FACULTEIT ECONOMIE EN BEDRIJFSKUNDE

Performance management implementation in higher education: Leaders, success conditions and implications for well-being and performance

Robin Bauwens
Student number: 00900683

Advisor: Prof. dr. Adelien Decramer

Dissertation submitted to the Ghent University Faculty of Economics and Business Administration in partial fulfilment of the requirements for the degree of Doctor in Business Economics

Academic year: 2018 – 2019

June 2019

UNIVERSITEIT GENT

Advisor

Prof. dr. Adelien Decramer

Department of Marketing, Innovation and Organisation, Ghent University

Advisory committee

Prof. dr. Mieke Audenaert (Secretary)

Department of Marketing, Innovation and Organisation, Ghent University

Prof. dr. Jeroen Huisman

Department of Sociology, Ghent University

Prof. dr. Carine Smolders

Department of Public Governance and Management, Ghent University

Examination board

Prof. dr. Patrick Van Kenhove (Chairman)

Dean of the Faculty of Economics and Business Administration, Ghent University

Prof. dr. Bram Verschuere

Department of Public Governance and Management, Ghent University

Prof. dr. Bert George

Department of Marketing, Innovation and Organisation, Ghent University

Department of Public Administration and Sociology, Erasmus University Rotterdam

Prof. dr. Jelle Mampaey

Faculty of Management, Science, and Technology, Open University of the Netherlands

PhD Series – Ghent University

Faculty of Economics and Business Administration

http://www.ugent.be/eb

Ignoranti quem portum petat,

nullus suus ventus est

If you don't know what port to sail for,

no wind is favorable

Lucius Annaeus Seneca
Epistolae Morales ad Lucilium, LXXI., 3.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS

Als scholier mocht mijn grootmoeder een prijs Frans in ontvangst nemen in de aula van de *Rijksuniversiteit Gent*. Deze gebeurtenis maakte op haar eenvoudige familie uit de Gentse havenvolkswijk Sluizeken-Ham zoveel indruk dat niemand durfde te gaan uit schrik *"in affronten te vallen bij die perfessers aan den unief"*. Mijn betovergrootvader stelde dan maar voor om haar te vergezellen. Hij liet zelfs speciaal voor de gelegenheid een nieuw kostuum maken. Ik heb geen idee hoe hij, een dokwerker, dat ooit heeft kunnen betalen. Desondanks zal de hele ceremonie nauwelijks meer dan vijf minuten in beslag hebben genomen. Mijn andere grootouders, hardwerkende producten van de Muide en het Van Beverenplein, zijn zelfs nooit tot in de 'Rijksuniversiteit' geraakt. Ondanks een duidelijke aanleg voor wiskunde bij beiden, hebben ze de ziel van hun lijf gewerkt bij ACEC (*Atelier de Constructions et Électriques de Charleroi*), tot dat in 1989 failliet ging. Mijn vader schopte het als enige familielid tot in het hoger onderwijs, mét een proefschrift over datzelfde faillissement. Het zijn enkele anekdotes die bij het afwerken van dit doctoraat meer dan eens door mijn hoofd hebben gespeeld en die mijn voeten steeds terug op de grond hebben geplaatst.

De tijden zijn (gelukkig) veranderd: in dezelfde stad, aan dezelfde universiteit die ze al meer dan tweehonderd jaar huisvest, heb ik kúnnen en mógen doctoreren. Ik ben daarvoor zeer dankbaar en ondanks enkele '*momentary lapses of reason*', heb ik dan ook ten volle van dit proces genoten. Een doctoraat was voor mij vooral een plezante ervaring en zeker geen lijdensweg waar ik blij ben vanaf te zijn. Dat het proces zo vlot is verlopen (en ik er hier zo positief over kan spreken), is te danken aan een topteam van twee 'straffe madammen' die zich vanaf het begin over mij hebben ontfermd. Ik heb het uiteraard over Adelien en Mieke.

Adelien, het is de gewoonte om in een doctoraat je promotor te bedanken, maar jij was een promotor met grote P. Het heeft eventjes geduurd voor onze 'LMX' zich heeft ontdooid, maar daar heeft het congres in Birmingham zeker bij geholpen. Niet te vergeten, heb ik twee van mijn verjaardagen met jou in het buitenland doorgebracht, waarvan één wachtend op een vlucht uit Milaan die maar niet wou vertrekken (en waar mijn troostprijs bestond uit een lauw biertje delen met Filip De Rynck). Ik ben blij dat je me hebt aangespoord om de lat hoog te leggen, dat je mij in vele projecten hebt betrokken om mijn blik te verruimen en kansen hebt gegeven om af en toe les te geven. Op die manier ben ik geen eendimensionale onderzoeker geworden.

Mieke, op papier was het misschien niet zo, maar voor mij was je een volwaardige copromotor (ik denk en hoop dat Adelien het mij zeker niet kwalijk neemt jou hier zo te noemen). Ik heb altijd graag met je samengewerkt en je oog voor detail is legendarisch (toegeven, daar heb ik al eens op gevloekt). Ook bedankt om tijdens de eindsprint een deel van Adelien haar ondersteunende rol over te nemen en secretaris te zijn, ondanks je zelf tot over je oren in het werk zat. Ik ben niet vergeten dat jij als eerste hebt gezegd dat ik het misschien wel ooit tot assistant professor zou kunnen schoppen, merci daarvoor.

Graag wil ook de andere leden van mijn begeleidingscommissie bedanken. Eerst en vooral Jeroen, om als *higher education celebrity*, doch met Nederlandse nuchterheid, jouw rol als commissielid waar te nemen. Ik herinner me dat ik voor onze eerste ontmoeting de instructies kreeg van Adelien om een zekere formele houding in acht te nemen, ik zou hier immers een grote meneer ontmoeten. Toen we vervolgens door jou werden ontvangen in fleece en op kousenvoeten dacht ik: dit is een man naar hart. Bedankt om me met de eerste survey en paper op weg te helpen, mij in te wijden in de wondere wereld van het reviewen en me een beetje te betrekken in CHEGG-groep. Door jou

voelde ik mij altijd toch nog een beetje verbonden met de Vakgroep Sociologie, waar mijn academische roots liggen.

Carine, bedankt om in mijn begeleidingscommissie te zetelen, ondanks het feit dat de combinatie met Brussel niet altijd eenvoudig was. Er zijn er niet velen die kunnen zeggen dat ze een Kabinetschef in hun begeleidingscommissie hebben zitten. Mede door Adelien, ben ik zeker dat een deeltje van jouw *spirit* in dit doctoraat is geslopen.

Bert, van alle mensen die ik hier vermeld heb jij wel de meest diverse rollen vervuld. Je bent begonnen als mijn bureaugenoot, doorgegroeid tot een 'stagemeester', inspiratiebron voor experimenteel onderzoek en uiteindelijk in mijn examencommissie beland. Bedankt voor alles wat je gedaan hebt, om me uit te nodigen in Rotterdam en om een voorbeeld van academisch leiderschap te zijn. Zonder jou had ik waarschijnlijk nooit de guts gehad om me in Tilburg kandidaat te stellen. Toch jammer dan we in het debat 'R vs. STATA' niet meteen zullen overeenkomen. Let's agree to disagree?

Bram, bedankt om deel te willen zijn van mijn examencommissie en er naast voorzitter ook het kwalitatief en maatschappelijk geweten te zijn. Tevens ook merci voor de toffe sportieve momenten, zoals de triatlon en het zwemkampioenschap (waar je een medaille binnenhaalde voor de faculteit) en de minder sportieve momenten (in een niet nader genoemd wielercafé). Zonder veel gezever, heb ik je authenticiteit als professor en als vakgroepvoorzitter altijd gewaardeerd en bewonderd. Dat je vervolgens de PhD-tutor award in de wacht hebt gesleept, is daar volgens mij een logische extentie van.

Jelle, bij jou denk ik in de eerste plaats aan het People Management in Education seminar in mei 2018, waar je mij begroette met de woorden: "*Robin, ik heb een probleem, mijn vrouw is aan het bevallen en mijn gsm is uitgevallen*". Dat je op die manier vader bent geworden van de eerste PME-

baby, maakte van jou dan ook de geknipte persoon om mijn examencommissie te vervolledigen. Bedankt om hiervan deel te willen uitmaken en mij als 'overgelopen socioloog' toch te wijzen op het belang van gelijkheid, diversiteit en de kritische traditie.

Als laatste lid wil ik ook de decaan, Patrick Van Kenhove bedanken om in de examencommissie te zetelen. Ik heb altijd uw open en aanspreekbare houding op prijs gesteld.

Naast mijn examencommissie ben ook veel verschuldigd aan mijn knotsgekke en overgetalenteerde HRM-collega's, die de voorbije jaren naast inspiratiebron ook een beetje familie waren. Eerst en vooral Marieke en Sara: jullie zijn een sterke *(employee) brand*. Veel succes met de laatste loodjes! Tine, het was zeer fijn om met jou de cursus Advanced HRM te doen, die ons op vele plaatsen in Nederland heeft gebracht. Ik ben zeker dat jij gaat schitteren bij je verdediging, dit najaar.

Kenn, het was plezant jou als bureaugenoot, *reviewer* en coach te hebben. We hebben veel gediscussieerd, modelletjes getekend en onze kop gebroken over verschillende analyses. Het heeft mij een gezonde afkeer van consensusberekeningen opgeleverd en jou een haat-liefdeverhouding met R. Ik hoop dat we in de toekomst naast gezond concurreren ook zullen kunnen samenwerken. Het is nu aan jou of om het in jouw eigen woorden te zeggen: *eyes on the prize*.

Thomas, het was niet makkelijk om in jouw voetsporen te treden, zeker omdat die voetsporen op momenten letterlijk en figuurlijk te groot aanvoelden. Ze beseffen in Leuven waarschijnlijk nog maar half hoeveel chance (en hoeveel werk ☺) ze gaan hebben met jou. Ook jij vervult een ereplaats op mijn lijstje van mensen met wie ik graag nog eens zou samenwerken.

Anouk, al was ik jouw 'UGent-peter', was het al snel duidelijk dat je mij op vlak van onderzoek, creativiteit en relativeringsvermogen met kop en schouders voorbijsteekt. Bedankt voor de positieve drive die je naar onze onderzoeksgroep hebt gebracht. Je bent een straffe madam en ik

ben zeker dat onze (onderzoeks)paden elkaar nog zullen kruisen. Succes nog met de podcasts! Ik zal af en toe eens zwaaien als ik Merksem passeer op weg naar Tilburg.

Jolien Muylaert, jouw doctorale reis is nog maar net gestart. Op die korte periode heb je al getoond wat je in je mars hebt en daarom ben ik ook vereerd dat ik in je begeleidingscommissie mag zetelen. Niemand die er nog aan twijfelt dat je die doctorale reis met succes zal doorstaan.

Ook bedankt aan Jolien Stremersch (mijn sportieve voorbeeld), Saskia (mijn duurzame voorbeeld), Sebastian (mijn planmatige voorbeeld), Victoria (mijn optimistische voorbeeld), Geert en Nicole (de tweede vader en moeder van de PhDs op de vakgroep), Kevin, Astrid, Fitri, Hira and Ebru. Ook bedank ik graag mijn huidige en voormalige vakgroep voorzitters, Paul en Alex voor de omkadering, steun en zeker ook de etentjes en vakgroepsuitjes. Alex, niet zolang geleden waren we aan elkaar geketend in een escaperoom. Daar heb ik gelukkig geen trauma aan overgehouden. Bedankt voor je boek en ik hoop dat je, samen met Sebastian, voor KAA Gent gaat blijven supporteren: ze hebben het immers hard nodig.

De Mercator-collega's wil bedanken voor de sfeer en gezelligheid in onze toffe tijd aan de Henleykaai en daarbuiten: Bra-vid, Daphne, Ben, Raf, Wouter, Tess, Evelien, Eva en Vanessa, maar ook Evi, Anja, Stefanie, Sarah, Ann-Sofie en Annelies. De innovatieve collega's zeg ik merci voor de talrijke lunches: Jarno, Jacob, Karlien, Laura, Laurence, Evy, Sarah, Jolien Roelandt, Ann, Kaat en Egle. En tot slot bedank ik de sportieve collega's Bram Van de Velde, Bart, Tine, Filip, en zeker ook nog eens Jolien Stremersch, Thomas, David en Bram Verschuere voor onze succesvolle (en vooral toffe) deelnames aan diverse evenementen van de triatlon en 't Exploot tot de watersportbaanloop, Ekiden en het Zwemkampioenschap.

Julia, Jeske en Mariëtte wil ik bedanken om van ons PME-congres een succes te maken en de basis te leggen voor onze toekomstige samenwerkingen (PME 2019 here we come)!

Daarnaast zou ik nog een mensen willen bedanken die, waarschijnlijk eerder onbewust, mijn carrière positief hebben beïnvloed en zonder wie ik hier vandaag niet zou staan: Greet Van Hoye en Bart Van de Putte om mij bij Adelien aan te raden. Ik heb mijn job in Gent in eerste plaats aan jullie twee te danken. Jean-Charles Languilaire wil ik bedanken om mij in te wijden in de wondere wereld van leiderschap en management, die mijn periode in Zweden tot een inspirerende ervaring hebben gemaakt.

Van mijn collega's naar mijn vrienden, die altijd garant staan voor gezelschapsspelletjes, levenslessen, politieke discussies en 'therapeutische pintjes': Robin en Laura (wanneer gaan we nog eens gaan eten?), Anna en Egidius (wanneer schaken we nog eens?), Servaas (wanneer lopen we nog eens?), Lorenz, Ruben, Davy en zeker ook Felix (er zijn immers weinig mensen zo zot om iemand eventjes met de auto in Zweden te gaan halen), Toke, Alisa, Katrien, Siriam, Hilke. Ten slotte wil ik mijn 'studievrienden' Johannes (onze poolsessies!) en Ruben Nuydt bedanken.

In de wetenschap geldt dat 'we staan op de schouders van reuzen', naar een citaat van de socioloog Robert Merton. Daarom wil ik mijn familie bedanken, omdat zij de reuzen zijn op wiens schouders ik sta. Eerst en vooral mijn grootouders, omdat ze hun vaardigheden, levenslessen en goede (alsook hun slechte) voorbeeld hebben doorgeven. Mijn ouders om me alle vrijheid te geven, me te steunen in alle vormen (daar kan ik een dankwoord op zich over schrijven), maar vooral om me te laten relativeren en de dingen door een andere bril te laten zien. Om mij, met wisselend succes, te leren '*nie neuten, nie pleue*', zoals een echte Gentenaar betaamt. Mijn 'kleine' zus om mijn voorbeeld te zijn in plantrekkerij, creativiteit en doorzettingsvermogen.

Save the best for last: er rest mij nog één belangrijk iemand te bedanken, maar tegelijk ook de moeilijkste. Ze is mijn beste maatje, mijn coach, mijn grootste supporter en zoveel meer. Haar steun (en vóóral haar geduld met mij) zijn op zich al een doctorstitel waardig. Wendy, de voorbije

jaren is dit doctoraat ook toch wel een stukje van jou geworden. Ik heb de oren van uw kop gezaagd en stresskip gespeeld. Tijdens ‘de eindsprint’ heb ik mijn taken in het huishouden en die als vriend grotendeels verwaarloosd. Jij hebt dat altijd opgevangen met een kwinkslag, het nodige relativeringsvermogen en jouw grenzeloze humor. Toen kwam er die vacature in Tilburg. Je hebt niet getwijfeld en mij meteen gesteund, wetende dat een mogelijke ‘ja’ ook (opnieuw) een grote aanpassing van jou zou vergen. Mede daarom groeit mijn bewondering voor jou elke dag weer een beetje meer, ook al hebben we toch al een paar kleine jaartjes op onze teller. Met jou aan mijn zijde, kan ik alles aan.

Robin

Gent, mei 2019

CHAPTER I:

General Introduction

"There is a commonly expressed view…that managing academics is, like herding cats, either impossible or pointless" (McCormack, Propper, & Smith, 2014, p. 535)

The quote above illustrates that managing academics is not a straightforward task. When conducted in an ill-advised way, such management efforts might risk being fruitless or doing more harm than good. Therefore, this dissertation aims to examine how performance management systems affect the well-being and performance of academic employees in higher education institutions. In an attempt to improve such systems, we will take a closer look at the role of leaders and a series of success conditions theorized to optimize the effects of performance management systems. In this dissertation, **leadership** is simply understood as a process of formal or informal behaviors and interactions to influence employees (Northouse, 2010). **Performance management systems** are defined as a series of human resource management (HRM) practices, like goal-setting, coaching and appraisal, which serve to goal-set, follow-up and evaluate the efforts of employees. The aim of performance management systems is to progress and develop employees' performances, as well as to ensure that their efforts are in accordance with organizational values and objectives (Aguinis, 2013; Van Dooren, Bouckaert, & Halligan, 2015). This introductory chapter sets out the context of performance management systems in higher education institutions as organizations (1.1). It explains how and why these institutions came to adopt performance management systems (1.1.1) and which challenges they have created for the **well-being** and **performance** of employees in higher education institutions (1.1.2). Subsequently, the chapter discusses which research

challenges scholars are currently confronted with (1.1.3), feeding into the purpose and approach of this dissertation (1.2), which revolves around four questions. First, what are the success conditions of performance management systems in higher education institutions? Second, how and when can higher education leaders support these success conditions? Third, how do these success conditions relate to diverse dimensions of academic employees' well-being (i.e. health, happiness, social) and performance (i.e. job and non-job related)? Finally, how can we empirically contribute to a middle range theory of performance management systems in higher education institutions?

1.1 Outline of the research problem

1.1.1 Performance management systems in higher education institutions

Since the '80s, higher education institutions within membership countries of the Organization for Economic Cooperation and Development (OECD) witnessed substantial challenges (OECD, 2017), including but not limited to problems of (1) democratization and financing; (2) competition and marketization; and (3) demonstrating accountability (Melo, Sarrico, & Radnor, 2010). First, the **massification of education** and the increased access to higher education studies in the post-war period resulted in a dramatic expansion in student numbers. This expansion almost inevitably constrained the operational and financial capacity of higher education institutions. While countries grew increasingly costly higher education systems, legislative bodies introduced cuts (e.g., notably in the United Kingdom) or alternative, more conditional funding systems. In response, leaders and managers within higher education institutions started to inquire on how to reconcile higher education access and productivity with quality under resource constraints (Hicks, 2012; Johnstone & Marcucci, 2010). Second, **competition and marketization** in higher education institutions rose sharply, not only in domestic 'markets', but increasingly on an international scale (Dobbins, Knill,

& Vögtle, 2011). International competition especially intensified due to influences as globalization and the Bologna Process. The latter represents a systematic process, set in motion in 1998, which aims at standardizing and enhancing the quality of higher education within the European Higher Education Area (EHEA; Broucker & De Wit, 2016). These cross-border market forces resulted in the social construction of a global war for excellence and status, as illustrated by a proliferation of institutional rankings, metrics and accreditations, continuously triggering higher education institutions to excel in their teaching and research (Brankovic, Ringel, & Werron, 2018; Hazelkorn, 2015). Finally, higher education institutions started to face increasing pressure from policymakers and societal stakeholders to demonstrate **accountability or responsibility** for the public funding and institutional autonomy they receive from their respective governments, ensuring such resources are utilized in an efficient and effective manner. This idea of accountability incited higher education leaders and managers to look for suited practices and regimes that are able to demonstrate such accountability externally and make the 'ivory tower' more transparent (Huisman, 2018; Jongbloed, Enders, & Salerno, 2008).

The complex challenges above placed **strategic HRM highly upon the agenda of higher education** institutions (Van den Brink, Fruytier, & Thunnissen, 2012). As higher education institutions adapted their missions and goals and sought ways to translate those to the employee level, performance-based approaches to HRM from the private sector, like performance management systems, emerged as strategically relevant ways to manage academic staff. (Decramer, Smolders, Vanderstraeten, & Christiaens, 2012a; Decramer, Smolders, Vanderstraeten, Christiaens, & Desmidt; 2012b). Performance management systems are defined as ensembles ('systems') of formal and informal HRM practices, like goal-setting, coaching, or performance appraisal, that help organizations in "identifying, measuring, and developing the performance of

individuals and teams" (Aguinis, 2013, p.2). Hereby, '**performance**' refers to every behavioral or attitudinal outcome of employees' work activities, which acts upon public values or the goals of the organization (Van Dooren et al., 2015). Performance management systems build upon *performance appraisal*, the traditional practice of evaluating employees. More specific, performance management systems extend performance appraisal with goal-setting and monitoring to create a *developmental process* during which leaders set clear goals or expectations for their employees (i.e. what is expected of them and in which situation) and ensure frequent feedback and follow-up on those goals and expectations, feeding into performance evaluations. Subsequently, a new cycle of planning, monitoring and evaluating can begin (DeNisi & Murphy, 2017; Pulakos, Mueller-Hanson, & Arad, 2018). Despite the fact that the nature and application of performance management systems can differ between and within organizations (i.e. suggesting they are an 'approaches' rather than 'tools'), authors like Brown et al. (2018) argue that all present-day organizations have some kind of performance management system in place.

The strategic relevance of performance management systems to higher education institutions is reflected in their ultimate goal, namely to bridge employees' performances with those of the organization or institution (Kalgin, Podolskiy, Parfenteva, & Campbell, 2018). This is realized by developing the accomplishments of employees, while ensuring that those accomplishments are streamlined with the mission and goals of the organization or institution (Boselie, Farndale, & Paauwe, 2012; DeNisi & Smith, 2014). In this way, performance management systems present themselves to leaders and managers in higher education institutions as a potential way to translate the complex requirements arising from democratization, competition and accountability to academic staff, while also dealing more consciously and transparently with (human) resources (Van den Brink et al., 2012).

The introduction of performance management systems in higher education institutions was not merely one of rational choice, nor an evolution that was uncontested (Decramer et al., 2012a; 2012b). Rather, performance management systems are a distinctive feature of **New Public Management (NPM) reforms** (Van Dooren et al., 2015), a broader series of institutional reforms that - through a combination of legal pressures, professionalization impulses and copying best practices - saw the incorporation of private sector ideas and practices into the larger public sector. NPM is a management philosophy and policy agenda that has inspired many public sector reforms worldwide (Hood, 1991; Tahar & Boutellier, 2013). It departs from the idea that public and private organizations could (or should) be managed in a similar fashion. NPM is characterized by, among others, the stimulation of competition and commercial activities; the institutionalization of financial incentives; the redefinition of leader and managerial roles; and a strong focus on autonomy, accountability and performance (Broucker, De Wit, & Leisyte, 2016; Dobbins et al., 2011). Important is that higher education institutions are traditionally not regarded as public organizations, rather they are often categorized as more *hybrid organizations* characterized by different degrees of publicness and privateness (Skelcher & Smith, 2015; Teelken, 2015). Nevertheless, NPM principles have been incorporated into the leadership and management of higher education institutions globally (Dobbins et al., 2011; Ferlie, Musselin, & Andressani, 2008). Consequentially, performance management systems feature in higher education institutions from Flanders (Decramer et al., 2012a; 2012b) to the United Kingdom, United States and The Netherlands (Van den Brink et al., 2012), as well as Finland (Kallio, Kallio, Tienari, & Hyvönen, 2016), Ghana (Abdulai, 2016) and Russia (Kalgin et al., 2018) among many others.

The advent of performance management systems in higher education institutions had a number of **important implications for the leadership and management of these institutions** (Hyde,

Clarcke, & Drennan, 2013). First, it meant a paradigm shift in thinking about higher education management (Kallio et al., 2016). Before the '80s, higher education institutions had predominantly collegial and bureaucratic models of management in place that, one the one hand allowed for academic freedom, autonomy and self-governance, one the other hand reinforced (archaic) academic norms, principles and hierarchies. The introduction of performance management systems saw the beginning of the end of these traditional systems in favor of more professionalized managerial systems that - at first glance - seemed better suited to deal with the challenges of higher education institutions (Dobbins et al., 2011; Melo et al., 2010). Second, performance management systems created a strong emphasis on measurable performance at all levels of higher education institutions, resulting in a proliferation of indicators, rankings and evaluation criteria (Lynch, 2015; Ter Bogt & Scapens, 2012; Taylor & Baines, 2012). In higher education institutions' quest to translate performance into measurable numbers, the dominant output of these institutions shifted from to research, at the detriment of education and other activities (Cadez, Dimovski, & Zaman Groff, 2017). Finally, the introduction of performance management systems went hand in hand with a decentralization of responsibilities (e.g., evaluation, training) from central HRM departments to senior researchers or professors (hereafter: research leaders), effectively turning these senior academics into a sort of 'part-time HR-managers' for the junior research and doctoral students in their team (Sousa, de Nijs, & Hendriks, 2010; McCormack et al., 2014; Verhoeven, 2010).

1.1.2 Intended and unintended effects

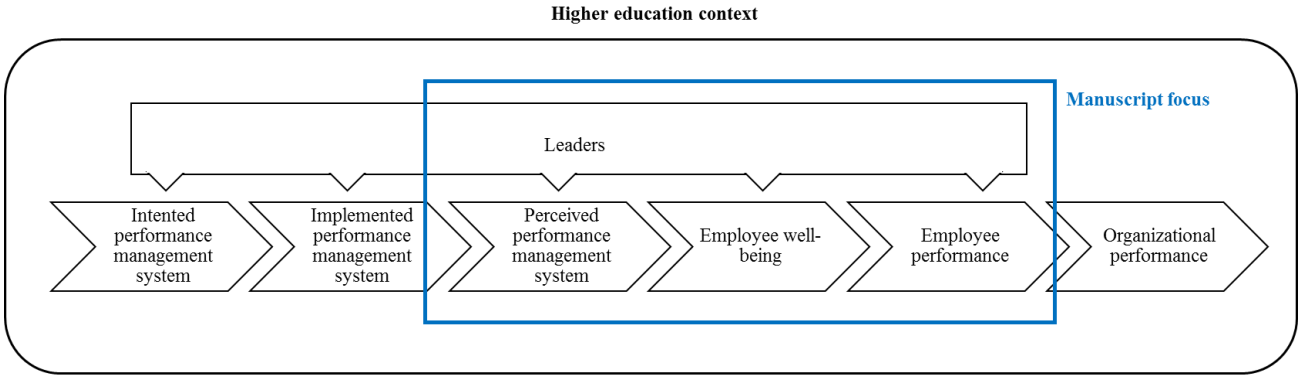
Despite higher education institutions' efforts to implement performance management systems, there is an intense debate among different scholars (e.g., in HRM, public management, higher

education studies) and practitioners whether these systems actually live up to their potential (George, Van de Walle, & Hammerschmid, 2019; Gerrish, 2016; Posthuma, Campion, & Campion, 2018; Van Dooren & Hoffmann, 2018). Underlying these debates is increasing attention for an '**employee perspective**' that focuses on employee-centered well-being and performance outcomes instead of being concerned with more financial and operational measures of performance (Guest, 2002; Farndale, Hope-Hailey, & Kelliher, 2011).

A central question in these debates is whether performance management systems stimulate employees' well-being and performance (i.e. *mutual benefits*), stimulates either well-being or performance at the expense of the other (i.e. *conflicting outcomes*) or, alternatively, has no stimulating effects (i.e. *no gains*) (Guest, 2017; Paauwe & Farndale, 2017). **Employee well-being** is defined as the quality of employees' experiences and functioning at work in terms of happiness, health and relationships (Grant, Christianson, & Price, 2007; Van de Voorde, Paauwe, & Van Veldhoven, 2012). **Employee performance** broadly refers to the various outcomes and outputs of employees' work activities (Van Dooren et al., 2015). Performance management systems can have distinct advantages for the well-being and performance of individual employees and the organizations to which they belong (Biron, Farndale, & Paauwe, 2011; Levy, Tseng, Rosen & Lueke, 2017). Among other benefits, performance management can increase employees' self-esteem, motivation, engagement and improve communication and goal comprehension among employees and their leaders (Aguinis, Joo, & Gottfredson, 2011; Aguinis, Gottfredson, & Joo, 2012). These *proximal or intermediate outcomes* of performance management systems are seen as ultimately serving more *distal organizational outcomes*, including financial or operational performance benefits (Biron et al., 2011; Gruman & Saks, 2011), enhanced organizational accountability, transparency and stakeholder legitimacy (Moynihan & Pandey, 2010). This causal

logic follows that of the HRM value chain, which sees employees' well-being as a crucial link between on the one hand HRM systems, such as performance management systems and on the other hand (organizational) performance) (Wright & Nishii, 2013). This is illustrated in Figure 1.1 below.

Figure 1.1: HRM value chain for performance management systems with manuscript focus[1]. (based on Wright & Nishii, 2013)



Despite these theoretical assertions, performance management systems have a reputation of being the 'Achilles Heel' of HRM, prone to **unintended effects** (Franco-Santos & Otley, 2018; Pulakos et al., 2018). These unintended effects include but are not limited to mounting work pressure, intensified internal competition, enhanced unethical behavior (i.e. goals becoming goals in themselves), strained social relations and increased administrative burdens (Kelman & Friedman, 2009; Ordóñez, Schweitzer, Galinsky, & Bazerman, 2009). Hereby, performance management systems often harm the well-being and performances of the employees involved (Kalgin et al., 2018). As generally late adopters of NPM reforms, critical concerns over implementation and unintended effects are **especially prevalent in higher education institutions**. Higher education

[1] The manuscript focus in Figure 1.1 corresponds to the so called 'black box' in HRM literature, a metaphor for the complex individual-level causal chain that links HRM systems, like performance management systems through individual-level outcomes to organizational-level outcomes (Wright & Nishii, 2013).

performance management systems have been observed to foster research output exponentially (Cadez et al., 2017), but also disrupt academic life and embargo the well-being and non-scientific performances of academic employees (Franco-Santos & Doherty, 2017; Kallio et al., 2016). Among others, performance management systems in higher education institutions are held responsible for higher burnouts (Barkhuizen, Rothmann, & Van De Vijver, 2014), lower job satisfaction (Pick, Teo, & Yeung, 2012), mental health problems (Levecque, Anseel, De Beuckelaer, Van der Heyden, & Gisle, 2017), mounting academic insecurity (Knights & Clarcke, 2014), plummeting intrinsic motivation (Jacobsen & Andersen, 2014) and reduced freedom and innovation in research (Kallio et al., 2016; Teelken, 2015).

Overall, these pessimistic observations about the current usage of performance management systems, especially in higher education institutions, do not seem to correspond to the idea of performance management systems as instruments for employee development and public accountability, as reflected in HRM (Aguinis et al., 2012) and public management respectively (Moynihan & Pandey, 2010; Van Dooren et al., 2015). In part, such observations can be ascribed to how performance management systems are implemented and given shape. Critical scholars, like Pulakos and O'Leary (2011), argue that organizations often intend well by introducing performance management systems, but that they quickly become reduced to *administrative formalities* that are decoupled from everyday work activities (i.e. end in themselves rather than means to an end). In similar ways, the focus of contemporary performance management implementation is often on incidental *performance appraisal*, which undermines the idea of performance management systems as continuous processes that combine appraisals with goal-setting and feedback (DeNisi & Murphy, 2017; Denisi & Smith, 2014).

1.1.3 Research challenges

Debates over the advantages and disadvantages of performance management systems have led to the emergence of a **nuanced view on performance management effectiveness**. This nuanced view challenges the traditional universalist view that performance management systems always yield beneficial outcomes and that there is a single best way to organize them. Instead, it favors a contingency and contextual approach that asserts that both the functional and dysfunctional effects of performance management systems are conditional (Franco-Santos & Otley, 2018; Teelken, 2012; Van Dooren et al., 2015). Hence, the subsequent enigma for researchers and practitioners became to unravel which conditions allow performance management systems to avoid unintended effects on employees' well-being and performance. However, underlying this enigma is a series of challenges that current research on performance management systems, especially that in higher education institutions, needs to overcome.

1. A dearth of research on the **success conditions** of performance management systems in the context of higher education (systems perspective and contextual HRM).
2. A shortage of **integrated studies** on performance management systems and leadership (people management).
3. A lack of attention to the diverse nature of (academic) employee outcomes at the detriment of a **balanced approach**.
4. A need to bridge **different research traditions**.

First, scholars over the past decade have embarked on a search for '**success conditions**' that could optimize the implementation of performance management systems and result in better outcomes

for both organizations and their employees. In this way, the unintended effects of performance management systems on employees' well-being and performances (see 1.1.2) could be significantly scaled down (Biron et al., 2011; Schleicher et al., 2018). Such success conditions derive their name from the fact that they strongly shape how employees perceive and experience such systems, and hence optimize the implementation of performance management systems. Employees' perceptions are important to effective performance management systems because how employees feel and perform is often based on perceptions they have about their direct work environment (e.g., Den Hartog, Boselie, & Paauwe, 2004; Jacobsen & Andersen, 2014; Sharma, Sharma, & Agarwal, 2016). Identifying success conditions for performance management systems fit a **systems perspective**. Such a perspective is not concerned with discussions about specific metrics or practices (i.e. the content of performance management systems). Instead, by identifying success conditions, the systems perspective tries to formulate broader design recommendations that can surpass metrics and practices that are often very specific to organizations, organizational units or timeframes (Schleicher et al., 2018). For example, the publication requirements to be eligible for a PhD defence between academic employees in penal law and chemical engineering are very different (no to say that such requirements in higher education are also subject to swift changes).

The quest for success conditions is complicated by the recent **'contextual turn' in HRM and public management** (Knies, Boselie, Gould-Williams, & Vandenabeele, 2015; O'Toole & Meier, 2015; Paauwe & Farndale, 2017). This contextual turn draws attention to the fact that management arrangements, like performance management systems, might react differently in different organizational contexts. In this sense, Kallio et al. (2017) point to a couple of important characteristics of higher education institutions that necessitate a closer examination between academic employees' perceptions of success conditions performance management systems and

their well-being and performance. For starters, higher education institutions (a) are 'loosely-coupled organizations', in which managerial dynamics might differ between various departments, teams or other organizational units. Furthermore, as knowledge management organizations (cf. Rowley, 2000), higher education institutions (b) deal with performances like teaching and research that are not always straightforward to translate into distinct goals and expectations. In addition, (c) academic employees are typically more intrinsically motivated and enjoy higher levels of autonomy compared to employees in other sectors. Such characteristics make managing academic employees a challenge (Kallio et al., 2016; 2017). Overall, these observations lead to suggest that the success conditions of performance management systems that are observed in other organizational contexts (cf. Schleicher et al., 2018), might not necessarily be successful in higher education institutions. That being said, **we know little about the success conditions of performance management systems in higher education environments**. With a few notable exceptions (e.g., Decramer, Smolders, & Vanderstraeten, 2013; Franco-Santos & Doherty, 2017), past research on performance management systems in higher education institutions has mostly focused on single practices like performance appraisal and pay-for-performance (e.g., Teh, Boerhannoeddin, & Ismail 2012; Wilkesmann & Schmid, 2012). A profound understanding of the success conditions of performance management systems in higher education contexts is necessary to (1) enable higher education institutions to better deal with the challenges that performance management systems pose to them and their staff (Franco-Santos & Doherty, 2017; Ringelhan, Wollersheim, and Welpe 2015) and (2) aid the overarching quest of identifying success conditions for the implementations of performance management systems in public organizations (Lee & Kim, 2012; Van Dooren & Hoffmann, 2018).

Second, management scholars recognize that the involvement of leaders is critical to successful performance management systems (Tseng & Levy, forthcoming). Studies in higher education also increasingly acknowledge the importance of leadership for the execution of management systems and responsibilities (Bolden et al., 2012; McCaffery, 2013; McCormack et al., 2014). Nevertheless, **leadership and performance management systems largely remain separately studied phenomena**. Few studies have examined how their parallel or joint effects affect the well-being and performance of employees (Boselie et al., 2012; Leroy, Segers, Van Dierendonck, & Den Hartog, 2018). Furthermore, the limited amount of integrated studies available have almost exclusively been conducted in public contexts outside of higher education, like elderly care, secondary education, local governments (e.g., Audenaert, Decramer, George, Verschuere, & Van Waeyenberg, 2019; Campell et al., 2016; Moynihan, Pandey, & Wright, 2012; Van Waeyenberg & Decramer, forthcoming). Progressing the number of integrated studies of leadership and performance management systems could foster our understanding of the potential interactions, synergies and counterbalances between leaders and performance management systems (Tseng & Levy, forthcoming). Particular in higher education, integrated studies of leadership and performance management could be instrumental to account for the complexity of both phenomena in higher education environments (Bolden et al., 2012; Kok & McDonald, 2017). Overall, such knowledge could serve the development of a people management framework for higher education institutions (cf. Knies & Leisink, 2014; 2018; Purcell & Hutchinson, 2007) and inform future leader development within the sector (Bolden et al., 2012).

Third, the central question in performance management research was long time whether performance management systems, as HRM systems, increase (financial and operational) outputs measures and indicators of performance (Biron et al., 2011; Boselie et al., 2012). It was until

scholars like Paauwe (2009) and Guest (2002; 2017) argued that such macro-organizational outcomes are influenced by many factors and constitute more *distal outcomes* of HRM and performance management systems. Since performance management systems should be concerned with developing employees, it makes more sense to focus on employee outcomes (i.e. their well-being and performances) as more *proximal outcomes* of performance management systems. Over the past few years, this focus on proximal outcomes has led to the emergence of an **employee perspective** on performance management systems (Decramer et al., 2015; Farndale et al., 2011; Gruman & Saks, 2011). While studies on performance management systems in higher education remain strongly concerned with output indicators of research performance (and to a lesser extent education and societal impact) (Ter Bogt & Scapens, 2012; Ringelhan et al., 2015), an employee perspective is also gaining increasing representation in higher education contexts (Decramer et al., 2013; Franco-Santos & Doherty, 2017; Melo et al., 2010).

Nevertheless, a blind spot of employee perspectives to performance management systems is their **lack of consideration given to a 'balanced approach'**. Such a balanced perspective implies that attention is given (a) not only to employees' performances, (i.e. managerial interests) but also to their well-being (i.e. employee interests), while (b) taking into account the full diversity of employees' well-being and performances. In other words, studies of performance management systems should take into account the different dimensions of employee well-being: *happiness well-being, health well-being* and *social well-being* (Franco-Santos & Doherty, 2017; Van de Voorde et al., 2012). In addition, studies of performance management systems should pay attention to the diverse ways in which employees can perform, that is not only focusing on *job-related performances*, but also on *non-job-performances* like innovation and organizational citizenship behavior (Welbourne, Johnson, & Erez, 1998). Taking into account such diversity is important, as

performance management systems might affect different dimensions of employees' well-being and performance in differential ways, resulting in either *mutual gains* (i.e. positive effects for both well-being an performance), *no gains* (i.e. negative effects for both well-being and performance) or *conflicting outcomes* (i.e. positive and/or effects for either well-being or performance) (Van de Voorde et al., 2012). Taking a balanced approach allows for a more nuanced understanding of performance management systems that could aid higher education institutions in moving beyond a narrow focus on judgmental (research) indicators and output towards more developmental performance management systems (Franco-Santos & Doherty, 2017; Kallio et al., 2017).

Fourth, performance management systems research is inherently challenging and complex, because it is spread out over different scientific traditions (Pulakos et al., 2018). In studying performance management systems and leadership in higher education institutions, **one finds itself at the crossroads of HRM, public management and higher education studies.** Each of these research traditions has a different lens of looking at performance management systems, leadership, well-being and performance, capable of offering valuable and complementary insights. For example, HRM studies of performance management systems have a strong empirical focus but are often in search of context (cf. Knies et al., 2015; Farndale & Paauwe, 2009). HRM studies are also typically more supportive of such systems (Latham, Almost, Mann, & Moore, 2005). Studies in higher education, on the other hand, are often more descriptive, have a stronger qualitative focus and tend to focus more on the negatives of management arrangements (Huisman, 2018; Melo et al., 2010; Tight, 2012). Finally, public management studies of performance management typically have a more macro character and have only recently given (renewed) attention to the employee perspective (Moynihan, 2018). From these observations, it seems clear that **bringing together these research traditions constitutes a challenge, as each tradition has its own strengths and**

drawbacks. Adding to this complexity, each of these research traditions has little theories of its own and often resort to *grand theories* from sociology, psychology and economics to make their claims (cf. Grimmelikshuijsen, Jilke, Olsen, & Tummers, 2017; Tight, 2012; Guest, 2011). Examples of grand theories often used to explain performance management systems are goal-setting theory (Latham, Borgogni, & Petitta, 2008) or social exchange theory (Shore, Coyle-Shapiro, Chen, & Tetrick, 2009). Such grand theories often lack explanatory power to explain specific phenomena (i.e., performance management systems, leadership, well-being, performance) in specific contexts (i.e. higher education institutions). Theory building has of old been an Achilles' heel of performance management research. Hence, we need empirically-founded *theories of the middle range* for performance management (Yang & Hsieh, 2007), leadership and their effects on employees' well-being and performance in the higher education context. Middle range theories could enable us to connect these grand theories with their micro-level foundations in different research traditions and effectively bridge the gaps between different research traditions underlying performance management systems, leadership and their outcomes. Hereby, such theories can help us to understand what is distinctive about the relationships between these phenomena (Abner, Kim, & Perry, 2017; Perry, 2010) in higher education, and in extension other public or hybrid contexts.

1.2 Dissertation approach

Having set out the research problem this section elucidates the purpose, research questions (1.2.1) and empirical scope of this dissertation (1.2.2). Subsequently, the theoretical (1.2.3) and methodological framework is presented (1.2.4). We conclude this section with an overview of the chapters in this corpus (1.2.5).

1.2.1 Purpose and research questions

In response to the previously highlighted research challenges, the present dissertation addresses the following four questions. In helicopter perspective, each of these questions features in each of the chapters of this manuscript (Chapter II-V), although the relative importance of each research question can vary between chapters.

1. What are the success conditions of performance management systems in higher education institutions?
2. What constitutes 'effective leadership' to support performance management implementation in higher education institutions, taking into account both formal (e.g. transformational leadership, expected contributions, offered inducements) and informal aspects of leadership (e.g., LMX, interactional fairness)?
3. How do the success conditions of performance management systems relate to diverse dimensions of academic employees' well-being (i.e. health, happiness, social) and performance (i.e. job and non-job related)?
4. How can we contribute to the development of a middle range theory that allows bridging different research traditions in the study of performance management systems, leadership, well-being and performance?

Answering these questions serves the over-coupling aim of *examining how and when performance management systems yield positive outcomes for the well-being and performance of academic employees in higher education institutions. In particular, how leadership and performance management success conditions contribute to such positive outcome*s. Herewith, this dissertation combines an **integrated approach** (i.e. people management) with a **balanced approach**. That is,

the focus lies on (a) parallel and interaction effects of performance management and leadership (Chapter II, III, IV), while (b) taking into account diverse dimensions of academic employees' well-being (Chapter II, III), performances (Chapter II, IV, V), as well as their interrelations (Chapter II, III, IV).

To achieve this aim, this dissertation uses the theoretical and empirical lens of **public HRM** (cf. Abner et al., 2017; Perry, 2010). Public HRM builds upon insights from HRM and public management, while taking into account the context and particularities of the specific organizations under study. To public management, public HRM owes its interest with management reforms in the public sector and its attention to various 'disadvantaged' stakeholders, like public employees, that are subjected to such reforms. To HRM, public HRM is accountable for its empirical preoccupation with *perceptions* as the foundation for their attitudes and behaviors (Jordan & Battaglio, 2014). Hereby, public HRM typically adopts a more micro-level and psychological perspective to public sector reforms and uses such a perspective to illustrate the importance of HRM and employees as human resources to public service delivery. Such a perspective also allows to better incorporate the specific work-related challenges and needs of public employees, which mainstream HRM often disregards (Burke, Noblet, & Cooper, 2013). Overall, taking a public HRM approach to performance management systems in higher education institutions implies recognizing the vital role the perceptions and personal experiences of academic employees play for the efficiency and effectiveness of such systems.

From a theoretical point of view, this dissertation contributes to the development of a middle range theory for the success conditions of performance management systems vis-à-vis academic employees' well-being and performance in higher education institutions. In this regard, this dissertation builds upon and extends people management (Knies & Leisink, 2014; 2018) and

contextual human resource management (Paauwe & Farndale, 2017) to performance management systems and leadership in higher education institutions. Ultimately, such a middle range theory furthers the overarching debate on performance management effectiveness (cf. DeNisi & Murphy, 2017; Posthuma et al., 2018; Schleicher et al., 2018; Tseng & Levy, forthcoming).

From a practical point of view, this dissertation taps into the knowledge base of the success conditions of performance management systems. Such knowledge could help higher education institutions to develop (developmental) performance management systems that can mitigate unintended effects on academic employees' well-being and performances, ultimately contributing to healthy and performant higher education institutions (Decramer et al., 2013; Franco-Santos & Doherty, 2017). In this sense, the practical contribution of this dissertation is pragmatic and not to provide leaders and managers in higher education with evidence of causal processes between performance management systems, leadership and their outcomes (i.e. 'evidence-based approach'; cf. Kroll & Moynihan, 2018; Posthuma et al., 2018).

1.2.2 Empirical scope

To achieve the above aim, the present dissertation focuses on non-professorial higher education staff within higher education institutions in Flanders (Belgium). This choice was motivated by internal validity to minimize variations at regional and job-characteristics level.

First, **non-professorial higher education staff**[2] refers to higher education employees that are engaged in teaching and research tasks, but do not hold the rank of assistant, associate or full

[2] This term was derived from Enders (2001). In Flanders, this corresponds to functions in 'group 1' and 'group 2' of the Codex Higher Education (Art. V. 1., Art. V. 120) and represents 78.82 % of higher education staff (Flemish Ministry for Education and Training, 2018).

professor. This includes predocs (PhD grant recipients, teaching assistants), postdocs, as well as nondocs (research assistants, lecturers) (Enders, 2001). A focus on non-professorial higher education staff is appealing, since they make up the vast majority of higher education staff (Flemish Ministry for Education and Training, 2018) and find themselves at the base of the academic hierarchy, a perspective which previous research has mostly ignored in favor of a focus on professorial staff (Evans, 2015). What is more, non-professorial higher education staff often have a more precarious employment position, enjoying lower levels of job security, freedom, autonomy and social prestige compared to professorial higher education staff. This renders them particularly vulnerable to management arrangements like performance management systems, with potential implications for their well-being and performances (Kehm & Teichler, 2015).

In Flanders, recent data from institutional well-being surveys, the expert center for research and development monitoring (ECOOM) and the Accreditation Organisation of the Netherlands and Flanders (NVAO) illustrate a more complex picture. On the one hand, overall research productivity and teaching quality are at an all-time high (ECOOM, 2015; NVAO, 2017), while non-professorial higher education staff scores relatively high on positive happiness-related well-being indicators, like job satisfaction and engagement. On the other hand, non-professorial staff also report generally high scores on negative health-related well-being indicators, like burnout and emotional exhaustion. Not only are these negative well-being scores higher than those of professorial staff (e.g., KU Leuven, 2015; Levecque, Baute, & Anseel, 2013; Levecque et al., 2017; Odisee, 2017), they are also significantly higher than the Flemish average (SERV, 2018). Adding that management arrangements and leaders have been hinted to play a role in this complex picture (Levecque et al., 2017), suggests more research is needed to comprehend how performance management systems and leadership relate to the well-being and performance of non-professorial employees in Flanders.

Second, **higher education institutions** constitute organizations that provide education at postsecondary or tertiary level. They typically include both *universities*, which have a predominant research and theoretical orientation, as well as more professional and practice-oriented institutions referred to as either *university colleges*, university of applied sciences or polytechnics (Kyvik & Lepori, 2010). Such a 'dual' conceptualization of higher education institutions is especially prevalent in Flanders, the context in which this doctoral manuscript is set. Anno 2019, the Flemish higher education landscape consists of five universities (Antwerp, Brussels, Ghent, Hasselt and Leuven) and thirteen university colleges (Arteveldehogeschool, Odisee, Erasmushogeschool, Hogere Zeevaartschool, Artesis Plantijn Hogeschool, Hogeschool Gent, Hogeschool PXL, Hogeschool West-Vlaanderen, LUCA School of Arts, Karel de Grote Hogeschool, Vives, Thomas More, and UC Leuven-Limburg) (Flemish Government, 2013, Art. II. 3). Each higher education institution in Flanders is predominantly publicly funded (Art. III. 1) and hence bound by the regulations of the Flemish Government, as stipulated in the Codex Higher Education. This codex prescribes that higher education institutions in Flanders should engage in regular goal-setting and evaluation of staff members in terms of their education and research activities (Art. II. 121-122; Art. V. 46). While performance management systems and approaches are practised in all higher education institutions in Flanders (Decramer et al., 2012a), the codex does not stipulate how goal-setting and evaluation should occur. In practice, this implies that performance management implementation in Flemish higher education is subjected to different levels of implementation and (in)formality within and between institutions.

A regional focus on Flanders is warranted, given that higher education policy and regulation in Belgium are regional responsibilities, resulting in the creation of "self-contained higher education systems" (Huisman & Mampaey, 2017, p. 205). Despite this peculiarity, the Flemish higher

education system is largely analogous to that of other Western-European countries. From an international point of view, a focus on Flanders is also interesting, as the region was among the pioneers in continental higher education reform and the adoption of NPM arrangements (Broucker, Huisman, Verhoeven, & De Wit, 2018), like performance management systems. In addition, much previous research on higher education institutions, as well as performance management systems have been conducted in Anglo-Saxon countries (McKenna, Richardson, & Manroop, 2011; Tight, 2012).

1.2.3 Theoretical framework

Despite over a century of research, there is currently no comprehensive framework that elucidates the success conditions of performance management systems and explains how they are related to employees' well-being and performances (Franco-Santos, Lucianetti, & Bourne, 2012). Initial attempts to construct such a framework focused on the different practices that make up the *content* of performance management systems, in particular that of performance appraisal (Denisi & Murphy, 2017). An important step forward was the **seminal work of Bowen and Ostroff (2004)**, advancing that research needed to move beyond a narrow focus on single practices towards a more in-depth understanding of the *process* by which such practices affect employee outcomes. The authors drew on theories from communication and psychology to link employees' perceptions and personal experiences of this process to their well-being and performances. In particular, they asserted that performance management systems (or other HRM systems) could foster employee outcomes providing those employees experience them as *distinctive* (i.e. provide in goals and expectations that are visible, understandable, relevant and authoritative) *consistently* applied and resting on *consensus* (i.e. fairness and agreement on cause-effects). A performance or HRM system

that meets the criteria of distinctiveness, consistency and consensus, they referred to as a 'strong system', because of its capability of directing employees' perceptions towards what is expected of them, in which situation and with what rationale. Given its continued relevance and inspirational value to many empirical studies (Ostroff & Bowen, 2016; Cafferkey, Heffernan, Harney, Dundon, & Townsend, forthcoming), we build upon this 'strength framework' to study the success conditions of performance management systems in higher education institutions. However, we extend it in two important ways.

First, we assert that it is also important that there is a *balanced employment relationship* underlying performance management systems (Den Hartog et al., 2004; Stiles, Gratton, Truss, Hope-Hailey, & McGovern, 1997). Therefore, we argue that the expectations placed on employees (i.e. expected contributions) should be in balance with the (im)material rewards employees received in return. For this addition, we build on job demands-resources theory (Bakker & Demerouti, 2014) and the work of Jia et al. (2013). Second, since the responsibility for performance management implementation ultimately falls down to leaders in different segments of the organization, the success of performance management should not be considered independent of *leadership*. Knies and Leisink (2014; 2018) recently advanced 'people management' as a theoretical framework that combines leadership with the implementation of HRM systems, like performance management systems. Therefore, we also include leadership as a success condition. An overview of our framework is displayed in Table 1.1. The remainder of this section explains these success conditions and their theoretical rationale.

Table 1.1: Proposed success conditions of performance management systems

		Theoretical framework	Conditions	Meta-conditions	Chapter
People management framework (Knies & Leisink, 2014)	Bowen & Ostroff (2004)	Goal-setting theory (Latham et al., 2008)	***Distinctiveness***	• Visibility • Understandability • Authority • Relevance	IV
		Signal theory (Biron et al., 2011)	***Consistency***	• Instrumentality • Validity • Consistent messages	III, IV
		Organizational justice theory (Greenberg, 1987)	***Consensus***	• (Agreement among HRM decision makers) • Fairness	II
		Job-demands-resources theory (Bakker & Demerouti, 2014)	***Balanced employee relationships***	• Offered inducements • Expected contributions	V
		Transformational leadership theory (Bass & Riggio, 2006) Leader-member exchange theory (Graen & Uhl-Bien, 1995)	***Leadership***	• Leader behavior • Leader-employee relationship	II-V

Since performance management systems start with goal-setting, a first condition is that these systems should provide clear and **distinct** goals and expectations. Employees should know what is expected of them and in which situation. This is all the more important in public (or hybrid) organizations, where goals are often conflicting, vague or ambiguous (Rainey & Jung, 2015). The importance of clear and distinct goals and expectations is prescribed by **goal-setting theory** (Latham et al., 2008), which states that clear goals and expectations are self-regulatory mechanisms with a strong motivating potential, because they direct employees' focus and energy towards goal-relevant activities and encourage those employees to persist in face of obstacles and constraints (Van der Hoek, Groeneveld, & Kuipers, 2018).

Second, performance management systems' processes of goal-setting, follow-up and evaluation should unfold in a **consistent** manner. It is imperative that performance management systems are coherent in the goals and expectations they set to employees, as well that employees receive follow-up and evaluation that is congruent with previously set goals. Hereby, consistent performance management systems can avoid employee confusion and frustration that originates from conflict between goals and expectations and how they are followed-up and evaluated (Li, Sanders, & Frenkel, 2012; Van Waeyenberg, Decramer, Desmidt, & Audenaert, 2017). The logic behind the consistency of performance management systems is **signal theory** (Spence, 1978; Biron et al., 2011), which states that employees, as active sense makers of the information that reaches them through goal-setting, follow-up and evaluation, can better grasp the underlying messages and intentions of performance management systems, when such is coherent and unambiguous. Hereby, signal theory draws attention to performance management systems as communication instruments that 'signal' the intentions organizations and their leaders hold towards their employees (Biron et al., 2011; Den Hartog et al., 2004).

Third, performance management systems should be **consensual**, meaning employees should understand the link between performance management systems, their own behaviors and the potential consequences (Bowen & Ostroff, 2004). An important aspect of consensual performance management systems is the extent to which employees consider performance management systems as fair, meaning the extent to which these systems adhere to employees' principles of moral righteousness (Ostroff & Bowen, 2016). Following **organizational justice theory** (Greenberg, 1987), employees are typically very sensitive to issues of moral righteousness in the workplace, particularly in terms of fair rewards, procedures and treatment. If employees consider a particular performance management system as unfair, those employees can become demotivated and

frustrated. In turn, this can undermine constrictive professional relationships and prevent employees from coping with negative experiences at work (Dewettinck & Van Dijk, 2013).

Fourth, while distinctiveness, consistency and consensus refer to the process of performance management systems (i.e. how goal-setting, follow-up and evaluation unfold), ultimately, it is the employment relationship that is central to performance management systems (Den Hartog et al., 2004). Ideally, performance management systems should strive towards a **balanced employment relationship**, in which the demands placed on employees (i.e. the set goals or expected contributions, like completing performance goals in quality and quantity) are proportional to the resources employees get in return (i.e. offered inducements like bonuses, training, empowerment, growth opportunities) (Baluch, 2017; Stiles et al., 1997). This is all the more important as this balance is increasingly precarious in public organizations (Audenaert, George, & Decramer, 2019) and in higher education institutions specifically (Devonport, Biscomb, & Lane, 2008). The importance of a balanced employment relationship is reflected in **job demands-resources theory** (Bakker & Demerouti, 2014), which states that employees' well-being and performance prospers when they have sufficient resources to cope with the demands in their job (and vice versa).

Finally, leaders fulfill a prominent role in the HRM value chain (Wright & Nishii, 2013). Therefore, it is important to keep in mind that **leaders** put performance management systems into practice (Den Hartog et al., 2004). Organizations can prescribe a certain formal performance management systems, but ultimately the responsibility falls to leaders in different segments of the organization to translate these formal processes (e.g. goal-setting, follow-up) into more informal and social practices (e.g., communicating expectations, giving feedback and coaching) with the employees in their team (Purcell & Hutchinson, 2007; Nishii & Paluch, 2018). This is not different in higher education institutions, where research leaders (i.e. senior professors and researchers in charge of a

team) are increasingly responsible for the management practices that make up performance management systems. For example, research leaders set deadlines and expectations on research output for their junior staff and ensure in timely feedback to assess the quality and progress. On the basis of those activities, research leaders form an evaluation whether initial expectations set to junior staff members were met or whether these expectations should be adapted in quality or quantity (McCormack et al., 2014; Sousa et al., 2010). Therefore, scholars increasingly argue that both the study and implementation of performance management systems should not be seen in a leadership vacuum. In this way, leadership is seen as an influence process that aids to fulfill the managerial functions of performance management systems. (Schleicher et al., 2018; Tseng & Levy, forthcoming). The leadership and the implementation of performance management systems can be combined in a **people management framework**. This theoretical framework advances that leadership and the implementation of performance management systems (or other HRM systems and practices) have a symbiotic relationship with each other that jointly shapes employees' well-being and performances (Knies & Leisink, 2014; 2018). To account for leadership in performance management implementation, Tummers and Knies (2013) distinguish between two approaches. The first approach focusses on the **behaviors of leaders** (i.e. formal leadership), as exemplified in transformational leadership. The second approach focusses on **leader-employee relationships** (i.e. informal leadership), as embodied in the concept of leader-member exchange (LMX). Past research suggests both approaches to leadership could matter for how performance management systems affect employees' well-being and performances (e.g., Audenaert et al., 2019; Campbell et al., 2016).

1.2.4 Methodological framework

Having set out the purpose, scope and theoretical framework, this section describes the methodological approach and methods that underlie the studies in this dissertation. Methodology-wise, the present manuscript draws upon the dominant **post-positivist paradigm** in studies of performance management systems (McKenna et al., 2011). Hence, this dissertation uses quantitative research designs to test hypothesized relationships between the variables and arrive at meaningful conclusions. Nevertheless, this dissertation recognizes that the observed statistical relations hold no universal truths over systems or employees, as reflected in the attention to context, perceptions and contingencies in each of the studies (cf. Abner et al, 2017; Paauwe & Farndale, 2017).

In Flanders, several data sources for non-professorial employees' well-being and performance are available (e.g., institutional well-being surveys, internal staff evaluations, ECOOM-surveys[3] and bibliographic data). While they provide a generalized overview of the well-being and performance of non-professorial employees, this existing data has a number of important limitations. First, data on well-being and internal management arrangements is often of a sensitive and/or confidential nature. This limits the extent to which such data is made available by institutions, at which level results can be consulted and the extent to which data can be linked to different staff profiles or other data sources.

Second, accessible performance data is often limited to bibliographic data. However, using bibliometrics as indicators of scholarly performance is not undisputed. Scholars assert that bibliometrics are not normally distributed (i.e. few researchers are often responsible for the

[3] In particular the surveys of junior researchers (2010, 2013, 2018) and survey of senior researchers (2010).

majority of publications) and are no automatic indication of quality or innovation (i.e. new insightful ideas are often introduced in lower-ranked journals, while more mainstream research published in more influential journals or book chapters). Furthermore, publications tend to naturally accumulate over time as one's career and tenure progress, are heavily dependent on the (sub)field and subject, while also placing an overemphasis on research performance (Aguinis, Shapiro, Antonacopolou, & Cummings, 2014; Belter, 2015). Therefore, the present dissertation builds upon **self-reported perceptual data** on performant management implementation, well-being and performance to test the hypothesized relationships between variables.

To collect the data, this dissertation predominantly adopts a classic **survey design** (Chapter II, III, V), which is viewed as a useful approach to examine perceptions. Hereby, we rely on measures with established psychometric properties to measure the variables under study, ensuring sufficient internal validity and reliability (Anderson, 2013). Following Cantarelli et al. (forthcoming), we also contribute to recent methodological development in public HRM by adopting a randomized **experimental design** with survey vignettes (Aguinis & Bradley, 2014) for combinations of different performance management conditions (Chapter IV). The data in this dissertations was collected among diverse academic employees (i.e. research and teaching assistants, PhD students, post-docs, lecturers) through structured questionnaires that were administered by means of either an online web-based tool (Qualtrics) or paper-and-pencil. Chapter II and Chapter III draw on data from academic research employees in the fields of science, technology, mathematics and engineering (STEM). Chapter IV uses data from academic research employees in social sciences. Finally, chapter V utilizes data from college lecturers.

The data in this dissertation is **cross-sectional**, as this kind of data can be easily collected and minimizes disturbances in the field, while giving a general indication of the associations between

the different variables under study (Anderson, 2013). Furthermore, the use of cross-sectional data is warranted when (a) dealing with variables that are perceptual in nature, like well-being; (b) variables have previously not been identified as sensitive to common-source bias and (c) other data sources are unavailable. Cross-sectional data does, however, constrain causality claims. Furthermore, this kind of data is prone to common source bias, which requires that the appropriate precautions are taken before and after the data collection (George & Pandey, 2017; Podsakoff et al., 2012).

To analyze the data, this dissertations uses **regression-based techniques** that derive from the generalized linear model framework (GLM) like structural equation modeling (Chapter II, III), ordinary least squares regression (Chapter IV) and hierarchical regression (Chapter V). Ordinary least squares regression is often considered a default analytical choice for simpler models. By contrast, structural equation modeling is particularly useful to assess (moderated) mediation effects and to simultaneously consider the latent structure of and structural relations between the variables under study (Green, 2016; Kline, 2011). Finally, hierarchical regression is advised to account for the clustered nature of data or for testing cross-level interaction effects (Hox, 2010).

1.2.5 Overview of the chapters

This section gives an overview of the studies in this manuscript. The present dissertation is written as a collection of four empirical papers, corresponding to the Chapters II to V. Table 1.2 gives an integrative overview of the chapters in terms of theoretical, conceptual and methodological approach**.**

Table 1.2. Overview of the chapters

	Chapter			
	II	**III**	**IV**	**V**
Theoretical framework	People management (Knies & Leisink, 2014; 2018) Contextual human resource management (Paauwe & Farndale, 2017)			
Theory	*Organizational Justice theory* (Greenberg, 1987)	*Signal theory* (Biron et al., 2011) Job characteristics theory (Morgeson & Humphrey, 2006)	*Goal-setting theory* (Latham et al., 2008)	*Job demands-resources theory* (Bakker & Demerouti, 2014)
Context / Scope	Universities (STEM)	Universities (STEM)	Universities (Social science)	University colleges (Overall)
Variables				
Leadership	Interactional fairness	Leader-member exchange (LMX)	Transformational leadership	Offered Inducements
Performance management	Distributive fairness Procedural fairness	Consistency	Consistency Distinctiveness	Expected contributions
Well-being	Burnout: emotional exhaustion (*health*) Burnout: disengagement from work (*health*)	Perceived societal impact (*sociall*) Job satisfaction (*happiness*)		Vitality (*happiness*)
Performance	Organizational citizenship behavior (*non-job related*)		Innovative work behavior (*job related*)	Team performance (*job-related*)
Design	Survey (cross-sectional)	Survey (cross-sectional)	Experimental vignette	Survey (cross-sectional)
Sample	University researchers (n = 532)	University researchers (n = 532)	University researchers (n = 178)	College lecturers (n = 215)
Technique	Structural equation modeling	Structural equation modeling	Ordinary least squares regression analysis	Hierarchical regression

Chapter II aims to increase our understanding of how academic employees' perceptions of performance management systems are linked to their well-being and performance. In particular, this chapter's objective was to examine (1) whether academic employees perceive performance management systems as fair in terms of rewards, procedures and personal treatment, as well as (2) how these perceptions affect burnout and organizational citizenship behaviors. Burnout constitutes an acute problem in higher education institutions and performance management systems have been designated as culprits (Barkhuizen et al., 2014). Likewise, scholars argue that performance management systems have a strong focus on individual performance, which might prevent employees from displaying more altruistic and proactive performances, like organizational citizenship behaviors (Teh et al., 2012). Hypotheses were formulated based on organizational justice theory (Greenberg, 1987) and tested by means of structural equation modeling in a sample of 532 academic research employees in science, technology, engineering and mathematics (STEM).

Chapter III takes a more people management approach. Hereby, this chapter aims to expand our understanding of how academic employees' perceptions of performance management systems interplay with their perceptions of leader relations to affect their well-being. More specially, this chapter's objective was to examine academic employees' perceptions of performance management systems consistency and leader-member exchange (LMX), in relation to their experiences of societal impact and job satisfaction. The chapter focuses on societal impact, as performance management systems' emphasis on goals and measurable performance is argued to alienate employees from the societal impact and outreach of their job (Tummers, Bekkers, & Steijn, 2009). Furthermore, academic employees' societal impact and its relationship with performance management systems enjoy increasing attention in higher education literature (Van der Weijden,

Verbree, & Van Den Besselaar, 2012; Watermeyer & Lewis, 2018). In addition, this chapter also focuses on job satisfaction, which is an important aspect of public professionals' well-being that is closely related with multiple beneficial employee and organizational outcomes within public organizations (Steijn, 2004; Wright & Davis, 2003). Hypotheses were formulated on the basis of signal theory (Biron et al., 2011) and job characteristics theory (Morgeson & Humphrey, 2006) and tested by means of structural equation modeling in a sample of 532 academic STEM research employees.

Chapter IV extends Chapter III by focusing on how academic employees' perceptions of leader behaviors interact with their perceptions of performance management systems. This chapter focuses on performance management system distinctiveness in addition to performance management consistency. Its objective was to examine how both conditions interact with academic employees' perceptions of transformational leadership to affect their innovative work behavior. Innovative work behavior is indispensable for organizations that are engaged in knowledge management or offer knowledge-based services (Bos-Nehles, Bondarouk, & Nijenhuis, 2017), like higher education institutions (Rowley, 2000). Furthermore, innovative work behavior is linked to the career success of academic employees, and ultimately the productivity and standing of the higher education institutions they belong to (Zacher & Johnson, 2015). Goal-setting theory (Latham et al., 2008) was used to develop the hypotheses, which were tested by means of an experimental vignette study (Aguinis & Bradley, 2014) in a sample of 178 academic research employees in social science.

Chapter V takes a look at whether academic employees' perceive a balance between the goals and expectations that are placed upon them in the context of performance management systems (i.e. expected contributions) in relation to the rewards they receive in return (i.e. offered inducements).

Furthermore, the chapter explores how academic employees' perceptions of expected contributions and offered inducements interact to affect their vitality and team performance. Job demands-resources theory (Bakker & Demerouti, 2014) was used to arrive at the hypotheses. Data came from 219 lecturers in 66 bachelor programmes in Flemish university colleges and was analyzed using hierarchical linear modeling.

Chapter VI concludes this dissertation with a general discussion of the four empirical chapters. Several theoretical implications are advanced in relation to the four research gaps this dissertation aims to address. In addition, attention is devoted to the limitation and future research directions. Finally, a couple of practical recommendations for higher education institutions are summarized.

1.3 References

Abdulai, M. (2016). *Performance management practices of universities in Ghana: An evaluation based on the balanced scorecard* (doctoral dissertation). University of Ghana, Legon.

Abner, G. B., Kim, S. Y., & Perry, J. L. (2017). Building evidence for public human resource management: Using middle range theory to link theory and data. *Review of Public Personnel Administration*, *37*(2), 139-159.

Aguinis, H. (2013). *Performance management* (Vol. 2). Boston, MA: Pearson.

Aguinis, H., & Bradley, K. J. (2014). Best practice recommendations for designing and implementing experimental vignette methodology studies. *Organizational Research Methods*, *17*(4), 351-371.

Aguinis, H., Gottfredson, R. K., & Joo, H. (2012). Delivering effective performance feedback: The strengths-based approach. *Business Horizons*, *55*(2), 105-111.

Aguinis, H., Joo, H., & Gottfredson, R. K. (2011). Why we hate performance management—And why we should love it. *Business Horizons*, *54*(6), 503-507.

Aguinis, H., Shapiro, D. L., Antonacopoulou, E. P., & Cummings, T. G. (2014). Scholarly impact: A pluralist conceptualization. *Academy of Management Learning & Education*, *13*(4), 623-639.

Anderson, V. (2013). *Research methods in human resource management: Investigating a business issue*. London, UK: Ashford Colour Press.

Audenaert, M., Decramer, A., George, B., Verschuere, B., & Van Waeyenberg, T. (2019). When employee performance management affects individual innovation in public organizations: The role of consistency and LMX. *The International Journal of Human Resource Management*, *30*(5): 815-834.

Audenaert, M., George, B., & Decramer, A. (2019). How a demanding employment relationship relates to affective commitment in public organizations: A multilevel analysis. *Public Administration*, *97*(1), 11-27.

Bakker, A. B., & Demerouti, E. (2014). Job demands–resources theory. In C. Cooper & P. Chen (eds.) *Wellbeing: A complete reference guide* (pp. 37–64). Chichester, UK: Wiley-Blackwell.

Baluch, A. M. (2017). Employee perceptions of HRM and well-being in nonprofit organizations: Unpacking the unintended. *The International Journal of Human Resource Management*, *28*(14), 1912-1937.

Barkhuizen, N., Rothmann, S., & Van De Vijver, F. J. (2014). Burnout and work engagement of academics in higher education institutions: Effects of dispositional optimism. *Stress and Health*, *30*(4), 322-332.

Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership*. Mahwah, NJ: Psychology Press.

Belter, C. W. (2015). Bibliometric indicators: opportunities and limits. *Journal of the Medical Library Association*, *103*(4), 219-212.

Biron, M., Farndale, E., & Paauwe, J. (2011). Performance management effectiveness: Lessons from world-leading firms. T*he International Journal of Human Resource Management*, *22*(06), 1294-1311.

Bolden, R., Gosling, J., O'Brien, A., Peters, K., Ryan, M. K., Haslam, S. A., Longsworth, L., Davidovic, A. & Winklemann, K. (2012). *Academic leadership: Changing conceptions, identities and experiences in UK higher education*. Retrieved from: https://ore.exeter.ac.uk/repository/bitstream/handle/10871/15098/academic_leadership_v1_19312.pdf?sequence=2&isAllowed=y

Boselie, P., Farndale, E., & Paauwe, J. (2012). Performance management. In C. Brewster & W. Mayrhofer (eds.) *Handbook of research on comparative human resource management* (pp. 369-329). Cheltenham, UK: Edward Elgar Publishing.

Bos-Nehles, A., Bondarouk, T., & Nijenhuis, K. (2017). Innovative work behaviour in knowledge-intensive public sector organizations: the case of supervisors in the Netherlands fire services. *The International Journal of Human Resource Management*, *28*(2), 379-398.

Bowen, D. E., & Ostroff, C. (2004). Understanding HRM–firm performance linkages: The role of the "strength" of the HRM system. *Academy of Management Review*, *29*(2), 203-221.

Brankovic, J., Ringel, L., & Werron, T. (2018). How rankings produce competition: The case of global university rankings. *Zeitschrift für Soziologie*, *47*(4), 270-288.

Broucker, B., & De Wit, K. (2016). What Europe wanted and what Flanders achieved: Intentions vs results after 15 years of Bologna. *Higher Education Policy*, *29*(3), 315-334.

Broucker, B., De Wit, K., & Leisyte, L. (2016). Higher education reform. In R. Pritchard, A. Pausits, & J. Williams (eds.). *Positioning higher education institutions* (pp. 19-40). Rotterdam, The Netherlands: Sense Publishers.

Broucker, B., Huisman, J., Verhoeven, J. C., & De Wit, K. (2018). The state of the art of higher education research on Flanders. In J. Huisman & M. Tight (eds.) *Theory and method in higher education research* (pp. 225-241). Bingley, UK: Emerald Publishing Limited.

Brown, T. C., O'Kane, P., Mazumdar, B., & McCracken, M. (2019). Performance management: A scoping review of the literature and an agenda for future research. *Human Resource Development Review, 18*(1), 47-82.

Burke, R. J., Noblet, A., & Cooper, C. L. (2013). *Human resource management in the public sector*. Bingley, UK: Emerald Publishing Limited.

Cadez, S., Dimovski, V., & Zaman Groff, M. (2017). Research, teaching and performance evaluation in academia: The salience of quality. *Studies in Higher Education, 42*(8), 1455-1473.

Cafferkey, K., Heffernan, M., Harney, B., Dundon, T., & Townsend, K. (forthcoming). Perceptions of HRM system strength and affective commitment: The role of human relations and internal process climate. *The International Journal of Human Resource Management*.

Campbell, J. W., Lee, H., & Im, T. (2016). At the Expense of others: Altruistic helping behaviour, performance management and transformational leadership. *Public Management Review, 18*(6), 795-818.

Cantarelli, P., Belle, N., & Belardinelli, P. (forthcoming). Behavioral public HR: Experimental evidence on cognitive biases and debiasing interventions. *Review of Public Personnel Administration*.

Decramer, A., Smolders, C., Vanderstraeten, A., & Christiaens, J. (2012a). The impact of institutional pressures on employee performance management systems in higher education in the Low Countries. *British Journal of Management*, *23*(S1), S88-S103.

Decramer, A., Smolders, C., Vanderstraeten, A., Christiaens, J., & Desmidt, S. (2012b). External pressures affecting the adoption of employee performance management in higher education institutions. *Personnel Review*, *41*(6), 686-704.

Decramer, A., Smolders, C., & Vanderstraeten, A. (2013). Employee performance management culture and system features in higher education: Relationship with employee performance management satisfaction. *The International Journal of Human Resource Management*, *24*(2), 352-371.

Decramer, A., Audenaert, M., Van Waeyenberg, T., Claeys, T., Claes, C., Vandevelde, S., Van Loon, J. & Crucke, S. (2015). Does performance management affect nurses' well-being?. *Evaluation and Program Planning*, *49*(1), 98-105.

Den Hartog, D. N., Boselie, P., & Paauwe, J. (2004). Performance management: A model and research agenda. *Applied Psychology*, *53*(4), 556-569.

DeNisi, A., & Murphy, K. (2017). Performance appraisal and performance management: 100 years of progress?. *Journal of Applied Psychology*, *102*(3), 421-433.

DeNisi, A., & Smith, C. E. (2014). Performance appraisal, performance management, and firm-level performance: A review, a proposed model, and new directions for future research. *The Academy of Management Annals*, *8*(1), 127-179.

Devonport, T., Biscomb, K., & Lane, A. (2008). Sources of stress and the use of anticipatory, preventative and proactive coping strategies by higher education lecturers. *Journal of Hospitality, Leisure, Sports and Tourism Education*, *7*(1), 70-81.

Dewettinck, K., & Van Dijk. (2013). Linking belgian employee performance management system characteristics with performance management system effectiveness: Exploring the mediating role of fairness. *The International Journal of Human Resource Management*, *24*(4): 806–25.

Dobbins, M., Knill, C., & Vögtle, E. M. (2011). An analytical framework for the cross-country comparison of higher education governance. *Higher Education*, *62*(5), 665-683.

ECOOM (2017). *Vlaams indicatorenboek 2017*. Retrieved from: https://www.vlaanderen.be/nl/publicaties/detail/vlaams-indicatorenboek-2017

Enders, J. (2001). A chair system in transition: Appointments, promotions, and gate-keeping in German higher education. *Higher education*, *41*(1-2), 3-25.

Evans, L. (2015). What academics want from their professors: findings from a study of professorial academic leadership in the UK. In U. Teichler & W.K. Cummings (eds.) *Forming, recruiting and managing the academic profession* (pp. 51-78). Cham, Switzerland: Springer.

Farndale, E., Hope-Hailey, V., & Kelliher, C. (2011). High commitment performance management: The roles of justice and trust. *Personnel Review*, *40*(1), 5-23.

Ferlie, E., Musselin, C., & Andresani, G. (2008). The steering of higher education systems: A public management perspective. *Higher Education*, *56*(3), 325-348.

Flemish Government. (2013). *Besluit van de Vlaamse regering tot codificatie van de decretale bepalingen betreffende het hoger onderwijs*. [decree of the Flemish government codifying decreed provisions concerning higher education]. Retrieved from: http://data-onderwijs.vlaanderen.be/edulex/document.aspx?docid=14650.

Flemish Ministry for Education and Training (2018). *Statistisch jaarboek van het Vlaams onderwijs 2017-2018* [Statistical yearbook of higher education in Flanders 2017-2018]. Retrieved from: https://onderwijs.vlaanderen.be/nl/nl/onderwijsstatistieken/statistisch-jaarboek/voorpublic atie-statistisch-jaarboek-van-het-vlaams-onderwijs-2017-2018.

Franco-Santos, M., & Doherty, N. (2017). Performance management and well-being: A close look at the changing nature of the UK higher education workplace. *The International Journal of Human Resource Management, 28*(16), 2319-235.

Franco-Santos, M., Lucianetti, L., & Bourne, M. (2012). Contemporary performance measurement systems: A review of their consequences and a framework for research. *Management accounting research, 23*(2), 79-119.

Franco-Santos, M., & Otley, D. (2018). Reviewing and theorizing the unintended consequences of performance management systems. *International Journal of Management Reviews, 20*(3), 696-73.

George, B., & Pandey, S. K. (2017). We know the Yin—But where is the Yang? Toward a balanced approach on common source bias in public administration scholarship. *Review of Public Personnel Administration, 37*(2), 245-27.

George, B., Van de Walle, S., & Hammerschmid, G. (2019). Institutions or Contingencies? A Cross-Country Analysis of Management Tool Use by Public Sector Executives. *Public Administration Review, 79*(3), 330-342.

Gerrish, E. (2016). The impact of performance management on performance in public organizations: A meta-analysis. *Public Administration Review, 76*(1), 48-66.

Grant, A. M., Christianson, M. K., & Price, R. H. (2007). Happiness, health, or relationships? Managerial practices and employee well-being tradeoffs. *Academy of Management Perspectives, 21*(3), 51-63.

Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly, 6*(2), 219-247.

Green, T. (2016). A methodological review of structural equation modelling in higher education research. *Studies in Higher Education*, *41*(12), 2125-2155.

Greenberg, J. (1987). A taxonomy of organizational justice theories. *Academy of Management Review*, *12*(1), 9-22.

Grimmelikhuijsen, S., Jilke, S., Olsen, A. L., & Tummers, L. (2017). Behavioral public administration: Combining insights from public administration and psychology. *Public Administration Review*, *77*(1), 45-56.

Gruman, J. A., & Saks, A. M. (2011). Performance management and employee engagement. *Human Resource Management Review*, *21*(2), 123-136.

Guest, D. E. (2002). Human resource management, corporate performance and employee wellbeing: Building the worker into HRM. *The Journal of Industrial Relations*, *44*(3), 335-358.

Guest, D. E. (2011). Human resource management and performance: Still searching for some answers. *Human Resource Management Journal*, *21*(1), 3-13.

Guest, D. E. (2017). Human resource management and employee well-being: Towards a new analytic framework. *Human Resource Management Journal*, *27*(1), 22-38.

Hazelkorn, E. (2015). *Rankings and the reshaping of higher education: The battle for world-class excellence*. Springer.

Hicks, D. (2012). Performance-based university research funding systems. *Research Policy*, *41*(2), 251-261.

Hood, C. (1991). A public management for all seasons? *Public Administration*, *69*(1), 3-19.

Hox, J. J. (2010). *Multilevel Analysis Techniques and Applications*. New York, NY: Routlegde.

Huisman, J. (2018). Accountability in higher education: different forms, functions and forums. In E. Hazelkorn, H. Coates, & A. McCormick (eds.) *Research Handbook on Quality, Performance and Accountability in Higher Education*. Edward Elgar Publishing.

Huisman, J., & Mampaey, J. (2017). Setting up associations in Flemish higher education. In H. de Boer, J. File, J. Huisman, M. Seeber, M. Vukasovic, & D. Westerheijden (eds) *Policy Analysis of Structural Reforms in Higher Education* (pp. 205-223). Cham, Switzerland: Palgrave Macmillan.

Hyde, A., Clarke, M., & Drennan, J. (2013). The changing role of academics and the rise of managerialism. In B. M. Kehm, & U. Teichler (Eds.), *The academic profession in Europe: New tasks and new challenges* (pp. 39–52). Dordrecht, The Netherlands: Springer.

Jacobsen, C.B., & Andersen, L.B. (2014). Performance management for academic researchers: How publication command systems affect individual behavior. *Review of Public Personnel Administration*, *34*(2), 84-107.

Johnstone, D. B., & Marcucci, P. N. (2010). *Financing higher education worldwide: Who pays? Who should pay?*. Baltimore, MD: John Hopkins University Press.

Jongbloed, B., Enders, J., & Salerno, C. (2008). Higher education and its communities: Interconnections, interdependencies and a research agenda. *Higher Education*, *56*(3), 303-324.

Jordan, T., & Battaglio Jr, R. P. (2014). Are we there yet? The state of public human resource management research. *Public Personnel Management*, *43*(1), 25-57.

Kalgin, A., Podolskiy, D., Parfenteva, D., & Campbell, J. W. (2018). Performance management and job-goal alignment: A conditional process model of turnover intention in the public sector. *International Journal of Public Sector Management*, *31*(1), 65-8.

Kallio, K, & Kallio, T. (2012). Management-by-results and performance measurement in universities – Implications for work motivation. *Studies in Higher Education*, *39*(4), 574–589.

Kallio, K., Kallio, T., Tienari, J., & Hyvönen, T. (2016). Ethos at stake: Performance management and academic work in universities. *Human Relations*, *69*(3), 685–709.

Kallio, K., Kallio, T., & Grossi, G. (2017). Performance measurement in universities: Ambiguities in the use of quality versus quantity in performance indicators. *Public Money & Management*, *37*(4), 293-3.

Kelman, S., & Friedman, J. N. (2009). Performance improvement and performance dysfunction: An empirical examination of distortionary impacts of the emergency room wait-time target in the English National Health Service. *Journal of Public Administration Research and Theory*, *19*(4), 917-946.

Kline, R. (2011). *Principles and practice of structural equation modeling*. New York: Guilford Press.

Knies, E, Boselie, P, Gould-Williams, J, & Vandenabeele, W (2015). Strategic human resource management and public sector performance: context matters. *The International Journal of Human Resource Management, 26*(3): 421–424.

Knies, E., & Leisink, P. (2014). Linking people management and extra-role behaviour: Results of a longitudinal study. *Human Resource Management Journal*, *24*(1), 57-76.

Knies, E., & Leisink, P. (2018). People management in the public sector. In C. Brewster & J. Cerdin (Eds.), *Not for the money: Human resource management in mission driven organizations* (pp. 15–46). Cham, Switzerland: Palgrave/Macmillan.

Knights, D., & Clarke, C. A. (2014). It's a bittersweet symphony, this life: Fragile academic selves and insecure identities at work. *Organization Studies*, *35*(3), 335-357.

Kok, S. K., & McDonald, C. (2017). Underpinning excellence in higher education–an investigation into the leadership, governance and management behaviours of high-performing academic departments. *Studies in Higher Education*, *42*(2), 210-231.

Kroll, A., & Moynihan, D. P. (2018). The design and practice of integrating evidence: Connecting performance management with program evaluation. *Public Administration Review*, *78*(2), 183-194.

KU Leuven (2015). *Tevredenheidsmonitor 2015: Een overzicht van de krachtlijnen van de resultaten op organisatieniveau.*

Kyvik, S., & Lepori, B. (2010). Research in higher education institutions outside the university sector. In S. Kyvik & B. Lepori (eds.) *The research mission of higher education institutions outside the university sector* (pp. 3-21). Dordrecht, The Netherlands: Springer.

Latham, G. P., Almost, J., Mann, S., & Moore, C. (2005). New developments in performance management. *Organizational Dynamics*, *34*(1), 77-87.

Latham, G. P., Borgogni, L., & Petitta, L. (2008). Goal setting and performance management in the public sector. *International Public Management Journal*, *11*(4), 385-403.

Lee, J. W., & Kim, S. E. (2012). Searching for a strategic fit: An empirical analysis of the conditions for performance management implementation in US federal agencies. *Public Performance & Management Review*, *36*(1), 31-53.

Leroy, H., Segers, J., Van Dierendonck, D., & Den Hartog, D. (2018). Managing people in organizations: Integrating the study of HRM and leadership. *Human Resource Management Review*, *28*(3), 249-257.

Levecque, K., Anseel, F., De Beuckelaer, A., Van der Heyden, J., & Gisle, L. (2017). Work organization and mental health problems in PhD students. *Research Policy*, *46*(4), 868-879.

Leveque, K., Baute, S., & Anseel, F. (2013). *Junior onderzoeker in Vlaanderen anno 2013: over dromen en realiteiten*. ECOOM, 2013(8).

Levy, P. E., Tseng, S. T., Rosen, C. C., & Lueke, S. B. (2017). Performance management: a marriage between practice and science–just say "I do". In M. Buckley, A. Wheeler, & J. Halbesleben (eds.) *Research in personnel and human resources management* (pp. 155-213). Bingley, UK: Emerald Publishing Limited.

Li, X., Sanders, K., & Frenkel, S. (2012). How leader–member exchange, work engagement and HRM consistency explain Chinese luxury hotel employees' job performance. *International Journal of Hospitality Management*, *31*(4), 1059-1066.

Lynch, K. (2015). Control by numbers: New managerialism and ranking in Higher Education. *Critical Studies in Education*, *56*(2), 190–207.

NVAO (2017). *Overzichtsrapport instellingsreview Vlaanderen*. Retrieved from: https://www.nvao.net/files/attachments/.131/Overzichtsrapport_instellingsreviews_2017.pdf

Marginson, S. (2011). Higher education and public good. *Higher Education Quarterly*, *65*(4), 411-433.

McCaffery, P. (2013). *The higher education manager's handbook: effective leadership and management in universities and colleges*. London, U.K.: Routledge.

McCormack, J., Propper, C., & Smith, S. (2014). Herding cats? Management and university performance. *The Economic Journal*, *124*(578), F534-F564.

McKenna, S., Richardson, J., & Manroop, L. (2011). Alternative paradigms and the study and practice of performance management and evaluation. *Human Resource Management Review*, *21*(2), 148-157.

Melo, A. I., Sarrico, C. S., & Radnor, Z. (2010). The influence of performance management systems on key actors in universities: The case of an English university. *Public Management Review*, *12*(2), 233-254.

Morrish, L., & Sauntson, H. (2016). Performance management and the stifling of academic freedom and knowledge production. *Journal of Historical Sociology*, *29*(1), 42–64.

Moynihan, D. (2018). A great schism approaching? Towards a micro and macro public administration. *Journal of Behavioral Public Administration*, 1(1).

Moynihan, D. P., & Pandey, S. K. (2010). The big question for performance management: Why do managers use performance information? *Journal of Public Administration Research and Theory*, *20*(4), 849-866.

Moynihan, D., Pandey, S., & Wright, B. (2012). Setting the table: How transformational leadership fosters performance information use. *Journal of Public Administration Research and Theory*, *22*(1), 143-164.

Nishii, L. H., & Paluch, R. M. (2018). Leaders as HR sensegivers: Four HR implementation behaviors that create strong HR systems. *Human Resource Management Review*, *28*(3), 319-323.

Northouse, P. G. (2010). *Leadership: Theory and practice*. Thousand Oaks, CA: Sage publications.

Odisee (2017). *Jaarverslag academiejaar 2015-2016*. Retrieved from: https://www.odisee.be/sites/default/files/Jaarverslag%20webversie%202015-2016.pdf

OECD (2017). *The state of higher education 2015-16.* Retrieved from: http://www.oecd.org/education/imhe/The%20State%20of%20Higher%20Education%202015-16.pdf

Ordóñez, L. D., Schweitzer, M. E., Galinsky, A. D., & Bazerman, M. H. (2009). Goals gone wild: The systematic side effects of overprescribing goal setting. *Academy of Management Perspectives*, *23*(1), 6-16.

Ostroff, C., & Bowen, D. E. (2016). Reflections on the 2014 decade award: Is there strength in the construct of HR system strength?. *Academy of Management Review*, *41*(2), 196-214.

O'Toole Jr, L. J., & Meier, K. J. (2014). Public management, context, and performance: In quest of a more general theory. *Journal of Public Administration Research and Theory*, *25*(1), 237-256.

Paauwe, J. (2009). HRM and performance: Achievements, methodological issues and prospects. *Journal of Management Studies*, *46*(1), 129-142.

Paauwe, J., & Farndale, E. (2017). *Strategy, HRM, and performance: A contextual approach*. Oxford, UK: Oxford University Press.

Perry, J. L. (2010). A strategic agenda for public human resource management research. *Review of Public Personnel Administration*, *30*(1), 20-43.

Pick, D., Teo, S., & Yeung, M. (2012). Friend or foe? New managerialism and technical, administrative and clerical support staff in Australian universities. *Higher Education Quarterly*, *66*(1), 3-23.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, *63*(1), 539-569.

Posthuma, R. A., Charles Campion, M., & Campion, M. A. (2018). A taxonomic foundation for evidence-based research on employee performance management. *European Journal of Work and Organizational Psychology*, *27*(2), 168-187.

Pulakos, E.D., Mueller-Hanson, R., & Arad, S. (2018). The evolution of performance management: Searching for value. *Annual Review of Organizational Psychology and Organizational Behavior*, *6*(1), 1.1-1.23.

Pulakos, E. D., & O'Leary, R. S. (2011). Why is performance management broken? *Industrial and Organizational Psychology*, *4*(2), 146-164.

Purcell, J., & Hutchinson, S. (2007). Front-line managers as agents in the HRM-performance causal chain: theory, analysis and evidence. *Human Resource Management Journal*, *17*(1), 3-2.

Rainey H.G., Jung C.S. (2015). A conceptual framework for analysis of goal ambiguity in public organizations. *Journal of Public Administration Research and Theory*, *25*(1), 71-99.

Ringelhan, S., Wollersheim, J., & Welpe, I. (2015). Performance management and incentive systems in research organizations: Effects, limits and opportunities. In I. Welpe, J. Wollersheim, S. Ringelhan, & M. Osterloh (eds.). *Incentives and performance – Governance of research organizations* (pp. 87–103). Heidelberg, Germany: Springer.

Rowley, J. (2000). Is higher education ready for knowledge management? *International Journal of Educational Management*, *14*(7), 325-333.

Schleicher, D. J., Baumann, H. M., Sullivan, D. W., Levy, P. E., Hargrove, D. C., & Barros-Rivera, B. A. (2018). Putting the system into performance management systems: A review and Agenda for performance management research. *Journal of Management*, *44*(6), 2209-2245.

Selden, S., & Sowa, J. E. (2011). Performance management and appraisal in human service organizations: Management and staff perspectives. *Public Personnel Management*, *40*(3), 251-264.

SERV (2018). *Acute psychische vermoeidheidsproblemen bij werknemers en zelfstandigen: Analyse op basis van de Vlaamse werkbaarheidsmonitor 2004-2016*. Retrieved from: http://www.serv.be/sites/default/files/documenten/SERV_DB_20180314_psychischevermoeidheid_RAP_stia.pdf

Sharma, N. P., Sharma, T., & Agarwal, M. N. (2016). Measuring employee perception of performance management system effectiveness: Conceptualization and scale development. *Employee Relations*, *38*(2), 224-247.

Shore, L. M., Coyle-Shapiro, J. A., Chen, X. P., & Tetrick, L. E. (2009). Social exchange in work settings: Content, process, and mixed models. *Management and Organization Review*, *5*(3), 289-302.

Skelcher, C., & Smith, S. R. (2015). Theorizing hybridity: Institutional logics, complex organizations, and actor identities: The case of nonprofits. *Public Administration*, *93*(2), 433-448.

Sousa, C. A., de Nijs, W. F., & Hendriks, P. H. (2010). Secrets of the beehive: Performance management in university research organizations. *Human Relations*, *63*(9), 1439-146.

Spence, M. (1978). Job market signaling. In A. Diamond & M. Rothschild (eds.) *Uncertainty in Economics* (pp. 281-306). New York, NY: Academic Press.

Stiles, P., Gratton, L., Truss, C., Hope-Hailey, V., & McGovern, P. (1997). Performance management and the psychological contract. *Human Resource Management Journal*, *7*(1), 57-66.

Tahar, S., & Boutellier, R. (2013). Resource allocation in higher education in the context of New Public Management. *Public Management Review*, *15*(5), 687-711.

Taylor, J., & Baines, C. (2012). Performance management in UK universities: Implementing the balanced scorecard. *Journal of Higher Education Policy and Management*, *34*(2), 111-124.

Teelken, C. (2015). Hybridity, coping mechanisms, and academic performance management: Comparing three countries. *Public Administration*, *93*(2), 307-323.

Teh, C. J., A. Boerhannoeddin, and A. Ismail. 2012. “Organizational culture and performance appraisal process: Effect on organizational citizenship behaviour.” *Asian Business & Management*, *11*(4): 471–84.

Teichler, U., & Cummings, W.K. (2015). *Forming, recruiting and managing the Academic Profession*. Cham, Switzerland: Springer.

Ter Bogt, H. J., & Scapens, R. W. (2012). Performance management in universities: Effects of the transition to more quantitative measurement systems. *European Accounting Review*, *8*(1), 1–47.

Tight, M. (2012). *Researching higher education*. Maidenhead, England: McGraw-Hill Education.

Tseng, S. T., & Levy, P. E. (forthcoming). A multilevel leadership process framework of performance management. *Human Resource Management Review*.

Tummers, L. G., & Knies, E. (2013). Leadership and meaningful work in the public sector. *Public Administration Review*, *73*(6), 859-868.

Van den Brink, M., Fruytier, B., & Thunnissen, M. (2013). Talent management in academia: Performance systems and HRM policies. *Human Resource Management Journal*, *23*(2), 180-195.

Van de Voorde, K. (2010). *HRM, employee well-being and organizational performance: A balanced perspective* (doctoral dissertation). Ridderkerk: Ridderprint.

Van De Voorde, K., Paauwe, J., & Van Veldhoven, M. (2012). Employee well-being and the HRM–organizational performance relationship: A review of quantitative studies. *International Journal of Management Reviews*, *14*(4), 391-407.

Van der Hoek, M., Groeneveld, S., & Kuipers, B. (2018). Goal setting in teams: Goal clarity and team performance in the public sector. *Review of Public Personnel Administration*, *38*(4), 472-493.

Van der Weijden, I., Verbree, M., & Van Den Besselaar, P. (2012). From bench to bedside: the societal orientation of research leaders: The case of biomedical and health research in the Netherlands. *Science and Public Policy, 39*(3), 285-303.

Van Dooren, W., Bouckaert, G., & Halligan, J. (2015). *Performance management in the public sector*. London, U.K.: Routledge.

Van Dooren, W., & Hoffmann, C. (2018). Performance Management in Europe: An idea whose time has come and gone? In E Ongaro & S. Van Thiel (eds.) *The Palgrave Handbook of Public Administration and Management in Europe* (pp. 207-225). London, UK: Palgrave Macmillan.

Van Thielen, T., Bauwens, R., Audenaert, M., Van Waeyenberg, T., & Decramer, A. (2018). How to foster the well-being of police officers: The role of the employee performance management system. *Evaluation and Program Planning, 70*(1), 90-98.

Van Waeyenberg, T., & Decramer, A. (forthcoming). Line managers' AMO to manage employees' performance: the route to effective and satisfying performance management. *The International Journal of Human Resource Management*, 1-22.

Van Waeyenberg, T., Decramer, A., Desmidt, S., & Audenaert, M. (2017). The relationship between employee performance management and civil servants' turnover intentions: a test of the mediating roles of system satisfaction and affective commitment. *Public Management Review, 19*(6), 747-764.

Verhoeven, J. C. (2010). Academic middle managers and management in university colleges and universities in Belgium. In V. Meek, L. Goedegebuure, R. Santiago, & T. Carvalho (eds.) *The changing dynamics of higher education middle management* (pp. 55-81). Dordrecht, The Netherlands: Springer.

Watermeyer, R., & Lewis, J. (2018). Institutionalizing public engagement through research in UK universities: perceptions, predictions and paradoxes concerning the state of the art. *Studies in Higher Education, 43*(9), 1612-1624.

Welbourne, T. M., Johnson, D. E., & Erez, A. (1998). The role-based performance scale: Validity analysis of a theory-based measure. *Academy of Management Journal*, *41*(5), 540-555.

Wilkesmann, U., & Schmid, C. J. (2012). The impacts of new governance on teaching at German universities. Findings from a national survey. *Higher Education, 63*(1), 33-52.

Wright, P.M. & Nishii, L.H. (2013). Strategic HRM and organizational behaviour: Integrating multiple levels of analysis. In J. Paauwe, D. Guest & P. Wright (eds.) *HRM & performance: achievements & challenges* (pp. 97-110), Chichester, UK: Wiley.

Yang, K., & Hsieh, J. Y. (2007). Managerial effectiveness of government performance measurement: testing a middle-range model. *Public Administration Review, 67*(5), 861-879.

Zacher, H., & Johnson, E. (2015). Leadership and creativity in higher education. *Studies in Higher Education, 40*(7), 1210-1225.

CHAPTER II:

Performance Management Fairness and Burnout: Implications For Organizational Citizenship Behaviors

This chapter is published as Bauwens, R., Audenaert, M., Huisman, J., & Decramer, A. (2019). Performance management fairness and burnout: Implications for organizational citizenship behaviors. *Studies in Higher Education, 44*(3), 584-598.

Abstract

Drawing upon organizational justice theory, we examine how perceptions of performance management fairness affect burnout and organizational citizenship behaviors among academic employees. Data from 532 academic employees from a university in Flanders (Belgium) were analyzed using structural equation modeling. Academic employees experience less burnout when performance management fairness is perceived as high. Performance management distributive and interactional fairness increase organizational citizenship behaviors by reducing burnout and supporting partial mediation. Higher education institutions should carefully design and implement performance management systems with fair outcomes and treatment of employees. Our findings stress the importance of fair performance management systems and offer new insights on how these systems affect employee outcomes.

2.1 Introduction

To increase public sector efficiency and effectiveness, the governments of many countries have engaged in a series of new public management (NPM) reforms. NPM comes in different sizes and shapes (Pollitt, Van Thiel, & Homburg, 2007) against the assumption that public and corporate sector organizations do not (or should not) fundamentally differ. Analyses of developments in higher education systems confirm the trend in other public sectors. For instance, Broucker and De Wit (2015) contend that – despite ambiguities and overlap – four main NPM areas can be distinguished in higher education: market-based reform (privatization, competition); budgetary reform (value for money, budgetary incentives, cost-sharing); management style and techniques (the 'right' to manage); and autonomy, accountability and performance. An important subsequent challenge for higher education institutions has been to adopt performance management systems (Decramer, Smolders, Vanderstraeten, & Christiaens, 2012).

Performance management systems consist of different interrelated performance management practices (Armstrong & Baron, 2008) that serve to outline, oversee and assess the performance of employees in a cyclical process, streamlining employee performance with the overall goals of the organization (Aguinis, 2013). In higher education institutions, performance management systems are implemented by academic employees' leaders within their respective research (and teaching) units (Sousa, de Nijs, & Hendriks, 2010). With research increasingly becoming a dominant goal of higher education institutions, such management practices tend to focus more on tracking and reviewing academic employees' research performance (Cadez, Dimovski, & Zaman Groff, 2015). Recently, it has emerged that performance management systems are prone to unintended effects on employee well-being and behavior. Examples include instigating unethical behavior (e.g., data fabrication), creating a too competitive culture (e.g., through focusing on individual targets) and

harming employee wellbeing through increasing work pressure (Ordóñes, Schweitzer, Galinsky, & Bazerman, 2009). Such unintended effects potentially undermine performance management systems from delivering their promises (Teelken, 2012), such as enhancing the quality and quantity of research (McCormack, Propper, & Smith, 2014).

A notable unintended effect is that performance management systems increase workloads and reduce academic employees' sense of control. Hereby, these systems create additional pressures that can facilitate burnout (Barkhuizen, Rothmann, & Vijver, 2014). Burnout is defined as a psychological and physical response to workplace stress (Maslach & Leiter, 1997), characterized by emotional exhaustion (general tiredness due to excessive physical, cognitive and/or emotional demands) and disengagement from work (emotionally distancing oneself from work and/or work tasks; Demerouti, Bakker, Vardakou, & Kantas, 2003). Academic employees constitute a major risk group in developing burnout, which might have adverse consequences for higher education institutions (Watts & Robertson, 2011). Prior studies found burnout associated with plummeting employee performance, high turnover, low commitment, eroding satisfaction and decreasing innovation (Halbesleben & Buckley, 2004).

Experiencing burnout might lead employees to show less discretionary behaviors, such as organizational citizenship behavior (OCB; Castanheira & Chambel, 2010). OCB is a discretionary behavior that employees engage in beyond their official job obligations. It can be targeted towards colleagues or the organization as a whole (Organ, 1988). In the context of academic work, OCB examples include giving feedback on a colleague's paper or sharing the team´s research on social media. Performance management systems might reduce such discretionary or collective-oriented behaviors, since such systems mostly target individual performances (Zhang, Song, Hackett, & Bycio, 2006). While OCB is associated with higher job satisfaction, increased job performance and

lower turnover intentions, this topic has thus far received little attention in studies of higher education institutions (Teh, Boerhannoeddin, & Ismail, 2012).

Studies that examine performance management practices in higher education institutions are scarce (McCormack et al., 2014). Few higher education scholars have addressed how or why performance management systems affect academic employees (Kallio & Kallio 2014; Ringelhan, Wollersheim, & Welpe, 2015). Bowen and Ostroff (2004) assert that employees' perceptions of performance management systems strongly influence their attitudes and behaviors. Among others, perceptions can center on the transparency of the performance management system (i.e. performance management system transparency) or the degree to which employees perceive the performance management system is consistently applied (i.e. performance management systems consistency; Bowen & Ostroff, 2004). Performance management systems can be viewed in many ways, but of central importance to employees is the perspective of themselves as 'users', in which fairness and equity are key drivers (Bowen, Gilliland, & Folger, 1999). Therefore, we focus on performance management fairness to understand performance management systems' unintended effects. Performance management fairness - defined as the degree to which performance management systems provide fair outcomes, procedures and treatment - is a decisive factor for employees to accept the performance management system and strongly guides employees' subsequent feelings and actions (Bowen & Ostroff, 2004). The importance of performance management fairness perceptions is further emphasized by organizational justice theory (Greenberg, 1987), which posits that feelings of moral righteousness about organizational measures tend to steer employees' attitudes and behaviors in the workplace. Prior studies confirm the predictive value of performance management fairness (e.g., Decramer, Smolders, & Vanderstraeten, 2013; Dewettinck & Van Dijck, 2013): its presence has been linked to both lower levels of burnout (e.g., Brown & Benson,

2003; Castanheira & Chambel, 2010) and increased levels of organizational citizenship behavior (e.g., Cohen-Charash & Spector 2001; Katou, 2013). In other words, a performance management system high in performance management fairness could be able to reduce some of these unintended effects. With this in mind, we ask, how does performance management fairness relate to burnout and OCB among academic employees? Addressing this question is important to increase our understanding of the potential unintended effects of performance management systems and to grasp how these systems can be designed to benefit both academic employees and their institutions (Decramer et al., 2013; Kallio & Kallio, 2014).

2.2 Theoretical framework

2.2.1 An organizational justice perspective

Higher education institutions may be conceived as 'special' regarding the rather intangible services (i.e. research and teaching) they offer and with respect to features such as professional autonomy. However, in many respects, the employee-organization relationship is not significantly different from other organizations (Brunsson & Sahlin-Andersson, 2000). Contemporary public management literature – using the term organizational hybridity – stresses that the boundaries between the corporate sector and public sector organizations increasingly become blurry (see e.g., Skelcher & Smith, 2015). It is therefore warranted to take a generic organization theory as a point of departure for our analysis. Applying organizational justice theory (Greenberg, 1987) to performance management systems in higher education institutions implies that academic employees' perceptions of performance management fairness center around [1] the outcomes of the performance management system (performance management distributive fairness), [2] its procedures (performance management procedural fairness) or [3] their personal treatment during

the unfolding of the performance management system (performance management interactional fairness; Colquitt, Conlon, Wesson, Porter, & Ng, 2001). *Performance management distributive fairness* is the perception among academic employees that the outcomes of the performance management system reflect their invested efforts. For example, when excellent publications translate into tenure or promotion. *Performance management procedural fairness* refers to academic employees' judgment of the equity and equality of the performance management system's procedures to arrive at its outcomes (Colquitt et al., 2001). For example, when academic employees view that the performance management system benefits certain employees at the expense of others, they may not feel involved in the practices of the system (e.g., setting research targets or priorities) or they may feel the performance management system does not provide sufficient transparency (Farndale, Hope-Hailey, & Kelliher, 2011; Heffernan & Dundon 2016). *Performance management interactional fairness* is the interpersonal dimension of performance management fairness and refers to academic employees' personal treatment by their leader (e.g., head of department, research leader, team leader) during the enactment of performance management systems (Colquitt et al., 2001). Since performance management systems are implemented by academic employees' leaders within their respective units (Sousa et al., 2010), differences in these leaders' personal approaches could as well affect academic employees' perceptions of performance management fairness and their resulting feelings and actions (Heffernan & Dundon, 2016). When academic employees receive a polite treatment and sufficient information from their leader regarding the performance management system, they are inclined to judge the system as fairer (Colquitt et al., 2001). In what follows, we discuss how performance management fairness impacts burnout and OCB and construct our hypotheses.

2.2.2 Performance management fairness and burnout

A growing body of research argues that fairness perceptions constitute a key factor in understanding employee burnout (Kroon, Van de Voorde, & Van Veldhoven, 2009). While fair performance management systems have the potential to reduce burnout (Noblet & Rodwell, 2009), unfair performance management systems tend to create uncertainty, make it more difficult for academic employees to reach their goals and disrupt social relations in the workplace. In such situations, stress, strain and burnout tendencies are likely to emerge (Moliner, Martínez-Tur, Ramos, Peiró, & Cropanzano, 2008).

Academic employees will perceive low *performance management distributive fairness* when they feel they invest more in their work than reflected in the reward allocation of the performance management system (Colquitt et al., 2001). When employees feel their efforts are not recognized, resulting frustrations might build up to culminate in burnout (Maslach & Leiter, 1997; Moliner et al., 2008). For example, a higher education institution's performance management system might attach more publications points for tenure to international peer-reviewed publications at the expense of edited book chapters. In this situation, an academic employee that worked long hours to deliver high-quality book chapters might experience more burnout-related feelings, in response to receiving less recognition. Several studies confirm that experiences of performance management distributive *unfairness* are positively associated with burnout (e.g., Brown & Benson, 2003; Cole, Bernerth, Walter, & Holt, 2010; Howard & Cordes, 2010).

Performance management procedural fairness is the view among academic employees that the performance management system respects moral righteousness throughout all of its procedures (Colquitt et al., 2001). When performance management procedural fairness is absent, academic employees experience less control and more uncertainty, adding to the likelihood of developing

burnout (Rousseau, Salek, Aubé, & Morin, 2009). For example, academic employees might develop burnout as a result of frustrations from not having a voice in the process of the performance management system or ambiguity about certain expectations. Empirical studies in other settings support this notion (e.g., Brown & Benson, 2003; Elovainio, Kivimäki, & Helkama, 2001; Kroon et al., 2009; Moliner et al., 2005; Riolli & Savicki, 2006; Tepper, 2001).

Performance management interactional fairness entails the feeling among academic employees that they are treated fairly during the implementation of the performance management system (Colquitt et al., 2001). In general, employees are very susceptible to unfair leader treatment, such as rudeness or withholding certain important information (Tepper, 2000). Such negative experiences can be disruptive for the social relationship between the academic employees and their leaders, leading to stress, strain, and increased feelings of burnout (Moliner et al,. 2008). Since past research confirms this relationship (e.g., Cole et al., 2010; Moliner et al., 2005; Moliner et al., 2008; Tepper, 2001), we hypothesize that:

Hypothesis 1(a). Performance management distributive fairness reduces feelings of burnout among academic employees.

Hypothesis 1(b). Performance management procedural fairness reduces feelings of burnout among academic employees.

Hypothesis 1(c). Performance management interactional fairness reduces feelings of burnout among academic employees.

2.2.3 Performance management fairness and OCB

An employee's relationship to its organization can be conceptualized as a social exchange relationship (Shore, Coyle-Shapiro, Chen, & Tetrick, 2009), in which both parties expect that their efforts and contributions will be reciprocated by the other party (Gould-Williams & Davies, 2005). When the organization treats its employees fairly, it signals to these employees that they are valued by the organization. Employees in such a situation might respond by engaging in more discretionary altruistic behaviors, such as OCB (Greenberg, 1987; Moorman, 1991). We expect similar exchange relationships to occur in higher education institutions. This means that academic employees will be more inclined to engage in OCB for the team, department or other colleagues when they perceive the performance management system as fair.

In the available literature, the social exchange argument seems to apply to *performance management procedural fairness* and *performance management interactional fairness*. Past research observed that general perceptions of procedural fairness (e.g., Cohen-Charash & Spector, 2001; Karriker & Williams, 2009; Nadiri & Tanova, 2010) and interactional fairness (e.g., Cohen-Charash & Spector, 2001; Karriker & Williams, 2009; Moorman, 1991; Rupp & Cropanzano, 2002) tend to increase employees' OCB. However, the link between *performance management distributive fairness* and OCB requires a more economic exchange explanation, since distributive fairness is concerned with formal rewards (Konovsky & Pugh, 1994). Niehoff and Moorman (1993) argue that social and economic exchanges in the workplace often have overlap. For example, in response to perceived fair rewards, an academic employee can decide to do unpaid overtime to finish an important task. Doing so, an economic exchange is reciprocated with a social exchange response. Hence, perceptions of performance management distributive fairness are expected to affect OCB as well (Niehoff & Moorman, 1993), although empirical support is scarce

(e.g. Konovsky & Pugh, 1994; Moorman, 1991; Nadiri & Tanova, 2010; Williams, Pitre, & Zainuba, 2002). We hypothesize that:

Hypothesis 2(a). Performance management distributive fairness increases OCB among academic employees.

Hypothesis 2(b). Performance management procedural fairness increases OCB among academic employees.

Hypothesis 2(c). Performance management interactional fairness increases OCB among academic employees.

In addition to the above arguments, we argue that performance management fairness can increase or reduce OCB *through* academic employees' feelings of burnout. First, we argue that an unfair performance management system stimulates burnout by creating uncertainty and damaging social relations between the leader and the employee (Moliner et al., 2008). Second, we suggest that performance management fairness can facilitate social exchange relations, which trigger reciprocity by engaging in or refraining from OCB (e.g., Cohen-Charash & Spector, 2001). We also propose that feelings of burnout are likely to affect OCB behaviors (e.g., Van Emmerik, Jawahar, & Stone, 2005; Pettita & Vecchione, 2011), since the experience of burnout in response to performance management unfairness might lead academic employees to save their time and energy, by dropping out of OCB-related behaviors as a coping strategy (Castanheira & Chambel, 2010). Additionally, burnt out employees are less likely to engage in OCB, because they show lower responsiveness to the needs of others in the workplace (Barkhuizen et al., 2014 Cropanzano,

Rupp, & Byrne, 2003). Therefore, we expect a fair performance management system to reduce feelings of burnout, thus increasing the chance that fairness will be reciprocated by academic employees in the form of OCB. We hypothesize that:

Hypothesis 3(a). Performance management distributive fairness increases OCB among academic employees, mediated by reduced feelings of burnout.

Hypothesis 3(b). Performance management procedural fairness increases OCB among academic employees, mediated by reduced feelings of burnout.

Hypothesis 3(c). Performance management interactional fairness increases OCB among academic employees, mediated by reduced feelings of burnout.

2.3 Methods

In what follows, we explain the sample we used to test our hypotheses and provide some background on Flanders (Belgium) and the institution under study. We discuss the measures we utilized to operationalize the concepts and clarify the strategy of our analysis, before moving to the results.

2.3.1 Empirical context

In Flanders (Belgium), the state remains a strong funder and regulator of higher education institutions. Since 2009, research performance indicators have grown in importance for institutional funding allocation (Broucker, De Wit, & Leisyte, 2016). This importance is reflected

at the employee level, in performance management systems' dominant occupation with outlining, overseeing and assessing academic employees' research performance. Differences may exist in how performance management systems take shape in the different Flemish higher education institutions (Decramer et al., 2012). In part, this is due to the Codex Higher Education (Flemish Government, 2013) stipulating that institutions have the obligation to oversee the quality of their research and provide regular assessments (Art. II. 121-122; Art. V. 46), but not prescribing how this process should occur. Performance management systems are also prone to variations within universities due to differences in use and approach between faculties, departments, research teams and the people responsible for the implementation of these systems (Decramer et al., 2012). To control for local institutional variations, this study focuses on the performance system in one Flemish university (41,000 students / 9,000 academic employees). To account for intra-institutional variation, we added controls for gender, function, faculty and time allocation (see Measures).

2.3.2 Data collection

We recruited a sample of junior academic employees from one Flemish university through an online questionnaire (Qualtrics). All employees worked in faculties related to Science, Technology, Engineering and Mathematics (STEM). Out of 4,586 invitations, we received 667 responses of which 532 were valid (response rate: 14.54%). Most respondents were female (56.20%), worked as PhD-researchers on a grant (66.20%) and did research in the medical faculty (23.30%). On average, researchers were 30.95 years old (SD = 6.23), enjoyed a tenure of 3.81 years (SD = 3.18) in their research team and spent approximately 70.13% of their time on research (SD = 23.04) and 18.54% of their time teaching (SD = 14.58). Selective non-response analyses revealed slightly more female researchers (χ^2 (1) =19.903, $p < .001$), postdocs (χ^2 (1) =21.46, $p < .001$) and

researchers from the medical faculty (χ^2 (1) =6.443, p < .010) in our sample compared to the institutional population. This was at the expense of male researchers, PhD grant recipients and researchers from the engineering faculty respectively. These observations reveal the need to control for these variables in our model (Bernerth & Aguinis, 2016).

2.3.3 Measures

All measures were validated in past research, but were adapted to better fit the higher education context. Items were scored on a seven-point scale (1 = strongly disagree; 7 = strongly agree), unless stated otherwise. Full items can be consulted in the Appendix. Cronbach alphas (α) ranged from 80 to .92, above the .70 threshold for reliable scales (Gujarati 2008).

Performance management fairness was measured using the twenty-item scale by Colquitt et al. (2001). Items were scored on a five-point scale (1 = to a very small extent; 5 = to a very large extent). The scale discriminates between *performance management distributive fairness* (α = .92), *performance management procedural fairness* (α = .89) and *performance management interaction fairness* (α = .91). An example item of performance management distributive fairness is 'The outcomes [of planning, monitoring and evaluation] reflect the effort I put into my research'. An example item of performance management procedural fairness is 'The process [of planning, monitoring and evaluation] is free of bias'. An example item of performance management interactional fairness is 'My research leader explains the procedures of planning, monitoring and evaluation thoroughly'.

Burnout was measured using the Oldenburg Burnout Inventory (OLBI, Demerouti et al., 2003). This scale distinguishes two subscales: disengagement from work (α = .83) and emotional

exhaustion (α = .84). An example item of disengagement is 'I find my work a positive challenge' (reversed). An example item of exhaustion is 'When I work, I usually feel energized' (reversed).

OCB was measured using the scale by Moorman and Blakely (1995), which according to the authors better incorporates Organ's (1988) original notion of the concept. The scale includes both items that have the research team as a referent (OCBO) as individual research colleagues (OCBI). An example item is 'I voluntarily help new researchers settle into the job'. (α = .81)

Control variables were added in accordance with a critical review by Bernerth and Aguinis (2016), which demonstrated that gender, job title / function, tenure and workload division are key control variables to account for when studying burnout and OCB. Therefore, we added controls for academic researchers' gender (0 = female, 1 = male), function (1 = bursary, 2 = research assistant, 3 = teaching and research assistant, 4 = postdoc) and tenure (in years). Workload was operationalized following Van der Weijden et al. (2008) as the percentage of their total time academic employees devoted to research and teaching. We did not take into account the wage of the participants, since the institution under study is a public institution with statutory pay scales. Therefore, pay is reflected in differences in function. Finally, we also controlled for the university faculty (1 = medicine, 2 = pharmaceuticals, 3 = veterinary medicine, 4 = applied sciences, 5 = bioscience, 6 = engineering), since approaches to performance management implementation can vary between faculties.

3.1.1 Common source Bias

The present study draws on single-source self-reported data, common source bias (CSB). Utilizing self-reported data use is permitted when studying employee perceptions and beliefs and there are

no other data sources available. In addition, the severity of CSB in the data collection needs to be assessed through statistical solutions and measured variables should not be CSB-sensitive in nature (George & Pandey, 2017). To mitigate CSB in the data collection, we followed authors like Podsakoff et al. (2012) and George and Pandey (2017). Hence, we only included measures with established psychometric properties. We also stressed respondents' anonymity in the questionnaire introduction, as well as the importance of their personal opinions and voluntary participation. Furthermore, we induced a psychological lag time by isolating independent and dependent variables in different questionnaire chapters. After the data collection, a one-factor test (all items on one factor) and a common-latent factor test (all items on their factor, as well as on a common factor) were conducted. Since both of these models demonstrated poor fit to the collected data (see Results), we concluded CSB in the data was not all too substantial.

2.3.4 Data analysis

We tested our hypotheses by structural equation modeling (SEM), a statistical technique that combines factor analysis with regression. This allows us to simultaneously test different hypotheses in one path model and assess mediation effects (Green, 2016; Kline, 2011). We conducted SEM following Anderson and Gerbing's (1988) two-step approach. In the first step, we calculated the measurement model, in which we tested the psychometric properties of the variables in the model by means of confirmatory factor analysis (CFA). In the second step, we constructed the structural model, which displays the relevant relations between the variables (Kline, 2011). To evaluate our models, we took into account the scaled chi-square value with Satorra-Bentler correction ($\chi^2_{S\text{-}B}$). Compared to the traditional chi-square, this correction gives more poignant estimates and does a non-normality correction. Furthermore, we respected indicative values of .90 for the Tucker-Lewis

index (TLI) and comparative fit index (CFI), .06 for the root mean square error of approximation (RMSEA) and .08 for the standardized root mean square residual (SRMR) (Kline, 2011). We performed our analyses in R 3.2.5, complemented with the lavaan package (Rosseel, 2012).

2.4 Results

The means, standard deviations and correlations are reported in Table 2.1. There was no substantial multicollinearity since (1) none of the correlations exceeded |0.800| (Gujarati 2008) and (2) variance inflation factors (VIF) ranged between 1.28 and 2.14, remaining below 10.00 (Kline 2011). Gender negatively correlated with emotional exhaustion. Team tenure showed a negative relationship with performance management procedural fairness and emotional exhaustion. Congruent with the hypotheses, performance management fairness dimensions correlated negatively with burnout subscales and positively with OCB. Emotional exhaustion and disengagement correlated negatively with OCB and positively with each other. In addition, a series of ANOVA's revealed significant discrepancies in disengagement ($F(3, 483) = 4.36$; $p < .01$) and exhaustion ($F(3, 482) = 2.30$; $p < .10$) for function. Teaching assistants and PhD grant recipients report higher levels of disengagement and emotional exhaustion compared to postdocs and research assistants respectively. There were also significant differences in emotional exhaustion for faculty ($F(5, 496) = 4.36$; $p < .01$). Researchers from the medical faculty were generally less emotionally exhausted than researchers from other faculties, with the exception of those in applied sciences, where the difference was not significant.

2.4.1 Measurement model

Using CFA, we tested the hypothesized six-factor measurement model against five alternative models. Table 2.2 displays the fit indices of the models. The hypothesized model consisted of performance management distributive fairness, performance management procedural fairness, performance management interactional fairness, emotional exhaustion, disengagement and OCB. This model shows a less than acceptable fit to the data ($\chi^2_{S\text{-}B}$ = 3186.884; df = 974; CFI = .737; TLI = .721; RMSEA = .081; SRMR = .104). First, we tested for CSB by placing all items on one factor (one-factor model) and adding a common latent to the hypothesized model (common-factor model). Both the one-factor ($\Delta\chi^2_{S\text{-}B}$ = 2491.833; Δdf = 13; p < .001) and common factor model ($\Delta\chi^2_{S\text{-}B}$ = 1231.036; Δdf = 8; p < .001) significantly lowered fit to the data, suggesting that CSB is not problematic in our sample. Second, we continued model specification. Inspection of the fit indices reveals that a seven-factor model (i.e. similar to the hypothesized model but with OCB as a second order of OCBO and OCBI) yields a significantly better fit than the hypothesized model ($\Delta\chi^2_{S\text{-}B}$ = 392.706; Δdf = 6; p < .001). We further adjusted this seven-factor model by removing three items for disengagement and one item for OCB ($\lambda \leq |.400|$). This final model better fits the collected data ($\Delta\chi^2_{S\text{-}B}$ = 1775.537; Δdf = 216; p < .001). Since there were no theoretical argumentations for further model modification, we choose to accept the improved model.

2.4.2 Structural model

Based on the measurement model, we tested four competing structural models. Models and fit indices are shown in Table 2.3. In the hypothesized model, the three performance management fairness dimensions predict OCB mediated by emotional exhaustion and disengagement. At the same time, the three performance management fairness dimensions also have direct relations with

OCB (partial mediation). The fit indices suggests this model shows acceptable fit to the collected data ($\Delta\chi^2_{S\text{-}B}$ = 1777.080; df = 1880; CFI = .902; TLI = .891; RMSEA = .047; SRMR = .059). First, we compared this model with one in which performance management fairness only indirectly affects OCB through the burnout dimensions (*Full mediation model*; $\Delta\chi^2_{S\text{-}B}$ = 23.293; Δdf = 4; p < .001). Second, we investigated a an additional causal path between emotional exhaustion and disengagement (*Double mediation model*; $\Delta\chi^2_{S\text{-}B}$ = 13.187; Δdf = 4; p < .001), as suggested by Leiter (1993). Finally, we tested a model in which the causal order was reversed, leading OCB, disengagement and emotional exhaustion to predict academic employees' perceptions of performance management fairness (*Reverse causality model*; $\Delta\chi^2_{S\text{-}B}$ = 5.070; Δdf = 36; p < .100). None of the alternative models showed significant improvement over the hypothesized model. Therefore, we retained this model for hypothesis testing.

Table 2.1. Means, standard deviations and correlations

		Mean/%	SD	1	2	3	4	5	6	7	8	9	10
1	Gender (1 = male)	56.20	.50										
2	Team tenure (in years)	3.81	3.18	.033									
3	Time spend on teaching (%)	18.54	14.85	.063	-.007								
4	Time spend on research (%)	70.13	23.03	-.101	-.172**	-.643**							
5	Performance management distributive fairness	3.31	.85	.051	-.067	.065	.001						
6	Performance management procedural fairness	3.38	.77	-.011	-.137*	.051	.059	.526**					
7	Performance management interactional fairness	3.61	.88	.082	-.055	.089	-.018	.404**	.616**				
8	Emotional exhaustion	3.83	.98	-.078	-.081	.002	.024	-.321**	-.374**	-.406**			
9	Disengagement	3.65	1.07	-.111*	-.117*	-.026	.096	-.277**	-.324**	-.244**	.597**		
10	Organizational citizenship behavior	5.21	.99	.047	.053	.052	-.135*	.290**	.341**	.396**	-.417**	-.261**	

Note. †p < .10 *p < .050; **p < .010; ***p < .001. Bivariate relations for function and faculty are not shown (ANOVA). Function showed significant effects for disengagement ($F(3, 483) = 4.36$ p < .01) and emotional exhaustion ($F(3, 482) = 2.30$; p < .10). Faculty showed significant effects for emotional exhaustion ($F(5, 496)$; $p < .01$).

Table 2.2. Measurement models and fit indices

	$\chi^2_{S\text{-}B}$	df	AIC	CFI	TLI	RMSEA	SRMR
One-factor model	5678.717	989	47082.115	.399	.371	.117	.122
Common factor model	4417.920	987	45307.437	.579	.558	.100	.107
Three-factor model (PM fairness, burnout, OCB)	2809.434	979	45292.200	.782	.770	.074	.098
Six-factor model (IF, DF, PF, disengagement, exhaustion, OCB)	3186.884	974	43755.260	.737	.721	.081	.104
Seven-factor model (IF, DF, PF, disengagement, exhaustion, OCBO, OCBI)	2794.178	968	43307.475	.784	.769	.074	.095
Adjusted model (OCB 2nd order)	1411.347	760	35777.958	.919	.912	.058	.066

Note. PM = performance management; IF = interactional fairness; DF = distributive fairness; PF = procedural fairness

Table 2.3. Structural models and fit indices

	$\chi^2_{S\text{-}B}$	df	AIC	CFI	TLI	RMSEA	SRMR
Partial mediation model (hypothesized)	1777.080	1180	24888.357	.902	.891	.047	.059
Full mediation model	1800.373	1184	24901.846	.899	.888	.052	.066
Double mediation model (suggestion Leiter, 1993)	1790.267	1184	2481.930	.901	.894	.052	.066
Reverse causality model	1827.150	1216	24863.283	.900	.892	.047	.064

2.4.3 Hypotheses testing

A visual depiction of the final structural model is presented in Figure 2.1. The regression effects are in Table 2.4. The results reveal that male academic employees report less emotional exhaustion (B = -.243, p < .010) and disengagement from work (B = -.152, p < .010). Postdocs experience lower disengagement compared to PhD bursaries (B = -.140, p < .050). Significant effects were also found for faculty, with academic employees in the faculties of pharmaceuticals, bioscience (B = .117, p < .050) and engineering (B = .225, p < .050) sensing greater levels of emotional exhaustion compared to their colleagues in medicine. Furthermore, time spent on teaching (B = .238, p < .050) and time spent on research (B = .220, p < .050) were both found to increase academic employees' perceptions of performance management distributive fairness.

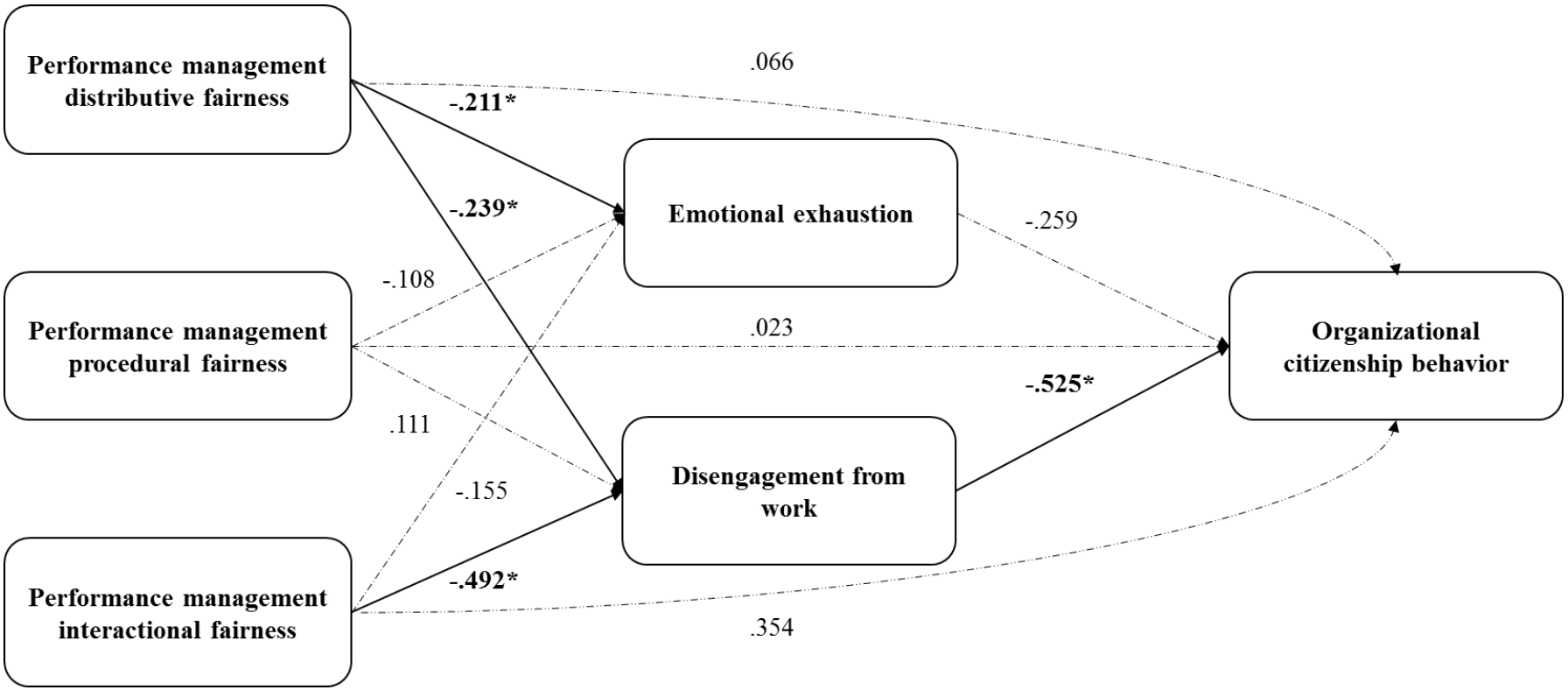
Confirming Hypothesis 1(a), academic employees that experienced more performance management distributive fairness felt lower levels of emotional exhaustion (B = -.211, p < .050) and less disengagement from work (B = -.239, p < .010). In partial support of Hypothesis 1(c), academic employees reported lower disengagement from work when they perceived more performance management interactional fairness (B = -.492, p < .010), but a similar effect with emotional exhaustion could not be observed. Contrary to Hypothesis 2(a, b, c), performance management fairness did not impact OCB directly. While disengagement reduces OCB behaviors among academic employees (B = -.525, p < .010), similar results could not be observed for the emotional exhaustion dimension of burnout.

Table 2.4. Regression results for the hypothesized model

	PM distributive fairness		PM Procedural fairness		PM interactional fairness		Emotional exhaustion		Disengagement from work		OCB	
	B	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Gender (1 = male)	.055	.128	.034	.116	.117	.094	-.243**	.142	-.152*	.143	.011	.139
Function												
PhD bursary (ref.)	-	-	-	-	-	-	-	-	-	-	-	-
Research assistant	.021	.274	-.011	.231	-.107	.188	-.058	.235	-.076	.268	-.066	.356
Teaching and research assistant	-.015	.172	-.036	.147	-.077	.104	-.044	.174	.004	.188	-.023	.216
Post-doc	-.034	.173	-.037	.147	.044	.110	-.041	.213	-.140*	.193	.093	.228
Faculty												
Medicine (ref.)	-	-	-	-	-	-	-	-	-	-	-	-
Pharmaceuticals	-.066	.287	-.113	.226	-.098	.178	.117*	.254	.072	.241	.014	.285
Veterinary medicine	-.058	.232	-.069	.171	-.033	.163	.127	.274	.052	.230	.003	.320
Applied Sciences	-.100	.190	-.087	.148	-.043	.124	.155	.176	.011	.179	.012	.203
Bioscience	-.042	.182	-.128	.147	-.076	.125	.225**	.170	.105	.169	-.037	.202
Engineering	-.056	.198	-.153	.174	-.025	.138	.216*	.211	.159	.231	-.036	.219
Team tenure (yrs.)	-.048	.027	-.124	.016	-.053	.011	-.020	.021	.057	.032	.144	.026
Time spend on teaching (%)	.149	.004	.238*	.004	.118	.003	.002	.004	.105	.006	-.081	.006
Time spend on research (%)	.144	.006	.220*	.005	.184	.004	.008	.006	.018	.005	-.129	.004
Performance management fairness												
PM distributive fairness							-.211*	.103	-.239*	.120	.066	.128
PM procedural fairness							-.108	.239	-.111	.286	.023	.308
PM interactional fairness							-.155	.376	-.492*	.467	.354	.528
Burnout												
Disengagement from work											-.525*	.231
Emotional exhaustion											-.259	.192

Note. PM = performance management. N = 241. † p < .10 *p < .05; **p < .01; ***p < .001. $\chi^2_{S\text{-}B}$ = 1777.080, df = 1180, CFI = .902, TLI = .891, RMSEA = .050, SRMR = .059.

Figure 2.1. Visual depiction of the hypothesized model



Note. The arrows above represent associations between variables, but do not necessarily indicate causal relationships.

Next, we tested the mediation of performance management distributive and performance management interactional fairness through disengagement on OCB, as specified in Hypothesis 3(a) and Hypothesis 3(c) respectively. Both independent variables (performance management distributive fairness, performance management interactional fairness) were correlated with the mediator (disengagement) and the outcome variable (OCB). In the SEM model, the direct effects of the independent variables turned out to be insignificant, indicating full mediation. We assessed the robustness of these mediations using Preacher and Hayes' (2008) bootstrapping method. We estimated indirect effects with 95% confidence interval (*CI*) for 10,000 samples. The standardized indirect effect was .221 for performance management distributive fairness (*CI* = .159, .283; $p <$ .001) and .195 for performance management interactional fairness (*CI* = .179 .211; $p <$ .050). Respective total effects were .463 for performance management distributive fairness ($p <$ .001) and .641 for performance management interactional fairness ($p <$ .001). Both direct and indirect effects were significant in the bootstrapped samples for these two variables, supporting full mediation and partially confirming Hypothesis 3(a) and Hypothesis 3(c).

2.5 Discussion

While higher education institutions have adopted performance management systems to increase their efficiency and effectiveness (Decramer et al., 2012), these systems might in some cases facilitate burnout (Barkhuizen et al., 2014) and reduce academic employees' willingness to engage in OCB (Teh et al. 2012). In response to such unintended effects, we examined how performance management fairness related to burnout and OCB-related behaviors among academic employees, using organizational justice theory (Greenberg, 1987).

2.5.1 Theoretical implications

Our results reveal that academic employees experience less burnout when they perceive high performance management distributive and performance management interactional fairness. Under these circumstances, academic employees engage more frequently in OCB by experiencing less disengagement from work. Such findings lead to suggest that employees' attitudes and behaviors are strongly tied to aspects of performance management fairness that are more salient in their day-to-day working lives, such as rewards and interpersonal treatment as opposed to (more abstract) procedures. We also observe that different aspects of performance management fairness affect burnout dimensions in differential ways. Performance management distributive fairness affects both burnout dimensions (emotional exhaustion and disengagement from work), while performance management interactional fairness only affects disengagement from work (and to a relatively strong degree). This observation is in line with Janssen et al. (2010), arguing that emotional exhaustion is strongly associated with the exchange relationship between employees and their employers. Emotionally exhausted employees are also more likely to ascribe such feelings to the distribution of resources. Hence, perceptions of distributive fairness could be better predictors of emotional exhaustion than perceptions of interactional fairness. However, that performance management distributive fairness emerges as a strong predictor of burnout in our sample runs counter to our initial expectations (cf. Moliner et al., 2008; Moorman, 1991). Potentially, this results from our operationalization of performance management distributive fairness in terms of non-monetary rewards, since performance was not related to pay in the institution under study. However, this might also imply that academic employees in the sample work more individually than in a team, since the former group of academic employees is considered to be more sensitive to performance management distributive fairness than the latter group (Erkutlu, 2011).

Overall, few studies in higher education institutions thus far have addressed the effects of management practices in relation to the institution's internal environment, let alone subjected these effects to empirical scrutiny (McCormarck et al., 2014). By showing how performance management fairness perceptions relate to burnout and OCB, this study demonstrates the value of organizational justice theory (Greenberg, 1987) in understanding employees' reactions to performance management systems in hybrid organizations, such as higher education institutions (Skelcher & Smith, 2015). Organizational justice theory draws attention to the user-perspective of performance management systems (Bowen et al., 1999), strengthening the idea that employees' personal perceptions and experiences with performance management systems guide attitudes and behaviors more strongly than the system's managerial design (Jacobsen & Andersen, 2014; Selden & Sowa, 2011). Nevertheless, the theoretical lens of organizational justice theory does not suffice to explain the full complexity of the unintended effects of performance management systems in higher education institutions. Therefore, other perceptions of performance management system conditions require to be addressed in the context of higher education institutions and examined in relation to different employee outcomes.

2.5.2 Practical implications

Our findings have practical implications for those who bear the responsibility for performance management systems in higher education. Performance management fairness should be considered early on in the process of designing and implementing performance management systems. Doing so, allows higher education institutions to diagnose whether unintended effects are due to academic employees' responses to *structural problems* (performance management distributive fairness), *procedural problems* (performance management procedural fairness) or *relational problems*

(performance management interactional fairness). Performance management systems can have unintended effects on academic employees (Teelken, 2012), but when these systems are designed (distributive and procedural fairness), implemented (procedural and interactional fairness) and perceived as fair, they have the potential to reduce burnout and indirectly stimulate employee discretionary behavior (Aguinis, 2013). The mediation effect of performance management interactional fairness through disengagement on OCB further stresses the importance of leaders as key intermediaries in performance management implementation (Sousa et al., 2010). By respecting fair treatment (e.g., refraining from rudeness or inappropriate remarks, providing sufficient information on the performance management system), leaders can reduce disengagement and increase OCB within the department or team. In certain circumstances, fair treatment by the leader can even buffer the negative effects of a performance management system lower in performance management distributive fairness and performance management procedural fairness, although our data does not allow for such extrapolation.

2.5.3 Limitations

This study has limitations. First, we used cross-sectional data, while performance management systems in a higher education environment typically unfolds over longer periods of time (Decramer et al., 2013) an academic employees' perceptions of fairness can take some time to develop (Ambrose & Cropanzano, 2003). Future research could benefit from longitudinal research to gain a temporal understanding of performance management system dynamics. Second, data were gathered from one Flemish university. While this poses potential limits to the external validity of our findings, our case concerned a comprehensive research university, representative for the country. We invite subsequent studies to examine performance management fairness in other

geographical and policy contexts. Finally, fairness perceptions are not the only performance management success conditions to affect academic employees' attitudes and behaviors (Bowen & Ostroff, 2004). Thus far, performance management consistency and performance management fairness have been addressed in higher education environments (Decramer et al., 2013), but other kinds of perceptions remain unexplored. In addition, recent research suggests that performance management fairness is only effective when consistently applied over time (Matta et al., 2017), in other words, when employees also perceive performance management consistency. Therefore, higher education institutions should pay attention to the coexistence of different performance management perceptions, though this necessarily implies more research in this area.

2.6 Conclusion

This study examined how performance management systems relate to burnout OCB among academic employees. Our findings support the importance of fair performance management systems in higher education institutions. Our analysis shows that performance management fairness, more specifically performance management distributive and performance management interactional fairness do not impact OCB directly. Rather, we observe these perceptions affect OCB indirectly through the disengagement dimension of burnout. Research leaders and department heads responsible for implementing performance systems should focus on maintaining fair outcomes, treating academic employees fairly and providing them with adequate information. For example, by involving academic employees in the design and implementation of such systems. Overall, our observations stress the importance of employee perceptions of performance management fairness, contributing to our understanding of the complex dynamics of performance management systems in higher education institutions.

2.7 References

Aguinis, H. (2013). *Performance management.* Upper Saddle River, NJ: Pearson Prentice Hall.

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*(3), 411-423.

Ambrose, M. L., & Cropanzano, R. (2003). A longitudinal analysis of organizational fairness: An examination of reactions to tenure and promotion decisions. *Journal of Applied Psychology, 88*(2), 266-275.

Armstrong, M., & Baron, A. (2008). *Managing performance: Performance management in action.* London: CIPD.

Barkhuizen, N., Rothmann, S., & Van De Vijver, F. J. (2014). Burnout and work engagement of academics in higher education institutions: Effects of dispositional optimism. *Stress and Health, 30*(4), 322-332.

Bernerth, J. B., & Aguinis, H. (2016). A critical review and best-practice recommendations for control variable usage. *Personnel Psychology, 69*(1), 229-283.

Bowen, D. E., Gilliland, S. W., & Folger, R. (1999). HRM and service fairness: How being fair with employees spills over to customers. *Organizational Dynamics, 27*(3), 7-23.

Bowen, D. E., & Ostroff, C. (2004). Understanding HRM–firm performance linkages: The role of the "strength" of the HRM system. *Academy of Management Review, 29*(2), 203-221.

Broucker, B., &De Wit, K. (2015). "New public management in higher education." In J. Huisman, H. de Boer, D. Dill, and M. Souto-Otero *The Palgrave Handbook of Higher Education Policy and Governance* (pp. 57-75). Basingstoke, U.K.: Palgrave Macmillan.

Broucker, B., De Wit, K., & Leisyte, L. (2016). Higher education reform. In R. Pritchard, A. Pausits, & J. Williams (eds.). *Positioning higher education institutions* (pp. 19-40). Rotterdam, The Netherlands: Sense Publishers.

Brown, M., & Benson, J. (2003). Rated to exhaustion? Reactions to performance appraisal processes. *Industrial Relations Journal*, *34*(1), 67-81.

Brunsson, N., & Sahlin-Andersson, K. (2000). Constructing organizations: The example of public sector reform. *Organization studies*, *21*(4), 721-746.

Cadez, S., Dimovski, V., & Zaman Groff, M. (2017). Research, teaching and performance evaluation in academia: the salience of quality. *Studies in Higher Education*, *42*(8), 1455-1473.

Castanheira, F., & Chambel, M. J. (2010). Burnout in salespeople: A three-wave study to examine job characteristics' predictions and consequences for performance. *Economic and Industrial Democracy*, *31*(4), 409-429.

Cohen-Charash, Y., & Spector, P. E. (2001). The role of justice in organizations: A meta-analysis. *Organizational behavior and human decision processes*, *86*(2), 278-321.

Cole, M. S., Bernerth, J. B., Walter, F., & Holt, D. T. (2010). Organizational justice and individuals' withdrawal: Unlocking the influence of emotional exhaustion. *Journal of Management Studies*, *47*(3), 367-39.

Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O., & Ng, K. Y. (2001). Justice at the millennium: a meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology*, *86*(3), 425-455.

Cropanzano, R., Rupp, D. E., & Byrne, Z. S. (2003). The relationship of emotional exhaustion to work attitudes, job performance, and organizational citizenship behaviors. *Journal of Applied Psychology*, *88*(1), 160-169.

Decramer, A., Smolders, C., & Vanderstraeten, A. (2013). Employee performance management culture and system features in higher education: relationship with employee performance management satisfaction. *The International Journal of Human Resource Management*, *24*(2), 352-371.

Decramer, A., Smolders, C., Vanderstraeten, A., & Christiaens, J. (2012). The impact of institutional pressures on employee performance management systems in higher education in the Low Countries. *British Journal of Management*, *23*(S1), S88-S103.

Demerouti, E., Bakker, A. B., Vardakou, I., & Kantas, A. (2003). The convergent validity of two burnout instruments: A multitrait-multimethod analysis. *European Journal of Psychological Assessment*, *19*(1), 12-23.

Dewettinck, K., & van Dijk, H. (2013). Linking Belgian employee performance management system characteristics with performance management system effectiveness: exploring the mediating role of fairness. *The International Journal of Human Resource Management*, *24*(4), 806-825.

Elovainio, M., Kivimäki, M., & Helkama, K. (2001). Organizational justice evaluations, job control, and occupational strain. *Journal of Applied Psychology*, *86*(3), 418-424.

Erkutlu, H. (2011). The moderating role of organizational culture in the relationship between organizational justice and organizational citizenship behaviors. *Leadership & Organization Development Journal*, *32*(6), 532-554.

Farndale, E., Hope-Hailey, V., & Kelliher, C. (2011). High commitment performance management: The roles of justice and trust. *Personnel Review*, *40*(1), 5-23.

Flemish Government. (2013). *Besluit van de Vlaamse regering tot codificatie van de decretale bepalingen betreffende het hoger onderwijs*. [decree of the Flemish government codifying

decreed provisions concerning higher education]. Retrieved from: http://data-onderwijs.vlaanderen.be/edulex/document.aspx?docid=14650.

George, B., & Pandey, S. K. (2017). We know the Yin—But where is the Yang? Toward a balanced approach on common source bias in public administration scholarship. *Review of Public Personnel Administration, 37*(2), 245-27.

Green, T. (2016). A methodological review of structural equation modelling in higher education research. *Studies in Higher Education, 41*(12), 2125-2155.

Greenberg, J. (1987). A taxonomy of organizational justice theories. *Academy of Management Review, 12*(1), 9-22.

Gould-Williams, J., & Davies, F. (2005). Using social exchange theory to predict the effects of HRM practice on employee outcomes: An analysis of public sector workers. *Public Management Review, 7*(1), 1-24.

Gujarati, D. (2008). *Basic Econometrics*. Singapore: McGraw–Hill.

Halbesleben, J. R., & Buckley, M. R. (2004). Burnout in organizational life. *Journal of Management, 30*(6), 859-879.

Heffernan, M., & Dundon, T. (2016). Cross-level effects of high-performance work systems (HPWS) and employee well-being: the mediating effect of organisational justice. *Human Resource Management Journal, 26*(2), 211-231.

Howard, L. W., & Cordes, C. L. (2010). Flight from unfairness: Effects of perceived injustice on emotional exhaustion and employee withdrawal. *Journal of Business and Psychology, 25*(3), 409-428.

Jacobsen, C. B., & Andersen, L. B. (2014). Performance management for academic researchers: How publication command systems affect individual behavior. *Review of Public Personnel Administration, 34*(2), 84-107.

Janssen, O., Lam, C. K., & Huang, X. (2010). Emotional exhaustion and job performance: The moderating roles of distributive justice and positive affect. *Journal of Organizational Behavior, 31*(6), 787-809.

Kallio, K. M., & Kallio, T. J. (2014). Management-by-results and performance measurement in universities–implications for work motivation. *Studies in Higher Education, 39*(4), 574-589.

Karriker, J. H., & Williams, M. L. (2009). Organizational justice and organizational citizenship behavior: A mediated multifoci model. *Journal of Management, 35*(1), 112-135.

Katou, A. A. (2013). Justice, trust and employee reactions: an empirical examination of the HRM system. *Management Research Review, 36*(7), 674-699.

Kline R. (2011). *Principles and practice of structural equation modeling*. New York, NY: Guilford Press.

Konovsky, M. A., & Pugh, S. D. (1994). Citizenship behavior and social exchange. *Academy of Management Journal, 37*(3), 656-669.

Kroon, B., Van de Voorde, K., & Van Veldhoven, M. J. P. M. (2009). Cross-level effects of high-performance work practices on burnout: Two counteracting mediating mechanisms compared. *Personnel Review, 38*(5), 509-525.

Leiter, M. (1993). Burnout as a developmental process: Consideration of models. In W. Schaufeli, C. Maslach &T. Marek *Professional burnout: Recent developments in theory and research* (pp. 237-250). Washington, DC: Taylor & Francis.

Maslach, C. & Leiter, M. (1997). *The truth about burnout*. San Francisco, CA: Jossey-Bass.

Matta, F. K., Scott, B. A., Colquitt, J. A., Koopman, J., & Passantino, L. G. (2017). Is consistently unfair better than sporadically fair? An investigation of justice variability and stress. *Academy of Management Journal, 60*(2), 743-77.

McCormack, J., Propper, C., & Smith, S. (2014). Herding cats? Management and university performance. *The Economic Journal, 124*(578), F534-F564.

Moliner, C., Martínez-Tur, V., Peiró, J. M., Ramos, J., & Cropanzano, R. (2005). Relationships between organizational justice and burnout at the work-unit level. *International Journal of Stress Management*, *12*(2), 99-116.

Moliner, C., Martinez-Tur, V., Ramos, J., Peiró, J. M., & Cropanzano, R. (2008). Organizational justice and extrarole customer service: The mediating role of well-being at work. *European Journal of Work and Organizational Psychology, 17*(3), 327-348.

Moorman, R. H. (1991). Relationship between organizational justice and organizational citizenship behaviors: Do fairness perceptions influence employee citizenship? *Journal of Applied Psychology, 76*(6), 845.

Moorman, R. H., & Blakely, G. L. (1995). Individualism-collectivism as an individual difference predictor of organizational citizenship behavior. *Journal of Organizational Behavior, 16*(2), 127-142.

Nadiri, H., & Tanova, C. (2010). An investigation of the role of justice in turnover intentions, job satisfaction, and organizational citizenship behavior in hospitality industry. *International Journal of Hospitality Management, 29*(1), 33-41.

Niehoff, B. P., & Moorman, R. H. (1993). Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behavior. *Academy of Management Journal*, *36*(3), 527-556.

Noblet, A. J., & Rodwell, J. J. (2009). Identifying the predictors of employee health and satisfaction in an NPM environment: Testing a comprehensive and non-linear demand-control-support model. *Public Management Review, 11*(5), 663-683.

Ordóñez, L. D., Schweitzer, M. E., Galinsky, A. D., & Bazerman, M. H. (2009). Goals gone wild: The systematic side effects of overprescribing goal setting. *Academy of Management Perspectives, 23*(1), 6-16.

Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington Books.

Petitta, L., & Vecchione, M. (2011). Job burnout, absenteeism, and extra role behaviors. *Journal of Workplace Behavioral Health, 26*(2), 97-121.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology, 63*(1), 539-569.

Pollitt, C., van Thiel, S., & Homburg, V. (2007). *New public management in Europe: Adaptations and alternatives*. Basingstoke, U.K.: Palgrave MacMillan.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*(3), 879-891.

Ringelhan, S., Wollersheim, J., & Welpe, I. (2015). Performance management and incentive systems in research organizations: Effects, limits and opportunities. In I. Welpe, J. Wollersheim, S. Ringelhan, & M. Osterloh (eds.). *Incentives and performance – Governance of research organizations* (pp. 87–103). Heidelberg, Germany: Springer.

Riolli, L., & Savicki, V. (2006). Impact of fairness, leadership, and coping on strain, burnout, and turnover in organizational change. *International Journal of Stress Management, 13*(3), 351-377.

Rosseel, Y. (2012). Lavaan: An R package for structural equation modeling and more. *Journal of Statistical Software, 48*(2), 1-36.

Rousseau, V., Salek, S., Aubé, C., & Morin, E. M. (2009). Distributive justice, procedural justice, and psychological distress: The moderating effect of coworker support and work autonomy. *Journal of Occupational Health Psychology*, *14*(3), 305-317.

Rupp, D. E., & Cropanzano, R. (2002). The mediating effects of social exchange relationships in predicting workplace outcomes from multifoci organizational justice. *Organizational Behavior and Human Decision Processes*, *89*(1), 925-946.

Selden, S., & Sowa, J. E. (2011). Performance management and appraisal in human service organizations: Management and staff perspectives. *Public Personnel Management*, *40*(3), 251-264.

Shore, L. M., Coyle-Shapiro, J. A., Chen, X. P., & Tetrick, L. E. (2009). Social exchange in work settings: Content, process, and mixed models. *Management and Organization Review*, *5*(3), 289-302.

Skelcher, C., & Smith, S. R. (2015). Theorizing hybridity: Institutional logics, complex organizations, and actor identities: The case of nonprofits. *Public Administration*, *93*(2), 433-448.

Sousa, C. A., de Nijs, W. F., & Hendriks, P. H. (2010). Secrets of the beehive: Performance management in university research organizations. *Human Relations*, *63*(9), 1439-146.

Teh, C. J., Boerhannoeddin, A., & Ismail, A. (2012). Organizational culture and performance appraisal process: Effect on organizational citizenship behavior. *Asian Business & Management*, *11*(4), 471-484.

Teelken, C. (2012). Compliance or pragmatism: How do academics deal with managerialism in higher education? A comparative study in three countries. *Studies in Higher Education*, *37*(3), 271-29.

Tepper, B. J. (2000). Consequences of abusive supervision. *Academy of Management Journal*, *43*(2), 178-19.

Tepper, B. J. (2001). Health consequences of organizational injustice: Tests of main and interactive effects. *Organizational Behavior and Human Decision Processes*, *86*(2), 197-215.

Van der Weijden, I., de Gilder, D., Groenewegen, P., & Klasen, E. (2008). Implications of managerial control on performance of Dutch academic (bio) medical and health research groups. *Research Policy*, *37*(9), 1616-1629.

Emmerik, I. H. V., Jawahar, I. M., & Stone, T. H. (2005). Associations among altruism, burnout dimensions, and organizational citizenship behaviour. *Work & Stress*, *19*(1), 93-1.

Watts, J., & Robertson, N. (2011). Burnout in university teaching staff: a systematic literature review. *Educational Research*, *53*(1), 33-5.

Williams, S., Pitre, R., & Zainuba, M. (2002). Justice and organizational citizenship behavior intentions: Fair rewards versus fair treatment. *The Journal of Social Psychology*, *142*(1), 33-44.

Zhang, K., Song, L. J., Hackett, R. D., & Bycio, P. (2006). Cultural boundary of expectancy theory-based performance management: A commentary on DeNisi and Pritchard's performance improvement model. *Management and Organization Review*, *2*(2), 279-294.

CHAPTER III:

Fostering Societal Impact and Job Satisfaction: The Role of Performance Management and Leader-Member Exchange

This chapter is published as Bauwens, R., Audenaert, M., & Decramer, A. (2018). Fostering societal impact and job satisfaction: The role of performance management and leader-member exchange. *Public Management Review*.

Abstract

Performance management systems can alienate employees from experiencing societal impact. This is problematic since societal impact influences employees' job satisfaction. To avoid such unintended effects, we investigate two conditions under which performance management systems could instead benefit the societal impact and job satisfaction of employees: consistency and leader-member exchange. Results show consistent performance management systems foster job satisfaction, mediated by societal impact and moderated by leader-member exchange. Public organizations should streamline expectations communicated through performance management systems, while constructive leader relationships could reinforce this process. By examining the conditions under which performance management systems can avoid unintended effects on employees, we add to the debate on performance management effectiveness.

3.1 Introduction

Fast-tracked by NPM, public organizations have adopted performance management systems to measure and progress employees' performances through systematic goal-setting, combined with regular feedback and evaluation of their employees' efforts (Brown, 2004; Van Dooren, Bouckaert, & Halligan, 2015). While performance management systems target efficient and effective organizations, they can also result in unintended effects on employees (Diefenbach 2009; Melo, Sarrico, & Radnor, 2010). In particular, performance management systems' focus on efficiency and effectiveness has been suspected of alienating public employees from the societal meaning and relevance of their job (Oh & Lewis, 2009; Tummers, Bekkers, & Steijn, 2009; 2012). This is problematic, as societal impact, defined as the extent to which employees sense opportunities to benefit society and societal problems in their job, constitutes a central part of public employees' well-being (Steijn & Van der Voet, forthcoming; Tummers et al., 2009; Van Loon, Vandenabeele, & Leisink, 2015). Especially in public service environments, societal impact is considered tied to other important aspects of public employees' well-being, like their job satisfaction (Grant, 2007; Taylor & Westover, 2011). Hence, not experiencing societal impact could have its consequences: job characteristics theory (Morgeson & Humphrey, 2006) suggests that when public employees perceive low societal impact in their job, their job satisfaction could suffer in response (Pick & Teo, 2017).

Despite such observations, traditional public administration scholarship in this area has focused on whether performance management systems increase efficiency and productivity (Diefenbach, 2009; Favero, Meier, & O'Toole, 2016). While performance management systems could entail advantages for efficiency and productivity measures, less attention has focused on how performance management systems affect public employees, which could result in unintended

effects on employees' attitudes and well-being (Kerpershoek, Groenleer, & de Bruijn, 2016; Noblet & Rodwell, 2009). Knowledge on how to prevent performance management systems from having such unintended well-being effects is necessary, as public organizations require a healthy workforce to deliver public service in efficient and effective ways (Kalgin et al., 2018).

Past research proposes that the unintended well-being effects of performance management systems could be tempered when attention is devoted to (1) how performance management systems are implemented (Franco-Santos & Doherty, 2017; Selden & Sowa, 2011) and (2) how leaders that are in charge of their behave during this process (Butterfield, Edwards, & Woodall, 2004; Campbell, Lee, & Im, 2016). In public organizations, the combination of performance management implementation and leader behavior is referred to as people management (Knies &Leisink, 2018). People management is important to employees' well-being for at least two reasons.

A first reason is that employees' well-being is tied to how they perceive performance management systems are implemented in their organization or organizational unit (Bauwens, Audenaert, Huisman, & Decramer, 2019; Jacobsen & Andersen, 2014). Especially in public organizations, scholars suggest that attention should be paid to the *consistency* with which performance management systems are communicated and applied to avoid that they embargo employees' well-being (Audenaert, Decramer, George, Verschuere, & Van Waeyenberg, 2019; Van Thielen, Bauwens, Audenaert, Van Waeyenberg, & Decramer, 2018; Van Waeyenberg, Decramer, Desmidt, & Audenaert, 2017). Recurrently, public employees need to comply with quantitative performance targets (e.g., number of clients serviced; time devoted to each client). However, public employees also provide societal services that are more difficult to quantify or not followed up and evaluated to the same extent (Pollitt, 2013; Van der Wal, De Graaf, & Lawton, 2011). Such complex demands typically create inconsistent goals and expectations that cause frustration or

confusion and compromise employees' well-being (Jung, 2014). When performance management systems signal very different, or even inconsistent goals and expectations to employees, this could undermine employees' perceptions of their societal impact (Tummers et al., 2009) and ultimately their job satisfaction (Fletcher & Williams, 1996; Jung, 2014). Therefore, signaling theory (Spence, 1978) suggests that when organizations communicate and maintain the same goals and expectations throughout goal-setting, feedback and evaluation of their employees' efforts (i.e. performance management consistency), these employees feel they are better informed and feel more respected and in control. This lowers the demanding effects of having to deal with inconsistent goals and expectations (Biron, Farndale, & Paauwe, 2011).

A second reason is that public organizations have decentralized several key administrative and human resource management-tasks to leaders in the lower segments of the organization. This implies that those leaders can alter how the implementation of performance management systems affects employees (Butterfield et al., 2004; Moynihan, Pandey, & Wright, 2012). Hence leader behavior "may be an important factor in determining whether public organizations can reap the benefits of performance management [systems]" (Campbell et al., 2016, p. 795). Recent studies underscore leader-member exchange (LMX) as a way to look at public leader behavior (e.g., Tummers & Knies, 2013; Vigoda-Gadot & Beeri, 2011). LMX posits that leaders have qualitatively different relationships with each of their individual employees, characterized by discrepancies in the social exchange of resources (Graen & Uhl-Bien, 1995; Yeo et al., 2015). The eminence of LMX emerges from observations that these differential relationships typically function as a 'lenses' through which employees interpret performance management systems and other management arrangements in their professional context (Audenaert et al., 2019; Bos-Nehles & Audenaert, forthcoming). Despite scholars asserting that LMX could be a catalyst for how performance

management systems affect employees (Den Hartog, Paauwe, & Boselie, 2004; Varma, Budhwar, & Denisi, 2008), few studies have examined performance management systems and LMX in conjunction, let alone in relation to employees' well-being.

The arguments above illustrate that *how* performance management systems are implemented and *how* leaders behave could be important contingencies for how such systems affect employees' well-being. Nevertheless, current public management literature has seldom empirically combined both aspects of people management to arrive at such a coherent understanding of how performance management systems affect employees (Audenaert et al., 2019; Campbell et al., 2016; Cho & Poister, 2013). Therefore, the present article focuses on the following research questions:

1. What is the association between performance management consistency and employees' well-being (i.e. job satisfaction and perceived societal impact)?
2. What role does perceived societal impact play, as a potential mediator between performance management consistency and employees' job satisfaction?
3. How does leader behavior (i.e. LMX) affect the aforementioned associations?

In answering these questions, our study progresses our understanding of how performance management systems can avoid unintended effects on employees in the public sector and. Hence, this study offers insights on performance management effectiveness in two ways. First, by examining how performance management systems are implemented (i.e. performance management systems consistency) in tandem with how leaders behave during this process (i.e. LMX), as suggested by people management literature (Butterfield et al., 2004; Knies & Leisink, 2018), the study taps into the literature stream arguing that a more holistic understanding of how performance management systems affect employees is necessary (Diefenbach, 2009). Second, the study

considers societal impact as an outcome of performance management systems and therefore responds to Moynihan, Pandey, and Wright's (2012) call to include societal impact in performance management system research as it is (theoretically) deemed important to consider both performance management systems and societal impact as key motivators for employees (Anderson & Stritch, 2015). Moreover, we complement empirical knowledge by focusing on public universities, where well-being concerns over performance management systems are imminent (Bauwens et al., 2019; Franco-Santos & Doherty, 2017; Levecque, Anseel, De Beuckelaer, Van der Heyden, & Gisle, 2017) and societal impact is gaining increasing attention (Watermeyer, 2015; 2016).

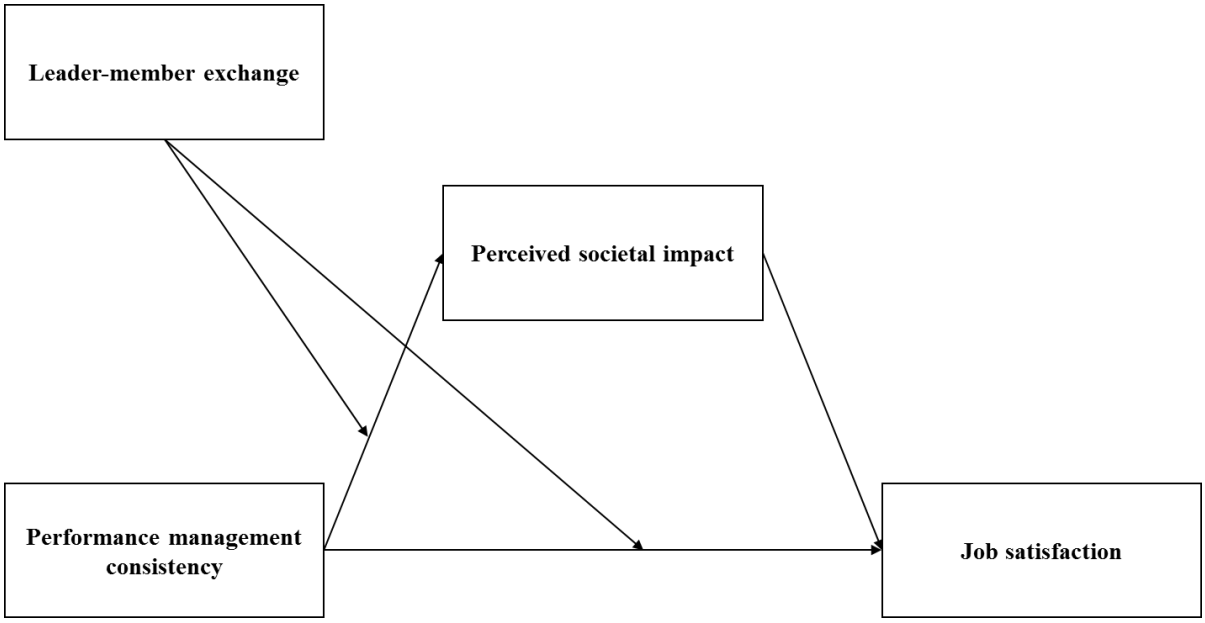
3.2 Theoretical framework

Figure 3.1 shows the model tested in this study. We propose that performance management consistency and LMX jointly affect employees' job satisfaction, mediated by perceptions of societal impact in their job. This model assumes that LMX is a moderator of the first and second stages of the mediated effect of performance management consistency on job satisfaction. Following Edwards and Lambert (2007, p. 4), the combination of these effects implies a *moderated mediation*, more specific a *direct effect and first stage moderation model*, in which the first two paths of a mediating variable are moderated by another.

In explaining this model, we draw on signaling theory (Spence, 1978) and job characteristics theory (Morgeson & Humphrey, 2006), belonging to the broader theoretical perspectives of social information processing and job design respectively. Information processing theories, like signaling theory, are often used to explain the effects of performance management systems (e.g., Biron et al., 2011; Bowen & Ostroff, 2004), while job design theories have typically been adopted in studies on societal impact and job satisfaction (Oldham & Hackman, 2010; Van der Voet & Steijn,

forthcoming). Since both theoretical perspectives focus on employees' connections to other people (i.e. relational mechanisms), previous research shows that both theoretical perspectives can be combined to explain the predictors and outcomes of employees' perceived societal impact (Grant, 2008). In line with such a 'relational approach' (Broadbent, 2010), we also focus on LMX, a relational approach to examine leader behaviours (Caillier, 2017; Fernandez, 2008). In the following sections, we will first discuss the associations between performance management consistency and societal impact and job satisfaction respectively. Subsequently, we expand on the mediating role of perceived social impact and the moderating role of LMX.

FIGURE 3.1. Conceptual model



3.2.1 Signaling effects of performance management consistency

In understanding employees' affective responses to performance management systems, scholars underscore the importance of employees' perceptions (Jacobsen & Andersen, 2014). The underlying logic can be explained by signaling theory (Spence, 1978). Signaling theory considers performance management systems not only as a series of metrics, but also as *communication instruments* that enable organizations to communicate to their employees how they should act and behave. Communication is central to performance management systems and provides employees with signals of the organizational mission and values (Biron et al., 2011). Such signals can be implicit, incomplete or inconsistent. Nevertheless, employees are not passive recipients of the signals of performance management systems. Employees actively interpret such signals to make inferences about expected attitudes and behaviors in the workplace, with important implications their feelings and actions (Bowen & Ostroff, 2004; Jacobsen & Andersen, 2014).

If public organizations wish to transmit their mission and values to employees in a clear and effective manner, it is important that performance management systems send out signals that are *consistent* (Li, Sanders, & Frenkel, 2012; Piening, Baluch, & Ridder, 2014). We recall that performance management systems measure and progress employees' performances through setting goals, providing feedback and evaluating employees on their efforts (Selden & Sowa, 2011). *Performance management consistency* implies that communication across goal-setting, feedback and evaluation is coherent. In other words, that regardless of the time or situation, performance management systems send similar messages that are free from contradictions or mixed signals (Bowen & Ostroff, 2004). This is especially important in public organizations, where employees typically face multiple and complex job demands (Jung, 2014; Van der Wal et al., 2011). Inconsistent rules and unpredictable expectations can create strain and confusion that impact

employees' well-being (Bowen & Ostroff, 2004; Townsend, Wilkinson, Cameron, & Bamber, 2012). For example, if performance management systems fail to follow-up or evaluate employees on criteria which were communicated beforehand (e.g., stressing the societalness of goals, tasks and expectations in goals-setting, but not taking this into account during feedback and evaluations), such inconsistency could result in withdrawal, resentment and ultimately lower employee well-being (Van Waeyenberg et al., 2017).

By contrast, consistent performance management systems manage to reduce such incongruent signals and refocuse employees' attention, with benefits for their well-being (Piening et al., 2014). If performance management systems are consistent (e.g., coherent communication about how and when employees' work can benefit both organizational and societal purposes during goal-setting, feedback and evaluation), employees can more easily make sense of the management-intentions behind the signaled goals, tasks and expectations (e.g., public organizations wishing to fulfil a more prominent role in society). This allows employees to see how their own goals, tasks and expectations fits within the broader organizational mission and values (Li, Sanders, & Frenkel, 2012; et al., 2014; Van Thielen et al., 2018), enabling those employees to better assess the societal meaningfulness of their jobs (Anderson & Stritch, 2015; Bellé, 2013; Wright & Kim, 2004).

Nevertheless, consistent performance management systems are not necessarily supportive for employees. However, recent research by Matta et al. (2017) revealed that being consistent, even in an unsupportive manner, is still more advantageous for employees' well-being than being inconsistent. Indeed, when employees consistently receive clear information, organizational goals and expectations become more predictable to them (i.e. they know what to expect). Such predictably is associated with higher employee well-being (Van Waeyenberg et al., 2017). In what

follows, we discuss how performance management consistency affects two particular aspects of well-being: perceived societal impact and job satisfaction.

Perceived societal impact refers to the extent to which employees' view possibilities to contribute to societal problems and welfare in their job (Van Loon, et al., 2015). The concept bears similarities to Grant's (2007) prosocial impact, but also includes the impact of one's job on society in addition to meaningful impact on others (Leisink & Steijn, 2009; Van Loon, Kjeldsen, Andersen, Vandenabeele, & Leisink, 2018). Perceived societal impact constitutes a useful measure of employees' well-being in public organizations and public service environments (Caillier, 2016; Steijn & Van der Voet, forthcoming). Despite scholars arguing that public organizations have a responsibility in making their employees feel they are contributing to society (Leisink & Steijn, 2009; Perry & Hondeghem, 2008), existent research has mostly focused on employees' motivation for public service; PSM). Whether public employees feel their job actually offers opportunities with societal meaningfulness (i.e. perceived societal impact) remains underresearched (Moynihan et al., 2012; Stritch & Christensen 2014).

To assess the societal impact of their job, employees seek tangible information from their work environment (Grant 2008). As key organizational influencers, performance management systems can provide employees with such information (Moynihan & Pandey, 2010; Pollit, 2013). Performance management systems aim to stimulate employees towards improved performances. Hereby, they ensure goals, tasks and expectations are in line with the mission and values of the broader organization (Van Dooren et al., 2015; Selden & Sowa, 2011). Since public organizations are considered organizations with unique societal missions and values (Knies and Leisink 2018), performance management systems help employees to understand how their goals, tasks and expectations contribute to the societal mission and values (Van Dooren et al., 2015; Wright,

Moynihan, & Pandey, 2012). Following signaling theory (Spence, 1978), performance management systems are more successful at fostering such understanding among employees, when the messages they send to employees across goal-setting, feedback and evaluation are consistent with one another (Biron et al., 2011; Bowen & Ostroff, 2004). Consistent communication about the organizational mission, values and goals, as well as how employees' goals, tasks and expectations contribute to them, sends coherent signals to employees about the organizational and societal significance of their own goals, tasks and expectations. This can result in employees finding their job more meaningful (Anderson & Stritch, 2015; Bellé, 2013; Wright & Kim, 2004) and influences those employees in socially constructing their professional identity as public servants (Alvesson & Kärreman, 2007*;* Ehrnrooth & Björkman, 2012).

By contrast, employees' goals, tasks and expectations become ambiguous and unclear if performance management systems are inconsistent and send different messages across goal-setting, feedback and evaluation (Van Waeyenberg et al., 2017). In such situations of goal ambiguity and value conflict, it is much more difficult for employees to develop a coherent understanding about the organizational and societal significance of their goals, tasks and expectations (Tummers & Knies, 2013). Furthermore, such inconsistency is likely to create confusion and skepticism among employees regarding their societal impact (i.e. "we can't change anything, they don't really intend to help society in this or that way"), causing inconsistent performance management systems to alienate employees from 'the real world' (Tummers et al., 2009; 2012).

Therefore, consistent performance management systems increase employees' perceived societal impact, because they consistently connects the *general* mission, values and goals of public organizations (which in public organizations are often societally orientated) with the *concrete* goals

and expectations of employees (Wright et al., 2012), allowing them to see more organizational and societal value in their job (Anderson & Stritch, 2015; Tummers & Knies, 2013).

Hypothesis 1(a). Performance management consistency positively affects employees' perceived societal impact.

Job satisfaction is a feeling that results from employees' interaction with their work environment and is considered to show stronger relations with work and job characteristics than with individual characteristics (Wright & Davis, 2003). Employees' perceptions of performance management systems have been linked to job satisfaction before, but thus far such studies have remained inconclusive (e.g., Fletcher & Williams, 1996; Selden & Sowa, 2011; Yang & Kassekert, 2009). Other scholars point out the conditional nature of this association (Decramer et al., 2015; Franco-Santos & Doherty, 2017). In line with this 'conditional view', we argue that employees are more satisfied in their job when public organizations use performance management systems to clarify to employees how their job fits the broader organizational mission, values and goals (Decramer et al., 2015; Kalgin et al., 2018; Perry & Hondeghem, 2008). Following signaling theory (1978), to achieve such understanding, clear and consistent information is vital (Den Hartog,. Boon, Verburg, & Croon, 2013; Cho & Poister, 2013; Piening et al., 2014). By contrast, when performance management systems are ambivalent and subjected to swift changes, employees become more calculative in their job and are likely to be less satisfied (Teelken, 2015). Similar observations between performance management systems consistency and job satisfaction were made in other public and private organizational settings, such as hotels, restaurants and public hospitals (e.g., Den Hartog et al., 2013; Li et al., 2012; Piening et al., 2014). Employees are more satisfied in their job

when they receive consistent information from performance management systems, as this creates clarity and predictability of where they need to direct their focus and reduces potential strains of having to deal with incongruent goals, tasks and expectations (Fletcher & Williams, 1996; Jung, 2014; Selden & Sowa, 2011).

Hypothesis 1(b). Performance management consistency positively affects employees' job satisfaction.

3.2.2 Perceived societal impact as a mediator

Distinguishing a degree of societal impact in one's job is argued to have broader well-being benefits (Van Loon et al., 2015). Hence, we propose that employees' perceived societal impact and job satisfaction are related. We base our argument on job characteristics theory, which was developed by Hackman and Oldham (1976) but enjoys more current attention in its re-theorized form by Morgeson and Humphrey (2006). This re-theorized form devotes more attention to the social and societal aspects of work (Oldham & Hackman, 2010). Job characteristics theory states that employees' perceptions of their job characteristics (e.g., significance of expected tasks, contact with societal beneficiaries) result in psychological states (e.g., experienced impact and/or meaningfulness) that influence work-related outcomes among those employees (e.g., job satisfaction, job performance). The theory leads to suggest that when employees perceive their tasks as significant (e.g., to society of societal beneficiaries), they will derive a sense of societal impact from their work, that is likely to boost their job satisfaction (Oldham & Hackman, 2010; Stritch & Christensen, 2014; Wright & Davis, 2003). By contrast, if employees do not feel that

their job offers sufficient opportunities to contribute to society, frustration and dissatisfaction may ensue (Grant, 2007; Taylor & Westover, 2011; Van Loon et al., 2015). We argue that this is especially true for public employees, for which societal impact is an important pillar of their professional identity (Leisink & Steijn, 2009; Perry & Hondeghem, 2008). This is further endorsed in other studies, suggesting a significant relationship between the perceived societal impact of employees' job and their job satisfaction (Breaugh, Ritz, & Alfes, 2018; Steijn & Van der Voet, forthcoming; Van Loon et al., 2015).

Since (1) consistent performance management systems allow employees to better understand the organizational and societal meaningfulness of their job (Anderson & Stritch, 2015; Bellé, 2013; Wright & Kim, 2004), as stated in Hypothesis 1(a), and (2) perceptions of societal impact are beneficial for employees' job satisfaction (Steijn & Van der Voet, forthcoming), we argue that perceived societal impact mediates between employees' perceptions of performance management consistency and their job satisfaction. We expect this relationship to be partial, as we also hypothesize a direct relationship of performance management consistency on job satisfaction, as proposed in Hypothesis 1(b).

> **Hypothesis 2.** Perceived societal impact partially mediates the relationship between performance management consistency and employees' job satisfaction.

3.2.3 LMX as moderator

LMX has emerged as an influential approach to study leader behavior in public organizations (Crosby & Bryson, 2018; Tummers & Knies, 2013; Van Wart, 2014). LMX posits that leaders have

qualitatively different relationships with each of their individual employees (Graen & Uhl-Bien, 1995; Yeo et al., 2015), characterized by discrepancies in the social exchange of resources. These exchanged resources can be very broad, ranging from information and feedback to unique participation opportunities in impactful projects (Tummers & Knies, 2013). High-quality LMX relationships are characterized by a strong exchange of such resources, resulting in effective working relationships that are high in trust, respect and job-related communication. In low-quality LMX relationships, such exchanges are reduced to economic exchanges of work for payment (Harris, Wheeler, & Kacmar, 2009; Yeo et al., 2015).

While direct effects of LMX on employees' well-being are well-established (Fernandez, 2008; Yeo et al., 2015), scholars suggest that LMX can also moderate how performance management consistency affects employees (Den Hartog, et al., 2004; Varma et al., 2008). Such moderating effects originate from the idea that LMX is about more than exchanging resources, but that the quality of the relationships that employees maintain vis-à-vis their leaders functions as 'lens' through which employees evaluate performance management systems and other management practices (Bos-Nehles & Audenaert, forthcoming). Nevertheless these assertions, few scholars have put them to empirical scrutiny (Audenaert et al., 2019; Rosen, Harris, and Kacmar 2011). We argue that LMX reinforces the effects of performance management consistency in our model in two ways.

First, a constructive leader-employee relationship could fulfil a clarifying role in performance management systems, by strengthening existing messages (Audenaert et al., 2019; Cho & Poister, 2013; Rosen et al., 2011) or providing employees with additional information when communication on the organizational mission and values is inconsistent or lacking (Wright et al., 2012; Tummers & Knies, 2013). In constructive leader-employee relationships, employees are

likely to receive more valuable resources (e.g., challenging opportunities, unique information) that aid them in assessing the societal meaningfulness and impact of their job (Caillier, 2017; Grant, 2012). For example, in a high-quality LMX relationship, a leader can bring employees in contact with his/her professional network or with people that could benefit from employees' work (Tummers & Knies, 2013). In these ways, leaders can highlight or add societal impact to employees' goals and expectations. Hence, by further elucidating to employees how the societal mission and values of the organization are linked to their goals and expectations (Perry & Hondeghem 2008; Wright et al., 2012), constructive leaders can improve the consistency of performance management systems. Therefore, we argue that having a high-quality LMX relationship strengthens the effect of performance management consistency on employees' perceived societal impact.

Hypothesis 3(a). LMX positively moderates between performance management consistency and societal impact.

Second, in constructive leader-employee relationships, leaders not only fulfil a clarifying role in performance management systems (Audenaert et al., 2019), but are also more attentive to employees' needs to comply with the organizational mission, values and goals, and their specific goals, tasks and expectations (den Hartog et al., 2013). Under these conditions, employees could experience performance management systems as more supporting and feel much more valued and respected (Audenaert, Vanderstraeten, & Buyens, 2017; Caillier, 2017). In turn, this might result in higher job satisfaction levels (Fletcher & Williams, 1996; Yang & Kassekert, 2009).

Hypothesis 3(b). LMX positively moderates between performance management consistency and job satisfaction.

In the previous sections, we used job characteristics theory (Morgeson & Humphrey, 2006) to propose that consistent performance management systems increase employees' societal impact perceptions, leading to improved job satisfaction (Hypothesis 2). If, based on signaling theory (Spence, 1978), we assume that the association between performance management consistency and perceived societal impact is also stronger for employees in a high-quality LMX relationship (Hypothesis 3(a)), it is also possible that the mediation of perceived societal impact is positively moderated by LMX, leading to a moderated mediation (Edwards & Lambert, 2007), as shown in Figure 1.

Hypothesis 3(c). LMX positively moderates the mediation of perceived societal impact between performance management consistency and employees' job satisfaction.

3.3 Method

3.3.1 Empirical context

Universities have always stimulated their academic employees' societal impact (Van der Weijden, Verbree, & Van Den Besselaar, 2012), making it an important aspect of their identity (Winter, 2009). However, new is the way in which societal impact is inscribed into a performance management agenda, where utilizing research for activities with broader societal purposes (e.g,

practical seminars, citizen science initiatives, consultancy projects) is becoming increasingly important (Watermeyer, 2015). Such activities offer academic employees with opportunities to interact with parties that can benefit from their work, with implications for how academic employees perceive the societal impact of their job (Taylor & Westover, 2011). While the societal impact narrative increases in importance (Van der Weijden et al., 2012), in practice, performance management systems in higher education institutions remain very much centered around scholarly publications (Decramer, Smolders, Vanderstraeten, & Christiaens, 2012; Melo et al., 2010). This predominant research focus goes at the cost of research serving a broader societal relevance (Watermeyer, 2015). This illustrates that academic employees are regularly confronted with inconsistent goals and expectations (Dietz & Scheel, 2017). Not surprisingly, such observations coincide with mounting concerns over the potential harming effects of performance management systems on academic employees' well-being (Fredman & Doughney, 2012; Franco-Santos & Doherty, 2017), raising calls to further examine leadership and management in this sector (Broadbent, 2010; McCorkmack, Propper, & Smith, 2014). While academic employees' well-being enjoys generous scholarly attention (Levecque et al. 2017), few have made the empirical connection with performance management systems (Bauwens et al., 2019; Franco-Santos & Doherty, 2017).

In this study, we focus on performance management systems, leadership and societal impact in a single institution. In 2014, the institution under study kick-started a strategic plan to create an environment where the societal impact of research is stimulated and encouraged. The plan considers the societal impact of research as something that iteratively emerges during the lifecycle of a research project and should be considered during a broad approach to goal-setting, follow-up and evaluation. In other words, performance management.

3.3.2 Data collection

To minimize contextual effects of institutions (Melo et al., 2010) and scientific disciplines, this study focuses on performance management systems within the STEM faculties (science, technology, engineering and mathematics) of a major public university in Flanders, Belgium (41,000 students / 9000 academic employees). We choose STEM academic employees since the idea of societal impact enjoys a longer history in these research fields (Davies, 2013). For comparability of job characteristics, we limited the analyses to junior academic employees, i.e. pre-docs and post-docs (Dietz & Scheel, 2017). Compared to other highly-educated peers, junior academic employees' risk of facing unintended well-being effects is twice is as high. Management arrangements such as performance management systems have been designated as the culprit (Levecque et al., 2017). In September 2016, an electronic survey (Qualtrics) was sent to 4,586 junior academic employees. We received 532 valid responses. This response is in line with other studies on public higher education (Decramer et al., 2012). On average, participants were female (56.20%), 30.95 years old (SD = 6.23) and employed as PhD researchers on a grant (66.20%). The majority belonged to the medical faculty (23.30%) and looked back on a tenure of 3.81 years (SD = 3.18). Selective non-response analyses revealed slightly more female researchers (χ^2 (1) =19.903, $p < .001$), postdocs (χ^2 (1) =21.46, $p < .001$) and researchers from the medical faculty (χ^2 (1) =6.443, $p < .010$) in our sample compared to the institutional population. This was at the expense of male researchers, PhD grant recipients and researchers from the engineering faculty respectively. These observations reveal the need to control for these variables in our model (Bernerth & Aguinis, 2016).

3.3.3 Measures

Variables were measured on seven-point Likert scales (1 = strongly disagree; 7 = strongly agree). Supporting construct validity, Cronbach alphas (α) ranged from .87 to .94.

Performance management consistency was measured using Bednall et al.'s (2014) six-item scale. A sample item is 'The planning, monitoring and evaluation [of my research] is designed in such a way that desired behaviors are being encouraged' (α = .94).

Perceived societal impact was measured using the four items from Van Loon et al. (2015), based on earlier work by Leisink and Steijn (2009). A sample item is 'Someone with a job like mine contributes to solving societal problems' (α = .91).

Job satisfaction was assessed by the three items from the Michigan organizational assessment questionnaire by Cammann et al. (1983). One item was reversed due to negative wording. A sample item is 'All in all, I am satisfied with my job' (α = .87). This scale is regularly used to measure job satisfaction in public organizations and has previously demonstrated good reliabilities (e.g., Breaugh et al., 2018; DeHart-Davis & Pandey, 2005).

Leader-member exchange was measured using the eight items from Bauer and Green (1996). An example item is 'My research leader recognizes my potential'. (α = .94).

Control variables were added for gender (0 = Male, 1 = Female), which has previously correlated significantly with societal impact and job satisfaction (Van Loon et al. 2015). Following Bernerth and Aguinis (2016), we also controlled for function and tenure in studying management outcomes. Finally, we considered faculty to account for intra-institutional variation in performance management system dynamics.

3.3.4 Common source bias

Our study depends on self-reported data from a single survey, making common source bias (CSB) a liability (Favero & Bullock, 2014). Despite its shortcomings, self-reported data use is warranted when (1) studying individual perceptions and beliefs – which is the core of this study, (2) other data sources are not readily available, (3) potential CSB can be detected through a one-factor test and (4) variables have not previously been identified as CSB-sensitive (George & Pandey, 2017). To avoid CSB in the data collection, we followed earlier recommendations (Lee, Benoit-Bryan, & Johnson, 2012; Podsakoff, MacKenzie, & Podsakoff, 2012) by (i) only including prior-validated measures, (ii) stressing respondents' anonymity, (iii) their personal opinions and voluntary participation and (iv) inducing a psychological lag time by separating independent and dependent variables in different chapters. After the data collection, we conducted a one-factor test (all items on one factor) and a common-latent factor test (all items on their factor, as well as on a common factor). Both models fitted the data significantly worse (see Results), suggesting considerable CSB is absent. Finally, we tested moderating effects, which further reduce the chances of significant CSB (George & Pandey, 2017).

3.3.5 Data analysis

We tested moderated mediation following Edwards and Lambert's (2007) method. First, we examined mediating and moderating in isolation. Second, we combined those effects in a moderated mediation model. Data were analyzed using structural equation modeling (SEM), as previous work (Aguinis, Edwards, & Bradley, 2017; Edwards & Lambert, 2007) underscores the this technique's advantages to test complex mediations and take into account measurement error. SEM typically unfolds over two steps (Kline, 2011). First, the factor structure of the latent variables

in the proposed model is examined through confirmatory factor analysis (CFA), resulting in different measurement models. Second, the different causal paths between the latent variables in the model are examined with SEM, resulting in different structural models. In both steps, we evaluated the model fit of nested models through frequently-reported fit indices (Kline, 2011) such as the comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSA) and standardized root mean square residual (SRMR). We also reported the chi-square value with Satorra-Bentler correction, which gives more stringent estimates of model fit and corrects for potential non-normality (Kline, 2011). To check the robustness of the mediation and moderated mediation, we calculated bootstrapped confidence intervals for the indirect effects (Preacher & Hayes, 2008). We also computed the index of moderated mediation (Hayes, 2015), in which a confidence interval without zero indicates moderated mediation. Analyses were performed in R 3.2.5 with lavaan (Rosseel, 2012).

3.4 Results

Table 3.1 shows the descriptive statistics and correlations. Correlations remained within the limits of |.800|. Values for the variance inflation factors (VIF) remained below 10.00, ranging between 1.13 and 2.06, showing no indications of multicollinearity (Kline, 2011). Tenure showed a negative relationship with performance management consistency and a positive relationship with job satisfaction. Congruent with the hypotheses, performance management consistency correlated positively with societal impact and job satisfaction, while the latter were also related. In addition, a series of ANOVA's revealed significant differences in perceived societal impact for faculty ($F(5, 482) = 2.29$; $p < .05$), with researchers in applied sciences and bioscience generally experiencing more impact. Function displayed no significant differences in the measures scales.

Table 3.1. Means, standard deviations and correlations

		Mean / %	SD	1	2	3	4	5	6
1	Gender (1 = female)	56.20	.50						
2	Tenure (in years)	3.81	3.18	.033					
3	Performance management consistency	3.21	.89	-.054	-.197***				
4	Leader-member exchange (LMX)	4.39	1.36	.120*	-.042	.646***			
5	Perceived societal impact	4.87	1.26	.050	.060	.252***	.194***		
6	Job satisfaction	5.55	1.28	.052	.104*	.470***	.560***	.286***	

Note. †p < .10 *p < .050; **p < .010; ***p < .001. Bivariate relations for function and faculty are not shown (ANOVA). Function showed no significant differences. Faculty showed significant differences in perceived societal impact faculty ($F(5, 482) = 2.29$; $p < .05$).

Table 3.2. Measurement models and fit indices

	$\chi^2_{S\text{-}B}$	df	AIC	CFI	TLI	RMSEA	SRMR
One factor (CSB)	2143.469	189	23650	.602	.558	.165	.188
Common factor (CSB)	687.092	185	21251	.692	.651	.085	.182
Three factors (PM consistency-LMX, perceived societal impact, job satisfaction)	1201.993	186	22375	.803	.778	.133	.077
Three factors-bis (PM consistency, LMX, psychological well-being)	1043.779	186	22161	.837	.816	.121	.097
Four factors (PM consistency, LMX, perceived societal impact, job satisfaction)	431.292	183	21245	.953	.946	.066	.044

Note. CSB = common source bias; PM = performance management; LMX = leader-member exchange

Table 3.3. Structural models and fit indices

	$\chi^2_{S\text{-}B}$	df	AIC	CFI	TLI	RMSEA	SRMR
Directs paths (Y~X+M)	829.659	357	19778	.912	.897	.065	.161
Partial mediation (Y~X+M; M~X)	811.701	355	19759	.915	.900	.064	.156
Full mediation (Y~M; M~X)	818.511	356	19876	.814	.899	.064	.162
First stage moderation (Y~X; M~X+W+X*W)	951.549	375	19798	.892	.873	.071	.178
Direct effect moderation (Y~X+M+W+X*W; M~X)	920.322	376	19758	.895	.877	.070	.170
Combined moderation (Y~X+W+X*W; M~X+W+X*W)	917.296	373	19756	.899	.880	.069	.165
First-stage mediated moderation (Y~X+M; M~X+W+X*W)	951.481	375	19797	.892	.873	.066	.175
Direct effect mediated moderation (Y~X+M+W+X*W; M~X)	920.324	375	19758	.898	.880	.069	.165
Combined mediated moderation model (Y~X+M+W+X*W; M~X+W+X*W)	917.295	373	19756	.899	.880	.069	.162

3.4.1 Factor structure tests

Table 3.2 displays the measurement models' fit indices. Confirming our hypothesized factor structure, a four-factor model (performance management consistency, LMX, perceived societal impact, job satisfaction) fits the data well with CFI and TLI very close to .950, RMSEA near .060 and SRMR approaching .080 (Kline 2015). All items loaded sufficiently on their factors ($\lambda \geq |.500|$) with standardized factor loadings ranging between .717 and .930 and the average variance extracted ranging between .618 and .777. A single-factor model ($\Delta\chi^2_{S\text{-}B} = 1712.177$; $\Delta df = 6$; $p < .001$) or common factor model ($\Delta\chi^2_{S\text{-}B} = 255.800$; $\Delta df = 2$; $p < .001$) fitted the data significantly worse. Furthermore, a three-factor models in which performance management consistency and LMX shared a factor ($\Delta\chi^2_{S\text{-}B} = 770.701$; $\Delta df = 3$; $p < .001$) or perceived societal impact and job satisfaction shared a factor ($\Delta\chi^2_{S\text{-}B} = 612.487$; $\Delta df = 3$; $p < .001$), also showed significant lower fit.

3.4.2 Mediation and moderation tests

Table 3.3 displays the structural models' fit indices. We tested the mediation of perceived societal impact between performance management consistency and job satisfaction, not taking into account LMX (Edwards & Lambert, 2007). In line with the hypotheses, we expect partial mediation, in which performance management consistency has a direct path on job satisfaction and an indirect path through perceived societal impact. This model showed suboptimal fit to the collected data, with all fit indices approaching satisfying values except for the high SRMR. We compared this model with a full mediation model (performance management consistency only having an indirect effect on job satisfaction) and a model with direct effects (no mediation). The results demonstrate a partial mediation model to fit the data significantly better than a full ($\Delta\chi^2_{S\text{-}B} = 6.810$; $\Delta df = 1$; $p < .05$) or a no-mediation model ($\Delta\chi^2_{S\text{-}B} = 17.958$; $\Delta df = 2$; $p < .001$). For robustness, we assessed

indirect and total effects with a 95% confidence interval (*CI*) through a bootstrapping procedure with 10.000 samples. Performance management consistency's unstandardized indirect effect on job satisfaction was .076 (CI = .073–.078, p <.010), total effect was .773 (*CI* = .692 –.910, p <.001). Both the indirect and total effect were significant in the bootstrapped samples, preliminary supporting Hypothesis 1(a,b) and Hypothesis 2.

Third, we tested whether LMX moderated between performance management consistency and perceived societal impact (*first-stage moderation*), as well as job satisfaction (*direct-effect moderation*). Additionally, we examined the coexistence the moderation effects (*combined moderation*). A combined moderation model approaches optimal fit, while a first-stage ($\Delta\chi^2_{S\text{-}B}$ = 34.253; Δdf = 1; p < .05) or direct-effect moderation model ($\Delta\chi^2_{S\text{-}B}$ = 3.026; Δdf = 3; p < .001) fitted significantly worse. LMX has significant moderating effects in both the first-stage moderation model (*B* = .145, p <.010) and direct-effect model (*B* = -.071, p <.050), but in combined moderation, the significant moderation for LMX on the performance management consistency-job satisfaction path disappears (*B* = -.053, p >.100). These observations fully underscore Hypothesis 3(a) and disconfirm Hypothesis 3(b).

3.4.3 Moderated mediation tests

Finally, we examined the simultaneous occurrence of mediations and moderations in a moderated mediation. Our approach was similar to the moderation tests, comparing partial mediation models that include moderation effects of LMX on the links of performance management consistency with perceived societal impact (first-stage moderated mediation) and job satisfaction (direct-effect moderated mediation), as well as their co-existence (combined moderated mediation). Again, the model was close to optimal fit, save for the SMSR. By contrast, the first-stage model performed

significantly worse ($\Delta\chi^2_{S\text{-}B} = 34.186$; $\Delta df = 2$; $p < .001$), while the direct-effect model demonstrated no significant improvement ($\Delta\chi^2_{S\text{-}B} = .001$; $\Delta df = 2$; $p < .100$). Counter to the moderation tests in the previous paragraph, LMX' moderation effect is significant in all the moderated mediation models, including the final combined model: LMX positively moderates the path between performance management consistency and perceived societal impact and negatively moderated the path between performance management consistency and job satisfaction.

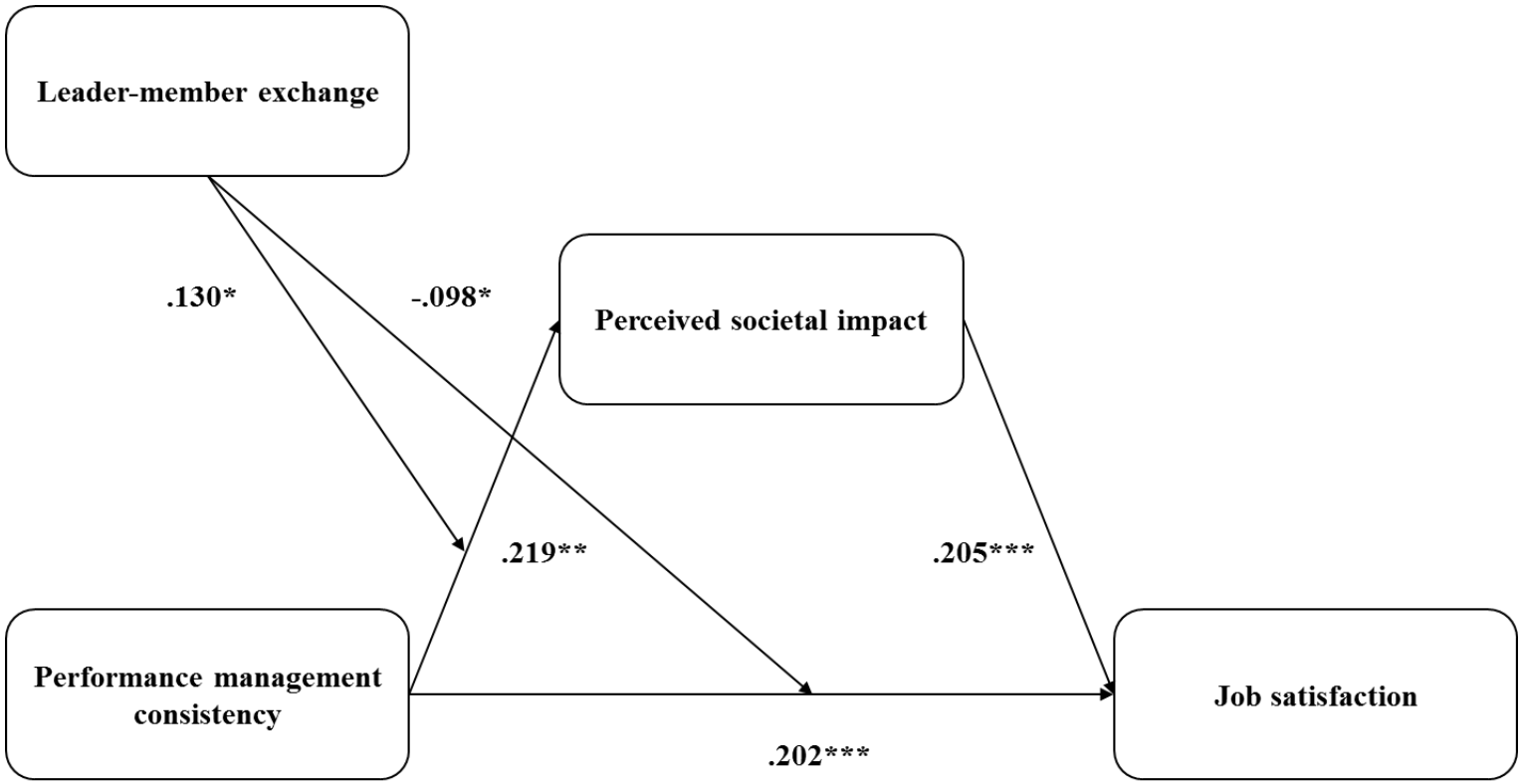
The final model is depicted in Figure 3.2, with its full effects displayed in Table 3.4. Tenure had a negative link with performance management consistency ($B = -.211$, $p < .001$). LMX was lower for female researchers ($B = -.317$, $p < .050$). Perceived societal impact was lower for assistants that combined teaching with research duties ($B = -.111$, $p < .050$) and for researchers in veterinary medicine ($B = -.064$, $p < .050$), as compared to PhD grant recipients and medicine researchers respectively. Job satisfaction was higher for assistants that combined teaching with research duties ($B = .107$, $p < .050$), as well as for postdocs ($B = .136$, $p < .010$). Besides its interaction effects, LMX also had direct positive influences on both perceived societal impact ($B = .219$, $p < .01$) and job satisfaction ($B = .412$, $p < .01$). To assess the conditional indirect and total effects, we performed a new bootstrapping procedure with 10,000 samples. For the moderated mediation of LMX on job satisfaction through perceived societal impact, the unstandardized conditional indirect effect was .056 ($CI = .031 – .081$, $p < .010$). The index of moderated mediation for perceived societal impact was .019 ($CI = .002 – .050$). Taken together, these results lead us to confirm Hypothesis 3(c): we find a moderation mediation, with LMX strengthening the relationship between performance management consistency and perceived societal impact. However, LMX moderately weakens the direct relationship between performance management consistency and job satisfaction, leading us to reject Hypothesis 3(b).

Table 3.4. Regression results for the hypothesized model

	PM consistency		LMX		Perceived societal impact		Job satisfaction	
	B	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Gender (1 = female)	-.055	.101	-.317*	.143	.080	.148	.081	.120
Function								
PhD grant receipients (ref.)								
Research assistant	-.023	.182	-.012	.256	-.018	.264	.065	.212
Teaching and research assistant	-.033	.145	-.006	.204	-.111*	.212	.107*	.171
Post-doc	-.024	.169	-.015	.238	-.004	.245	.136**	.197
Faculty								
Medicine (ref.)								
Pharmaceuticals	.017	.265	.015	.373	-.053	.388	-.017	.312
Veterinary medicine	-.059	.192	-.074	.271	-.064*	.281	-.066	.226
Applied Sciences	.005	.146	-.094	.205	-.140	.214	-.015	.173
Bioscience	.024	.141	.038	.198	-.083	.206	-.064	.166
Engineering	-.063	.149	.027	.211	-.059	.218	-.118	.176
Tenure (in years.)	-.211***	.017	-.109	.024	.080	.022	.092	.020
PM consistency					.219***	.102	.202***	.068
LMX					.140*	.239	.412***	.050
PM consistency x LMX					.130*	.044	-.098*	.036
Perceived societal impact							.205***	.048

Note. PM = performance management. N = 350. †p < .10;*p < .05; **p < .01; ***p < .001. χ^2 = 917.295 df = 373, CFI = .899, TLI = .880, RMSEA = .065, SRMR = .162.

Figure 3.2. Visual depiction of the hypothesized model



Note. The arrows above represent associations between variables, but do not necessarily indicate causal relationships.

To ease interpretation, we plotted the moderations' separate effects in Figure 3 and Figure 4 (Dawson, 2014). In Figure 3, we observe performance management consistency to increase perceived societal impact. For academic employees in a high-quality LMX relationship with their research leader, perceived impact is higher, while the slope for LMX stays more-or-less constant. Likewise, in Figure 4, consistent performance management system increases job satisfaction. However, combined with high performance management consistency, the relative contribution of LMX to academic employees' job satisfaction decreases.

Figure 3.3 Graphical depiction of the first-stage moderation of LMX.

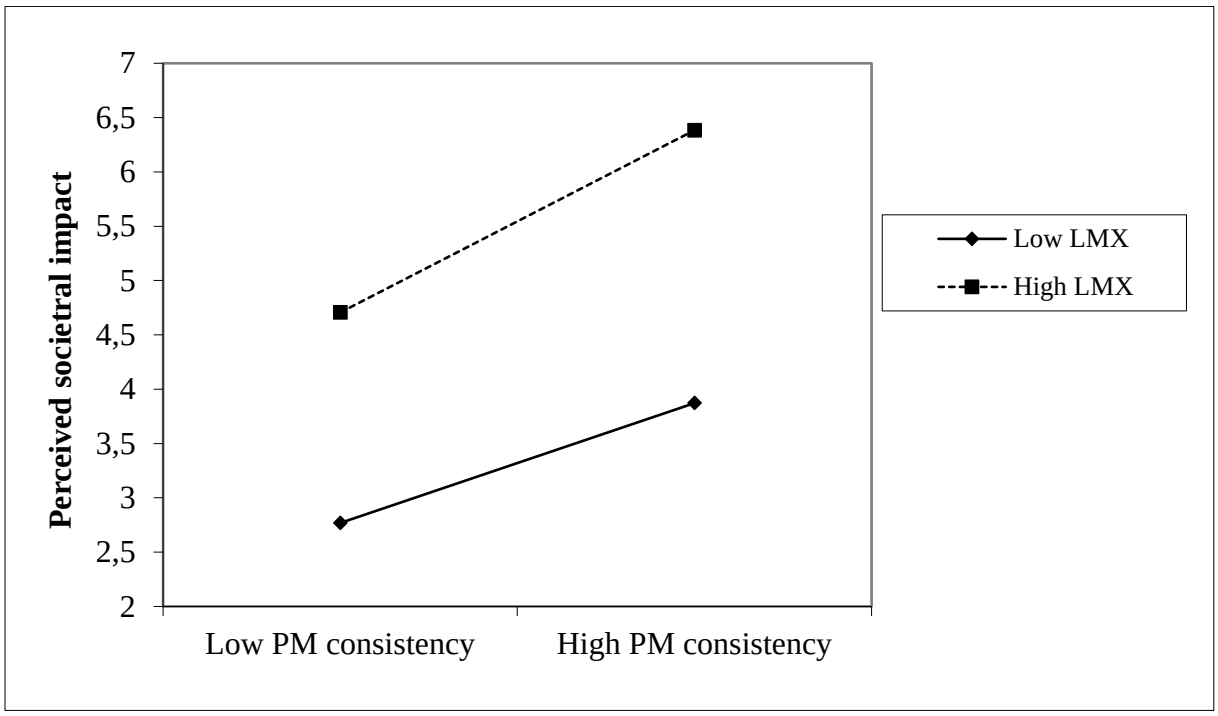
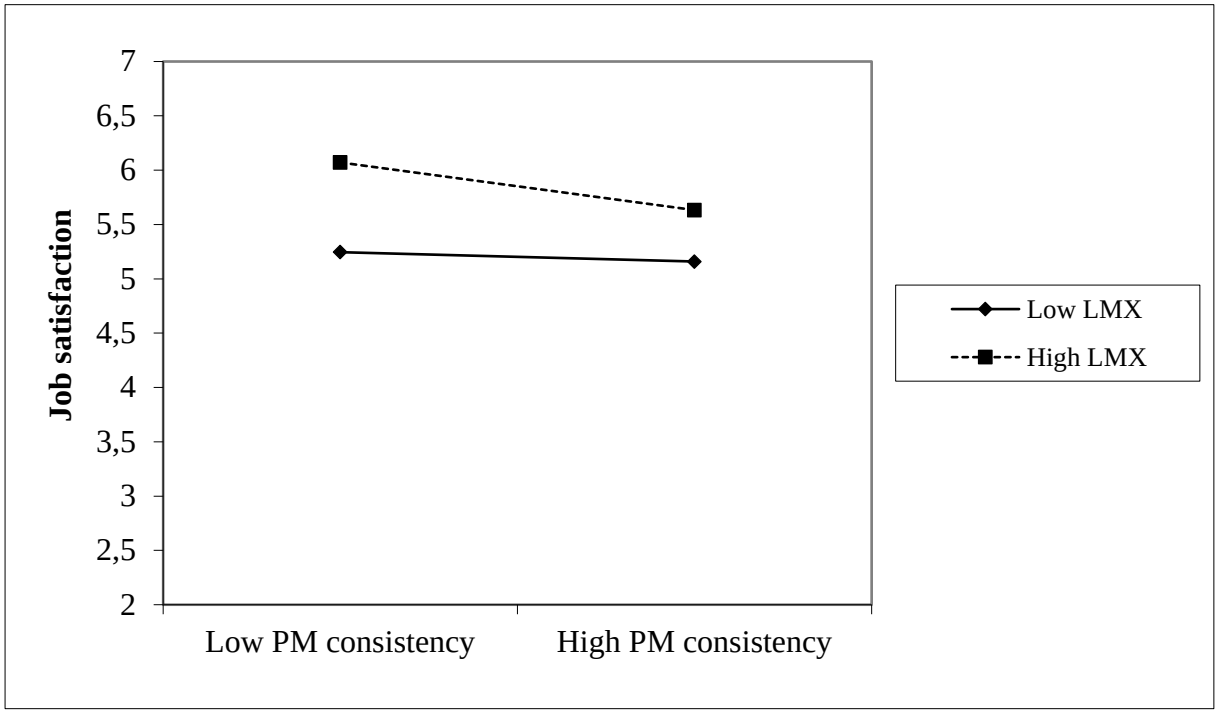


Figure 3.4.Graphical depiction of the direct-effect moderation of LMX.



3.5 Discussion

For the benefit of performance management effectiveness in public organizations, this study aimed at grasping how performance management systems can avoid unintended effects on employees. We hypothesized that when performance management systems are consistent in the messages they communicate to employees across goal-setting, feedback and evaluation, this would be associated with employees (1) perceiving more societal impact in their work and (2) having higher job satisfaction levels. Furthermore, we argued that these linkages would be stronger in constructive leader-employee relationships.

Based on a study of academic employees, our empirical findings predominantly support our hypotheses, with one notable exception (Hypothesis 3(b)). We demonstrated a moderate positive

relationship between performance management consistency and societal impact (Hypothesis 1(a)), as well as between performance management consistency and job satisfaction (Hypothesis 1(b)), suggesting that consistent performance management systems could help employees to perceive impact in and feel satisfied with their job. Subsequently, we observed that part of the effect of performance management consistency on job satisfaction was mediated by perceived societal impact (Hypothesis (2)). Finally, we also found support for moderating and moderated mediation effects. When LMX is high, the effect of performance management consistency on perceived societal impact is stronger (Hypothesis 3(a)), while the mediation effect also increases in size (Hypothesis 3(b)). We also observed LMX moderated the direct relationship between performance management consistency and job satisfaction, although the direction of this effect was negative and disconfirmed our expectations (Hypothesis 3(c)). In other words, combined with a consistent performance management system, the relative contribution of high-quality LMX relationships to employees' job satisfaction was lower than anticipated.

3.5.1 Theoretical implications

From a theoretical point of view, our empirical results suggest that theories of information processing and job design can be combined to arrive at a more comprehensive understanding of performance management systems and their effects on employees. In line with signaling theory (Spence, 1978) and its recent application to performance management systems by Biron et al. (2011), our findings suggest that employees might use intra-organizational signals from performance management systems and their leaders to make idiosyncratic interpretations about the societal impact and significance of their job (Alvesson & Kärreman, 2007; Ehrnrooth & Björkman, 2012). Furthermore, we found that perceived societal impact, as a key psychological state,

ultimately influences important outcomes like job satisfaction, supporting job characteristics theory (Morgeson & Humphrey, 2006). Combined, these theoretical perspectives endorse a relational approach to performance management systems effectiveness, rooted in intra-organizational communication and work relations. In addition, we make two further contributions to the literature.

As a first contribution, we find that people management matters for employees' well-being. This provides empirical support for a nuanced view on performance management, in that performance management systems do not necessarily have negative effects on employees' well-being but can also entail positive effects when employees' perceptions of configurational aspects, such as consistency are considered (den Hartog et al., 2013; Jacobsen & Anderson, 2014). The more performance management systems are coherent in the messages they communicate to employees, the more employees' well-being prospers (Van Waeyenberg et al., 2017). When performance management systems are consistent, employees perceive more societal impact in their work and are more satisfied with their job. Under this condition, performance management systems have a more optimal 'information advantage' by allowing employees to see how their goals and expectations fit with the public organization's societal mission and values (Van Dooren et al., 2015; Selden & Sowa, 2011) and a larger 'coordination advantage', reducing stressful conflicting and ambiguous demands by offering clarity and predictability (Fletcher & Williams, 1996; Jung, 2014).

Consistent performance management systems are more effective in environments where employees have constructive professional relationships with their leader. Hereby, these relationships can serve as 'amplifiers' of the signals sent by performance management systems (Audenaert et al., 2019). Our results confirm this is the case for the relationship between performance management consistency and perceived societal impact. However, we cannot reproduce such results for the relationship between performance management consistency and job satisfaction.

Counterintuitively, we observe a negative interaction effect of LMX, suggesting that in constructive leader-employee relationships the beneficial effects of performance management systems are slightly reduced. This is particularly interesting, as the LMX' potential drawbacks rarely feature in the empirical literature. A handful of scholars (Kang & Steward, 2007; Kauppila, 2015) suggests that having a good relationship with one's leader might entail some advantages (e.g., additional information, challenges and opportunities), but could also be subjected to 'diminishing returns'. Being in a leaders' 'in-group', might entail greater demands in the form of larger workloads, stronger obligations and increased personal favors towards the leader in exchange for his or her efforts towards the employee. Such increased demands bear down on employees' well-being. Also, they reduce the effect of consistent performance management systems, as they could present increased demands over and above the goals and expectations stipulated by performance management systems. In other words, the joint effects of leader behavior and performance management systems represent a careful balancing act, further demonstrating the need for future research to take leader behavior into account when studying performance management systems and their outcomes (Butterfield et al., 2004; Campbell et al., 2016).

Following Moynihan, Pandey, and Wright (2012), our second contribution lies in empirically connecting societal and prosocial values with performance management implementation. Such a link was previously suggested (Van Loon et al., 2015). However, it was not put to empirical testing. Our findings show that through stimulating employees' perceived societal impact, performance management systems can affect other employee well-being aspects, like job satisfaction. Not only does this lend support to the idea that societal impact perceptions are equally important as motivational aspects of public service (Stritch & Christensen, 2014; Van Loon et al., 2018). The unique connection between performance management systems and perceived societal impact also

suggests that performance management systems need to take into account societal and prosocial values to foster employees' positive perceptions (Moynihan & Pandey, 2012) and avoid unintended well-being effects, such as work alienation (Tummers et al., 2009; 2013). Even in a context as higher education, where the relationship between performance management systems and societal impact is increasingly questioned (Watermeyer, 2015; 2016), consistent performance management implementation is positively linked to the societal impact and job satisfaction of academic employees, while constructive leader relationships can play a facilitating role in the process. Overall, this suggests that leadership and performance management systems matter in higher education (Bauwens et al., 2019; Broadbent, 2010; Decramer et al., 2012), adding to a more nuanced understanding of performance management "as a constructive process rather than simply another management activity" (Selden & Sowa, 2011, p. 260).

3.5.2 Practical implications

Public leaders should be mindful of societal impact, since our analyses show it is an important influence for public employees' job satisfaction. In this sense, our analyses show that public leaders, and junior researchers especially, are less 'otherworldy' compared to popular claims. At the same time, performance management systems are capable of altering the extent to which employees experience societal impact in their job. To avoid that public employees lose connection with the social mission and values of the organization, our empirical observations suggest it is imperative that public leaders streamline performance management communication. Goals and expectations should be clearly communicated during goal-setting, while subsequent feedback and evaluation should occur along the lines of those goals and expectations (Van Waeyenberg et al., 2017). When performance management systems are streamlined as such, public employees

understand better what is expected of them and how it connects with the (societal) mission of their (public) organization. The present decentralization of performance management responsibilities in contemporary organizations implies that performance management systems should not be considered independent of the leadership of leaders in different echelons of the organization (Butterfield et al., 2004; Campbell et al., 2016). Our findings show that performance management implementation benefits under constructive leader-employee relationships. Consequentially public organizations should recognize these leaders in this role and offer sufficient training and support employees (Van Thielen et al.; 2018; Van Wart; 2014), preferably by means of appropriate leader development that combines performance management implementation skills with soft skills on constructively dealing with employees.

3.5.3 Limitations

Notwithstanding we tested moderation effects, we used cross-sectional data, which is prone to CSB (George & Pandey, 2017), but also problems of endogeneity. Using cross-sectional data implies that the causal direction between performance management systems, societal impact and job satisfaction cannot be ascertained or that one is able to exclude other factors (e.g., personality traits, societal beliefs) that could be at play. Such problems of reversed causality and omitted variable bias continue to constitute a problem in public administration research, especially in research on societal impact (Stritch & Christensen, 2014). To that end, experimental designs are proposed as solution (Bouwman & Grimmelikshuijsen, 2016; see also Chapter IV), but also longitudinal data (Stritch, 2017), which would help to account for temporal dynamics in how employees perceive performance management systems, LMX and societal impact.

By examining performance management consistency, we heavily relied on employees' perceptions of the performance management process (i.e. how performance management is conducted as opposed to the goals and desired behaviors that form its content; Bowen & Ostroff, 2004). That employees perceive consistency between goals and outcomes of performance management systems does not imply that such perceptions correspond to reality or that employees fully grasp the goals or desired behaviors (Jacobsen & Andersen, 2014; Selden & Sowa, 2011). In this sense, future research could proceed in two ways. On the one hand, it could take into account other success conditions of the performance management process, like the extent to which goals and desired behaviors are visible, legitimate and understood by employees (i.e. performance management system distinctiveness; see Chapter IV). On the other hand, scholars could jointly examine aspects of the performance management process with the content of performance management systems (den Hartog et al., 2004), specifically the kind of and extent to which such goals serve a societal purpose. A related limitation is that while leaders can be dutifully consistent in their implementation of performance management systems and maintain high-quality relationships with their followers, this does not imply that they endorse the organizational mission and values (e.g., see studies on strategic commitment and user acceptance; cf. George, Desmidt, Cools, & Prinzie, 2018). Subsequent studies could examine how leaders' acceptance of these aspects affects the relationship between performance management systems and employee outcomes.

Furthermore, we have studied employees from a single institutional setting (Melo et al., 2010). This poses a potential constraint to the external validity of our findings, as past research asserts that both perceptions of performance management systems (Kalgin et al., 2018) and societal impact (Bellé, 2013) are very much context-dependent. While authors like Kalgin et al. (2018) assert that public employees are often aware of the societal contributions of their organization, it is possible

that in certain segments of the public sector the societal contribution of organizational goals might be less salient to employees (e.g., back-office and administrative services), with consequences for the strength and significance of the link between performance management systems and societal impact. Hence, it is up to future research to further unravel the (organizational) contingencies of this relation. Such further contextual insights are necessary to advance scholarship on the role of societal impact (Van Loon et al., 2018) and might as well illuminate when and how societal impact impacts other employee attitudes and behaviors, like commitment, engagement and performance in both 'bright' and 'dark' ways (Van Loon et al., 2015).

3.6 Conclusion

We contribute to the debate on performance management effectiveness in public organizations by examining the conditions under which performance management systems can avoid unintended effects on employees. We focused on two conditions: performance management consistency and leadership, as well as how they relate to public employees' perceptions of societal impact and their job satisfaction. Findings show that when performance management systems are consistent in the messages they communicate to employees across goal-setting, feedback and evaluation, employees perceive more societal impact in their work and have higher levels of job satisfaction. These linkages are stronger in constructive leader-employee relationships, although the association between performance management consistency and job satisfaction is subjected to 'diminishing returns' in the presence of a constructive leader relationship. Our findings underscore the importance of perceived societal impact as a well-being variable in public organizations and public higher education in particular. Furthermore, our findings show that performance management systems and leadership can be complementary, with the ability to boost or buffer each other if

required by the situation. Future research may further under unravel the contextual contingencies of the relationship between performance management systems (i.e. in terms of process and content), societal impact and other employee outcomes.

3.7 References

Aguinis, H., Edwards, J., & Bradley, K. (2017). Improving our understanding of moderation and mediation in strategic management research. *Organizational Research Methods*, *20*(4), 665–685.

Alvesson, M., & Kärreman, D. (2007). Unraveling HRM: Identity, ceremony, and control in a management consulting firm. *Organization Science*, *18*(4): 711–723.

Anderson, D., and J. Stritch. 2015. "Goal clarity, task significance, and performance: evidence from a laboratory experiment." *Journal of Public Administration Research and Theory*, *26*(2), 211–225.

Audenaert, M., Decramer, A., George, B., Verschuere, B., & Van Waeyenberg, T. (2019). When employee performance management affects individual innovation in public organizations: The role of consistency and LMX. *The International Journal of Human Resource Management*, *30*(5): 815-834.

Audenaert, M., Vanderstraeten, A., & Buyens, D. (2017). When affective well-being is empowered: The joint role of leader-member exchange and the employment relationship. *The International Journal of Human Resource Management*, *28*(15), 2208–2227.

Bauer, T., & Green, S. (1996). Development of leader-member exchange: A longitudinal test. *Academy of Management Journal*, *39*(6), 1538–1567.

Bauwens, R., Audenaert, M., Huisman, J., & Decramer, A. (2019). Performance management fairness and burnout: implications for organizational citizenship behaviors. *Studies in Higher Education*, *44*(3), 584-598.

Bednall, T. C., Sanders, K., & Runhaar, P. (2014). Stimulating informal learning activities through perceptions of performance appraisal quality and human resource management system strength: A two-wave study. *Academy of Management Learning & Education*, *13*(1), 45-61.

Bellé, N. (2013). Leading to make a difference: A field experiment on the performance effects of transformational leadership, perceived social impact, and public service motivation. *Journal of Public Administration Research and Theory*, *24*(1), 109-136.

Bernerth, J. B., & Aguinis, H. (2016). A critical review and best-practice recommendations for control variable usage. *Personnel Psychology*, *69*(1), 229-283.

Biron, M., Farndale, E., & Paauwe, J. (2011). Performance management effectiveness: lessons from world-leading firms. *The International Journal of Human Resource Management*, *22*(06), 1294-1311.

Bos-Nehles, Anna, and Mieke Audenaert. (forthcoming). LMX And HRM: A multi-level review of how LMX is used to explain employment relationships In K. Townsend, K. Cafferky, T. Dundon, & M. Aoife *Introduction to Theories of Human Resources and Employment Relations*. Boston, MA: Elgar Publishing.

Bouwman, R., & Grimmelikhuijsen, S. (2016). Experimental public administration from 1992 to 2014: A systematic literature review and ways forward. *International Journal of Public Sector Management*, *29*(2), 110-131.

Bowen, D. E., & Ostroff, C. (2004). Understanding HRM–firm performance linkages: The role of the "strength" of the HRM system. *Academy of Management Review*, *29*(2), 203-221.

Breaugh, J., Ritz, A., & Alfes, K. (2018). Work motivation and public service motivation: disentangling varieties of motivation and job satisfaction. *Public Management Review*, *20*(10), 1423-1443.

Broadbent, J. (2007). If you can't measure it, how can you manage it? Management and governance in higher educational institutions. *Public Money and Management*, *27*(3), 193-198.

Brown, K. (2004). Human resource management in the public sector. *Public Management Review*, *6*(3), 303-309.

Butterfield, R., Edwards, C., & Woodall, J. (2004). The new public management and the UK police service: The role of the police sergeant in the implementation of performance management. *Public Management Review*, *6*(3), 395-415.

Caillier, J. G. (2016). Does public service motivation mediate the relationship between goal clarity and both organizational commitment and extra-role behaviours? *Public Management Review*, *18*(2), 300-318.

Caillier, J. G. (2017). The impact of high-quality workplace relationships in public organizations. *Public Administration*, *95*(3), 638-653.

Cammann, C., Fichman, M., Jenkins, D., & Klesh, J. (1983). Assessing the attitudes and perceptions of organizational members. In S. Seashore, E. Lawler, P. Mirvis, & C. Cammann *Assessing Organizational Change: A Guide to Methods, Measures, and Practices* (pp. 71–138). New York, NY: Wiley.

Campbell, J. W., Lee, H., & Im, T. (2016). At the Expense of others: Altruistic helping behaviour, performance management and transformational leadership. *Public Management Review*, *18*(6), 795-818.

Cho, Y. J., & Poister, T. H. (2013). Human resource management practices and trust in public organizations. *Public Management Review*, *15*(6), 816-838.

Crosby, B. C., & Bryson, J. M. (2018). Why leadership of public leadership research matters: and what to do about it. *Public Management Review*, *20*(9), 1265-1286.

Davies, S. R. (2013). Research staff and public engagement: a UK study. *Higher Education*, *66*(6), 725-739.

Dawson, J. F. (2014). Moderation in management research: What, why, when, and how. Journal of *Business and Psychology*, *29*(1), 1-19.

Decramer, A., Smolders, C., Vanderstraeten, A., & Christiaens, J. (2012). The impact of institutional pressures on employee performance management systems in higher education in the Low Countries. *British Journal of Management*, *23*(S1), S88-S103.

Decramer, A., Audenaert, M., Van Waeyenberg, T., Claeys, T., Claes, C., Vandevelde, S., Van Loon, J. & Crucke, S. (2015). Does performance management affect nurses' well-being? *Evaluation and Program Planning*, *49*(1), 98-105.

DeHart-Davis, L., & Pandey, S. K. (2005). Red tape and public employees: Does perceived rule dysfunction alienate managers? *Journal of Public Administration Research and Theory*, *15*(1), 133-148.

Den Hartog, D. N., Boon, C., Verburg, R. M., & Croon, M. A. (2013). HRM, communication, satisfaction, and perceived performance: A cross-level test. *Journal of Management*, *39*(6), 1637-1665.

Den Hartog, D. N., Boselie, P., & Paauwe, J. (2004). Performance management: A model and research agenda. *Applied Psychology*, *53*(4), 556-569.

Diefenbach, T. (2009). New public management in public sector organizations: the dark sides of managerialistic 'enlightenment'. *Public Administration*, *87*(4), 892-909.

Dietz, C., & Scheel, T. (2017). Leadership and Presenteeism among Scientific Staff: The Role of Accumulation of Work and Time Pressure. *Frontiers in Psychology*, *8*(1), 1885-1885.

Edwards, J. R., & Lambert, L. S. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods*, *12*(1), 1. Ehrnrooth, M., & Björkman, I. (2012). An integrative HRM process theorization: Beyond signalling effects and mutual gains. *Journal of Management Studies*, *49*(6), 1109-1135..

Favero, N., & Bullock, J. B. (2014). How (not) to solve the problem: An evaluation of scholarly responses to common source bias. *Journal of Public Administration Research and Theory*, *25*(1), 285-308.

Favero, N., Meier, K. J., & O'Toole Jr, L. J. (2014). Goals, trust, participation, and feedback: Linking internal management with performance outcomes. *Journal of Public Administration Research and Theory*, *26*(2), 327-343.

Fernandez, S. (2008). Examining the effects of leadership behavior on employee perceptions of performance and job satisfaction. *Public Performance & Management Review, 32*(2), 175-205.

Fletcher, C., & Williams, R. (1996). Performance management, job satisfaction and organizational commitment1. *British Journal of Management, 7*(2), 169-179.

Franco-Santos, M., & Doherty, N. (2017). Performance management and well-being: a close look at the changing nature of the UK higher education workplace. *The International Journal of Human Resource Management, 28*(16), 2319-235.

Fredman, N., & Doughney, J. (2012). Academic dissatisfaction, managerial change and neo-liberalism. *Higher Education*, *64*(1), 41-58.

George, B., Desmidt, S., Cools, E., & Prinzie, A. (2018). Cognitive styles, user acceptance and commitment to strategic plans in public organizations: an empirical analysis. *Public Management Review*, *20*(3), 340-359.

George, B., & Pandey, S. K. (2017). We know the Yin—But where is the Yang? Toward a balanced approach on common source bias in public administration scholarship. *Review of Public Personnel Administration, 37*(2), 245-27.

Graen, G. B., & Uhl-Bien, M. (1995). Relationship-based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *The Leadership Quarterly, 6*(2), 219-247.

Grant, A. M. (2007). Relational job design and the motivation to make a prosocial difference. *Academy of Management Review, 32*(2), 393-417.

Grant, A. M. (2008). The significance of task significance: Job performance effects, relational mechanisms, and boundary conditions. *Journal of Applied Psychology, 93*(1), 108.

Grant, A. M. (2012). Leading with meaning: Beneficiary contact, prosocial impact, and the performance effects of transformational leadership. *Academy of Management Journal, 55*(2), 458-476.

Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance, 16*(2), 250-279.

Harris, K. J., Wheeler, A. R., & Kacmar, K. M. (2009). Leader–member exchange and empowerment: Direct and interactive effects on job satisfaction, turnover intentions, and performance. *The Leadership Quarterly, 20*(3), 371-382.

Hayes, A. F. (2015). An index and test of linear moderated mediation. *Multivariate Behavioral Research, 50*(1), 1-22.

Jacobsen, C. B., & Andersen, L. B. (2014). Performance management for academic researchers: How publication command systems affect individual behavior. *Review of Public Personnel Administration, 34*(2), 84-107.

Jung, C. S. (2013). Organizational goal ambiguity and job satisfaction in the public sector. *Journal of Public Administration Research and Theory*, *24*(4), 955-981.

Kalgin, A., Podolskiy, D., Parfenteva, D., & Campbell, J. W. (2018). Performance management and job-goal alignment: A conditional process model of turnover intention in the public sector. *International Journal of Public Sector Management*, *31*(1), 65-8.

Kang, D. S., & Stewart, J. (2007). Leader-member exchange (LMX) theory of leadership and HRD: Development of units of theory and laws of interaction. *Leadership & Organization Development Journa*l, *28*(6), 531-551.

Kauppila, O. P. (2016). When and how does LMX differentiation influence followers' work outcomes? The interactive roles of one's own LMX status and organizational context. *Personnel Psychology*, *69*(2), 357-393.

Kerpershoek, E., Groenleer, M., & de Bruijn, H. (2016). Unintended responses to performance management in Dutch hospital care: Bringing together the managerial and professional perspectives. *Public Management Review*, *18*(3), 417-436.

Kline, R. (2011). *Principles and Practice of Structural Equation Modeling*. New York, NY: Guildford Press.

Knies, E., & Leisink, P. (2018). People management in the public sector. In C. Brewster & J. Cerdin (Eds.), *Not for the money: Human resource management in mission driven organizations* (pp. 15–46). Cham, Switzerland: Palgrave/Macmillan.

Lee, G., Benoit-Bryan, J., & Johnson, T. P. (2012). Survey research in public administration: Assessing mainstream journals with a total survey error framework. *Public Administration Review*, *72*(1), 87-97.

Leisink, P., & Steijn, B. (2009). Public service motivation and job performance of public sector employees in the Netherlands. *International Review of Administrative Sciences*, *75*(1), 35-52.

Levecque, K., Anseel, F., De Beuckelaer, A., Van der Heyden, J., & Gisle, L. (2017). Work organization and mental health problems in PhD students. *Research Policy*, *46*(4), 868-879.

Li, X., Sanders, K., & Frenkel, S. (2012). How leader–member exchange, work engagement and HRM consistency explain Chinese luxury hotel employees' job performance. *International Journal of Hospitality Management*, *31*(4), 1059-1066.

Matta, F. K., Scott, B. A., Colquitt, J. A., Koopman, J., & Passantino, L. G. (2017). Is consistently unfair better than sporadically fair? An investigation of justice variability and stress. *Academy of Management Journal*, *60*(2), 743-77.

McCormack, J., Propper, C., & Smith, S. (2014). Herding cats? Management and university performance. *The Economic Journal*, *124*(578), F534-F564.

Melo, A. I., Sarrico, C. S., & Radnor, Z. (2010). The influence of performance management systems on key actors in universities: the case of an English university. *Public Management Review*, *12*(2), 233-254.

Morgeson, F. P., & Humphrey, S. E. (2006). The Work Design Questionnaire (WDQ): developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology*, *91*(6), 399–406.

Moynihan, D. P., & Pandey, S. K. (2010). The big question for performance management: Why do managers use performance information? *Journal of Public Administration Research and Theory*, *20*(4), 849-866.

Moynihan, D. P., Pandey, S. K., & Wright, B. E. (2012). Prosocial values and performance management theory: Linking perceived social impact and performance information use. *Governance*, *25*(3), 463-483.

Noblet, A. J., & Rodwell, J. J. (2009). Identifying the predictors of employee health and satisfaction in an NPM environment: Testing a comprehensive and non-linear demand-control-support model. *Public Management Review*, *11*(5), 663-683.

Oh, S. S., & Lewis, G. B. (2009). Can performance appraisal systems inspire intrinsically motivated employees?. *Review of Public Personnel Administration*, *29*(2), 158-167.

Oldham, G. R., & Hackman, J. R. (2010). Not what it was and not what it will be: The future of job design research. *Journal of Organizational Behavior*, *31*(2-3), 463-479.

Perry, J. L., & Hondeghem, A. (2008). Building theory and empirical evidence about public service motivation. *International Public Management Journal*, *11*(1), 3-12.

Pick, D., & Teo, S. T. (2017). Job satisfaction of public sector middle managers in the process of NPM change. *Public Management Review*, *19*(5), 705-724.

Piening, E. P., Baluch, A. M., & Ridder, H. G. (2014). Mind the intended-implemented gap: Understanding employees' perceptions of HRM. *Human Resource Management*, *53*(4), 545-567.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, *63*(1), 539-569.

Pollitt, C. (2013). The logics of performance management. *Evaluation*, *19*(4), 346-363.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior research methods*, *40*(3), 879-891.

Rosen, C. C., Harris, K. J., & Kacmar, K. M. (2011). LMX, context perceptions, and performance: An uncertainty management perspective. *Journal of Management*, *37*(3), 819-838.

Rosseel, Y. (2012). Lavaan: An R package for structural equation modeling and more. *Journal of Statistical Software*, *48*(2), 1-36.

Rowley, J. (2000). Is higher education ready for knowledge management?. *International Journal of Educational Management*, *14*(7), 325-333.

Selden, S., & Sowa, J. E. (2011). Performance management and appraisal in human service organizations: Management and staff perspectives. *Public Personnel Management*, *40*(3), 251-264.

Spence, M. (1978). Job market signaling. In A. Diamond & M. Rothschild (eds.) *Uncertainty in Economics* (pp. 281-306). New York, NY: Academic Press.

Steijn, B., & van der Voet, J. (Forthcoming). Relational job characteristics and job satisfaction of public sector employees: When prosocial motivation and red tape collide. *Public Administration*.

Stritch, J. M. (2017). Minding the time: A critical look at longitudinal design and data analysis in quantitative public management research. *Review of Public Personnel Administration*, *37*(2), 219-244.

Stritch, J. M., & Christensen, R. K. (2014). Looking at a job's social impact through PSM-tinted lenses: Probing the motivation–perception relationship. *Public Administration*, *92*(4), 826-842.

Taylor, J., & Westover, J. H. (2011). Job satisfaction in the public service: The effects of public service motivation, workplace attributes and work relations. *Public Management Review*, *13*(5), 731-751.

Teelken, C. (2015). Hybridity, coping mechanisms, and academic performance management: Comparing three countries. *Public Administration*, *93*(2), 307-323.

Townsend, K., Wilkinson, A., Allan, C., & Bamber, G. (2012). Mixed signals in HRM: the HRM role of hospital line managers. *Human Resource Management Journal*, *22*(3), 267-282.

Tummers, L. G., & Knies, E. (2013). Leadership and meaningful work in the public sector. *Public Administration Review*, *73*(6), 859-868.

Tummers, L., Bekkers, V., & Steijn, B. (2009). Policy alienation of public professionals: Application in a new public management context. *Public Management Review*, *11*(5), 685-706.

Tummers, L., Bekkers, V., & Steijn, B. (2012). Policy alienation of public professionals: A comparative case study of insurance physicians and secondary school teachers. *International Journal of Public Administration*, *35*(4), 259-271.

Van der Wal, Z., de Graaf, G., & Lawton, A. (2011). Competing values in public management. Introduction to the symposium issue. *Public Management Review*, *13*(3), 331-341.

Van der Weijden, I., Verbree, M., & Van Den Besselaar, P. (2012). From bench to bedside: the societal orientation of research leaders: the case of biomedical and health research in the Netherlands. *Science and Public Policy*, *39*(3), 285-303.

Van Dooren, W., Bouckaert, G., & Halligan, J. (2015). *Performance management in the public sector*. London, U.K.: Routledge.

Van Loon, N., Kjeldsen, A. M., Andersen, L. B., Vandenabeele, W., & Leisink, P. (2018). Only when the societal impact potential is high? A panel study of the relationship between public service motivation and perceived performance. *Review of public Personnel Administration*, *38*(2), 139-166.

Van Loon, N. M., Vandenabeele, W., & Leisink, P. (2015). On the bright and dark side of public service motivation: The relationship between PSM and employee wellbeing. *Public Money & Management*, *35*(5), 349-356.

Van Thielen, T., Bauwens, R., Audenaert, M., Van Waeyenberg, T., & Decramer, A. (2018). How to foster the well-being of police officers: The role of the employee performance management system. *Evaluation and Program Planning*, *70*(1), 90-98.

Van Waeyenberg, T., Decramer, A., Desmidt, S., & Audenaert, M. (2017). The relationship between employee performance management and civil servants' turnover intentions: A test of the mediating roles of system satisfaction and affective commitment. *Public Management Review*, *19*(6), 747-764.

Van Wart, M. (2014). *Leadership in public organizations: An introduction*. New York, NY: Routledge.

Varma, A., Budhwar, P. & DeNisi, A. (2008*). Performance management systems: A global perspective.* London, UK: Routledge.

Vigoda-Gadot, E., & Beeri, I. (2011). Change-oriented organizational citizenship behavior in public administration: The power of leadership and the cost of organizational politics. *Journal of Public Administration Research and Theory*, *22*(3), 573-596.

Watermeyer, R. (2015). Lost in the 'third space': the impact of public engagement in higher education on academic identity, research practice and career progression. *European Journal of Higher Education*, *5*(3), 331-347.

Watermeyer, R. (2016). Public intellectuals vs. new public management: the defeat of public engagement in higher education. *Studies in Higher Education*, *41*(12), 2271-2285.

Winter, R. (2009). Academic manager or managed academic? Academic identity schisms in higher education. *Journal of higher education policy and management*, *31*(2), 121-131.

Wright, B. E., & Davis, B. S. (2003). Job satisfaction in the public sector: The role of the work environment. *The American Review of Public Administration*, *33*(1), 70-9.

Wright, B. E., & Kim, S. (2004). Participation's influence on job satisfaction: The importance of job characteristics. *Review of Public Personnel Administration*, *24*(1), 18-4.

Wright, B. E., Moynihan, D. P., & Pandey, S. K. (2012). Pulling the levers: Transformational leadership, public service motivation, and mission valence. *Public Administration Review*, *72*(2), 206-215.

Yang, K., & Kassekert, A. (2009). Linking management reform with employee job satisfaction: Evidence from federal agencies. *Journal of Public Administration Research and Theory*, *20*(2), 413-436.

Yeo, M., Ananthram, S., Teo, S. T., & Pearson, C. A. (2015). Leader–member exchange and relational quality in a Singapore public sector organization. *Public Management Review*, *17*(10), 1379-1402.

CHAPTER IV:

Does Innovative Work Behavior in Public Organizations Require Clear and Consistent Performance Management? A Survey Experiment

This chapter was presented at the European Group for Public Administration (EGPA) annual conference, Lausanne, September 3-4 as Bauwens, R., Audenaert, M., & Decramer, A. (2018). *Does innovative work behavior in public organizations require clear and consistent performance management? A survey experiment*. It is under review in *International Public Management Journal*.

Abstract

Employees' innovative work behavior is key to innovation in public organizations. While scholars contend that performance management and transformational leadership could support such behavior, it is unclear under what conditions this applies. We conducted a survey experiment with 178 academic employees, hypothesizing that performance management systems benefit employees' innovative behaviors when such systems provide clear and consistent goals and expectations, supported by transformational leadership. We can partially confirm these hypotheses: consistent performance management systems stimulate innovative work behavior among academic employees. However, this does not apply for distinctive performance management systems. Transformational leaders boost the innovative yield of consistent performance management systems, but not for distinctive performance management systems. Hence, transformational leaders seem especially effective to enforce consistency of goals and expectations when they are not that clearly demarcated. Hereby, this study contributes to our knowledge of people management and innovation in the public sector and responds to calls for more experimental approaches in public human resource management.

4.1 Introduction

Societal problems and increasing public service demands compel public organizations to innovate, in order to remain resilient and competitive (De Vries, Bekkers, & Tummers, 2016; Osborne & Brown, 2011). Key to innovation in public organization is innovative work behavior (IWB) (Bysted & Jespersen, 2014; Bos-Nehles, Bondarouk, & Nijenhuis, 2017a), a proactive behavioral process in which employees generate, champion and apply creative ideas to concrete work-related problems and situations (Scott & Bruce, 1994; Yuan & Woodman, 2010). To foster such and support IWB, scholars contend that human resource management (HRM) is essential (Bos-Nehles, Renkema, & Janssen, 2017b; Prieto & Perez-Santana, 2014).

In public organizations, HRM is strongly influenced by new public management, requiring HRM to be more efficient and performance-orientated (Blom, Kruyen, Van der Heijden, & Van Thiel, forthcoming; Van der Hoek, Groeneveld, & Kuipers, 2018). This is illustrated by the popularity of performance management systems. These are performance-oriented HRM systems that allow leaders in different segments of the organization to plan, follow-up and evaluate their employees' efforts to stimulate their employees' broad performances, and ultimately those of the organization (Denisi & Murphy, 2014; Van Dooren, Bouckaert, & Halligan, 2015). Traditionally, the innovative potential of performance management systems is questioned, as they might dampen employees' freedom and intrinsic motivation to engage in IWB (Jacobsen & Andersen, 2014a). Recent studies nuance this claim by asserting that performance management systems *can* foster IWB, but not unconditionally (e.g., Audenaert, Decramer, George, Verschuere, & Van Waeyenberg, 2019; Jacobsen & Andersen, 2014a). Given the omnipresence of performance management systems in the public sector (Van Dooren, et al., 2015), more research is required to understand exactly when

and under what conditions performance management systems could procure innovative outcomes, such as IWB.

An important caveat in research on the conditional link between performance management systems and IWB is people management (Audenaert et al., 2019; Prieto, & Perez-Santana, 2014). People management refers to the combination of (1) the implementation of performance management systems (or other HRM arrangements) and (2) the behavior of leaders that are responsible for their implementation within their respective organizational units (Knies & Leisink, 2018; Purcell & Hutchinson, 2007). This is relevant for at least two reasons. First, the outcomes of performance management systems are strongly tied to how they are implemented. In particular, how this implementation is perceived by employees (Jacobsen & Andersen, 2014b; Selden & Sowa, 2011). HRM literature asserts that when employees perceive performance management systems as providing clear goals and expectations (i.e. performance management distinctiveness) and leaders remain consistently loyal to those goals and expectations during planning, follow-up and evaluation (i.e. performance management consistency), performance management systems yield overall better employee performances (Denisi & Murphy, 2014), including innovation-related performances (Bednall, Sanders, & Runhaar, 2014). This is especially relevant in public organizations, where goals are often conflicting and/or ambiguous (Van der Hoek et al., 2018).

Second, the implementation of performance management systems is not a given: the behaviors of leaders can alter how these systems come to affect employees (Campbell, Lee, & Im, 2016; Cho & Lee, 2012; Moynihan, Pandey, & Wright, 2012). However, leaders' influence in these processes has largely been overlooked in research (Knies & Leisink, 2018; Purcell & Hutchinson, 2007). Generally, there are two broad ways to study leadership in public organizations (Tummers & Knies, 2013; Van Wart, 2013). One focuses on *leaders' behavior* (e.g., transactional and transformational

leadership), while the other constitutes a more *relational approach* (e.g., leader-member exchange). Since previous research already demonstrated the advantages of relational approaches for the association between performance management systems and IWB (Audenaert et al., 2019), we focus on leadership behavior, as worked out by transformational leadership (Burns, 1978). In line with Jenssen et al.'s (2019) recent conceptualization, we consider transformational leaders as goal-oriented leaders that stimulate employees to transcend their own self-interest by (a) formulating goals and expectations in a coherent vision, (b) sharing this vision with employees and (c) supporting this vision in the fullness of time. Despite transformational leadership's prominence in public administration literature, this leadership style has recently received some criticism (Jenssen et al., 2019; Van Knippenberg & Sitkin, 2013). Transformational leadership's potential in public organizations is increasingly called into question, especially in conjunction with more 'controlling' HRM systems, like performance management (Bellé, 2014; Wright & Pandey, 2010). Both performance management systems (Jacobsen & Andersen, 2014a) and transformational leadership (Aryee, Walumba, Zhou, & Hartnell, 2012; Pieterse, Van Knippenberg, Schippers, & Stam, 2010) have been successfully linked to employees' IWB. In addition, transformational leadership can strengthen the effects of performance management systems on employees' behavior (Campbell et al., 2016; Moynihan et al., 2012). Nevertheless, these insights have seldom been empirically combined to achieve a more inclusive understanding of performance management systems and transformational leadership.

In this article, we consider how employees' perceptions of the implementation of performance management systems (i.e. performance management distinctiveness and performance management consistency) relate to their IWB, considering the possible moderating influence of leadership behaviors. We adopt goal setting theory (Latham, Borgogni, & Petitta, 2008) to hypothesize that

performance management systems are preferably both distinctive and consistent to stimulate IWB. In addition, we built on transformational leadership literature to argue that this relationship is stronger when employees perceive their leader as such (Campbell et al., 2016). To test these hypotheses, we conduct a randomized survey experiment with experimental vignette methodology (Aguinis & Bradley, 2014).

Our approach distinguishes itself from previous studies in three ways. First, we add to the literature on public sector innovation and public sector HRM, by examining contingencies that enable particular HRM arrangements (Bos-Nehles et al., 2017b), like performance management systems, to stimulate employees' IWB, and ultimately the innovation potential of public organizations as a whole (Bysted & Jespersen, 2014; Bos-Nehles et al., 2017a). Second, we contribute to the study of people management in the public sector (Knies & Leisink, 2018), by accounting for employees' perceptions of performance management systems (Jacobsen & Andersen, 2014a) in conjunction with leaders' behavior (Cho & Lee, 2012; Moynihan et al., 2012). Finally, we respond to calls for more experimental research in public sector HRM specifically. This includes general calls for a "behavioral theory" of public HRM (see: Cantarelli, Bellé, & Belardinelli, forthcoming), but also specific calls for more experimental studies on employees' perceptions of performance management systems (Van Waeyenberg & Decramer, forthcoming). Such experimental studies could assist scholars in establishing causal links in the aforementioned relationships.

4.2 Theoretical framework

In the following section, we elaborate on goal setting theory to hypothesize how perceptions of performance management distinctiveness and performance management consistency affect IWB.

Subsequently, we argue how transformational leadership affects this association through concretizing goals and expectations, intellectual stimulation, and their ethical stance.

4.2.1 *Performance management and innovative work behavior*

IWB refers to a proactive behavioral process in which employees do not only generate novel ideas (i.e., creativity) but also champion those ideas to others and apply them to concrete work-related problems and situations (i.e., "applied creativity") (Scott & Bruce, 1994; Yuan & Woodman, 2010). In public organizations, IWB mostly targets the quality and efficiency of public service delivery (De Vries et al., 2016; Osborne & Brown, 2011). HRM systems (Bos-Nehles et al., 2017b; Bysted & Jespersen, 2014), and performance management systems in particular, fulfil a key role in creating a climate that fosters IWB, but not unconditionally (Jacobsen & Andersen, 2014a). How performance management systems affect such performances, is strongly dependent on how those employees receive and perceive them (Jacobsen & Andersen, 2014b; Selden & Sowa, 2011). The traditional view is that performance management systems should be viewed as distinct, consistent and consensual in their goal setting, feedback and evaluation to capture employees' attention and generate beneficial outcomes (Denisi & Murphy, 2014). Performance management distinctiveness is the extent to which performance management systems are observable, unambiguous, goal-relevant and legitimate in the eyes of employees (Ostroff & Bowen, 2016). It implies that employees receive clear goals and expectations and know how they will receive feedback and be evaluated on these aspects. Alternatively, performance management consistency is the degree to which performance management systems are applied uniformly across time and place. In other words, the messages leaders send to employees should be the same when setting goals and expectations, giving feedback and providing an evaluation. Recent research underscores the

importance of these two success conditions, performance management distinctiveness and performance management consistency, as more proximal predictors (Van Waeyenberg & Decramer, forthcoming) of employees' performances, compared to the more distal performance management consensus (i.e. agreement among decision makers concerning the 'right' performance management approach) (Ostroff & Bowen, 2016).

The importance of performance management distinctiveness and performance management consistency is explained by goal setting theory (Latham et al., 2008), which addresses how employees' perceptions of goals influence their performances. Goal setting theory states that goals or expectations have a stronger motivating potential and are more effective in stimulating employees' performances when they are both clear and coherently applied. When performance management systems provide such goals and expectations, they not only limit alternative interpretations or mixed messages (i.e. narrow their behavioral choice), but also accommodate employees with a sense of purpose, and channel their energy and focus towards goal-relevant activities (Rainey & Jung, 2015; Roberts & Reed, 1996). Clear and coherent goals and expectations are especially important in public organizations, where employees often face multiple and potentially conflicting goals and expectations (Van der Hoek et al., 2018). While some scholars question the effectiveness of goal setting for innovation purposes, (i.e. asserting unclearness and ambiguity leave more room for innovative ideas; Brun, & Sætre, 2009), a couple of arguments suggest employees' IWB benefits from performance management systems with clear goals and expectations (Abstein, Heidenreich, & Spieth, 2014; Stetler & Magnusson, 2015).

First, employees might be reluctant to engage in IWB straight away, as it challenges the status quo and constitutes potential precarious behavior (e.g., when IWB is non-compliant, employees risk sanctions or job loss). Similarly, employees might engage in IWB that is not beneficial or relevant

to organizational values or goals. Therefore, it is important that employees receive clear information on the purpose, value and leeway for IWB in the organization (Bos-Nehles et al., 2017b). Clear information stimulates IWB by removing pre-existing psychological thresholds, avoiding idiosyncratic interpretations and assuring employees' ideas and behaviors remain within organizational aims (Bysted & Jespersen, 2014).

Second, IWB is demanding for employees. Typically, innovative ideas are modified and challenged before they are championed and put into action. To ensure employees persist in their innovative attempts, clear goals can provide employees with a sense of direction and motivation (Shalley & Gilson, 2004). When performance management systems are distinctive, they provide employees with goal clarity (Ostroff & Bowen, 2016; Van Waeyenberg & Decramer, forthcoming), setting clear goals and expectations on IWB. At the same time, distinctive performance management systems elucidate when and how feedback and evaluation of these goals and expectations will be provided, potentially resulting in more IWB. In support of this argument, past research demonstrates that clarity of goals and expectations, feedback and evaluation are critical in fostering employees' innovative behaviors (Abstein et al., 2014; Hauff, Alewell, & Hansen, 2017), while their absence results in significantly lower levels of IWB (Shalley & Gilson, 2004). Hence, we hypothesize:

Hypothesis 1. When performance management distinctiveness is high, employees will display more IWB.

In addition to being clear, goals and expectations need to be consistently communicated and maintained to achieve their performance benefits. Such consistency reinforces the message behind the goals and expectations and avoids potential uncertainty and mixed messages that could arise from incoherence (Ostroff & Bowen, 2016). Performance management systems are consistent (i.e. performance management consistency) when their feedback and evaluation is coherent with the previously determined goals and expectations (Audenaert et al., 2019). Consistent feedback and evaluation can foster employees' IWB, because they enable employees to connect the (often more general) goals and expectations with specific tasks and behaviors, allowing them to better adapt to situational requirements (Bednall et al., 2014; Roberts & Reed, 1996). Like performance management systems, IWB is processual in nature (Scott & Bruce, 1994): consistent feedback and evaluation can alert employees to potential problems or issues in their work environment that might require an innovative solution or provide direct input to the generation and implementation of innovative ideas (Bos-Nehles et al., 2017a). Furthermore, consistent feedback and evaluation can offer employees the necessary resources to persist in their innovative attempts (Audenaert et al., 2019; Scott & Bruce, 1994; Yuan & Woodman, 2010). These arguments coincide with recent empirical studies, showcasing that having goals and expectations consistently administered across feedback and evaluation, benefits employees' innovative behaviors (Abstein et al., 2014; Audenaert et al., 2019; Hauff et al., 2017). Hence, we also propose:

Hypothesis 2. When performance management consistency is high, employees will display more IWB.

4.2.2 *The moderating role of transformational leadership*

Transformational leaders are leaders that display a series of highly committed leadership behaviors (Burns, 1978). As goal-oriented leaders, transformational leaders stimulate employees to transcend their own self-interest by (a) concretizing goals and expectations to sustain a clear and coherent vision, (b) sharing this vision with employees and (c) supporting this vision in the fullness of time (Jenssen et al., 2019).

Transformational leadership literature offers several implications of transformational leaders for the effectiveness of clear performance management goals and expectations (i.e. performance management distinctiveness). Transformational leaders typically engage in behaviors that clarify to employees how organizational visions, goals and expectations are connected to each other. That is, transformational leaders strive to translate (abstract) organizational visions into (concrete) goals and expectations. Hereby, these leaders connect goals and expectations with specific work activities, making the organizational vision more clear and distinctive to employees (Jenssen et al., 2019; Paalberg & Lavigna, 2010). Since transformational leaders act as role models and set real-life examples, clear goals and expectations are also more likely to reach results. Transformational leaders also engage in charismatic and symbolic processes that encourage employees to identify themselves with the goals of the organization and foster employees' commitment to and acceptance of goals and expectations (Bronkhorst, Steijn, & Vermeeren, 2015; Im, Campbell, & Jeong, 2016; Sarros et al., 2008). Furthermore, transformational leaders are more likely to engage in two-way communication, for example in the form of personalized feedback and frequent evaluations that enables employees to overcome difficulties in understanding and meeting their goals and expectations (Campbell et al., 2016; Moynihan et al., 2012). Additionally, because transformational leaders foster intellectual stimulation, challenging employees to overcome their

challenges (e.g., ambiguous goals and expectations) and question the status quo, transformational leaders' actions are more likely to enhance the impact of innovation-related goals and expectations (Caillier, 2016). With these arguments in mind, we advance that transformational leaders enhance the influence of performance management distinctiveness on IWB.

Hypothesis 3(a). Transformational leadership positively moderates the association between performance management distinctiveness and IWB.

Public employees often face multiple goals and expectations which can be conflicting and/or ambiguous (van der Hoek et al., 2018). As a leadership style with a visionary and long-term focus, transformational leadership can provide employees with consistency and coherence, enabling employees to overcome such challenges. By continuously streamlining goals and expectation in a coherent 'story' and showing how employees' work tasks contribute to the organizational visions, transformational leaders can induce a shared understanding among employees (Jenssen et al., 2019; Moynihan et al., 2012). In this way, the consistency of performance management goals and expectations (i.e. performance management consistency) becomes more natural and internal to employees, instead of externally imposed (Piccolo & Colquitt, 2006). Furthermore, transformational leaders typically maintain high standards of moral and ethical conduct. Transformational leaders are more likely to act in accordance with their words (i.e. 'walk their talk') and treat their employees less arbitrary and more consistent (Bass & Riggio, 2006; Paalberg & Lavigna, 2010). This moral attitude suggests that transformational leaders are more likely to respect and enhance the consistency of performance management goals and expectations across goal-setting, feedback and evaluation. Because transformational leaders lead by example,

employees have a higher chance of seeing this consistency mirrored in the behavior of their leader (Bass & Riggio, 2006; Sarros et al., 2008). Overall this suggests that transformational leaders' moral, consistent and exemplary attitude, in combination with their intellectual stimulation, is likely to foster a climate of psychological safety (Al-Husseini & Elbeltagi, 2016; Zacher & Johnson, 2015), where consistent performance management systems encourage employees to freely experiment with ideas, ultimately benefitting their IWB.

Hypothesis 3(b). Transformational leadership positively moderates the association between performance management consistency and IWB.

4.3 Methods

4.3.1 Empirical context

IWB and seeking ways how to stimulate such behavior is particularly indispensable for public organizations that are engaged in knowledge management or offer knowledge-based services (Bos-Nehles et al., 2017a). Public universities are a typical illustration of such knowledge-intensive organizations, with missions and goals that center around knowledge creation and knowledge dissemination (i.e. research and teaching; Rowley, 2000). IWB is essential for the career success of academics, enabling them to come up with innovative ideas and apply those ideas to produce ground-breaking research, inspire new pieces of training and programmes or formulate policy recommendations, which ultimately also benefit the productivity and standing of the university. The limited research on IWB in universities points to the stimulating influence of professors as leaders of their junior staff, especially when they yield a transformational leadership style (Al-

Husseini & Elbeltagi, 2016; Zacher & Johnson, 2015). There is less clarity concerning the innovative potential of performance management systems in universities. As public universities have followed other public organizations in implementing performance management systems to use financial and human resources more efficiently and effectively (Jacobsen & Andersen, 2014a), such systems could also discourage IWB and curb risk-taking by academics, in favor of conformity (Kallio, Kallio, Tienari, & Hyvönen, 2016). Despite these observations, studies have seldom studied leadership and performance management systems in combination (i.e., people management). This is nevertheless important, as public universities increasingly require professors to take on HRM responsibilities for the junior staff within their team, including the responsibility for performance management systems (Sousa, De Nijs, & Hendriks, 2010).

The present study focuses on universities in Flanders (Belgium), which are not that dissimilar from those in other (continental) European countries and regions. Flanders predominantly hosts public universities, which are accountable to the regional government for the majority of their financial and operational decisions (Pritchard, Pausits, & Williams, 2016). Due to government accountability and the legal requirement for Flemish universities to follow-up and evaluate their staff, all Flemish universities have performance management systems in place (Decramer et al., 2012). Our units of analysis are junior academic employees: predocs (i.e., PhD-students and assistants), post-docs and non-docs (i.e., scientific employees or aides, which do not have or are not involved in obtaining a PhD).

4.3.2 Data collection

We send a randomized survey experiment to 1,239 junior academic employees at the social and behavioural science faculties of an established public university in Flanders (41,000 students and

9,000 academic employees). This approach follows Jacobsen and Anderson (2014b), in keeping constant the scientific macro field (i.e., social and behavioural sciences), financial incentives and university structure to benefit high internal validity (at the cost of lower external validity). Our survey experiment followed earlier recommendations on experimental design (James, Jilke, & Van Ryzin, 2017) and general survey design (Podsakoff, MacKenzie, & Podsakoff, 2012), such as piloting the experiment, offering an incentive (i.e., gift card), separating dependent and independent variables to induce a psychological lag time, and also assuring anonymity and voluntary participation.

After three reminders, we obtained a sample of 315 respondents (gross response rate: 25.53%), of which a total of 178 fully completed the experiment (net response rate: 16.95%). This response is in line with earlier studies in this particular setting (Decramer et al., 2012; Zacher & Johnson, 2015). Sensitivity power analysis with Gpower (Erdfelder, Faul, & Buchner, 1996) showed that a sample size of 178 is sufficient for moderate effect sizes (|ρ|=.20), given a power of .80 and error probability of .05. The sample yielded 66.90% women, which is slightly higher than the institutional population (52.78%) and demonstrates the need to control for gender in the analysis. Most participants were pre-docs (71.10%), had a male leader (68.20%) and spent most of their time on research (72.50%), as compared to teaching (13.92%). On average, participants were 31.60 years old (SD = 5.97) and worked about 2.98 years under their current leader (SD = 2.69).

4.3.3 Study design and experimental conditions

Our study is designed as a randomized survey experiment with experimental vignette methodology (Aguinis & Bradley, 2014). First, we presented the participants with some introductory questions on their overall perception of performance management implementation by their leader, based on

the work of Hauf et al. (2017). This question preceded one of four vignettes, in which we asked participants to think about an actual situation in which their leader implemented set goals and expectations and gave feedback and evaluations accordingly (i.e. performance management). We presented participants with one of three different scenarios, corresponding to different combinations of high and low distinctiveness and consistency, compared to a control group with low distinctiveness, and low consistency. Our survey software (Qualtrics), allowed us to randomly assign respondents to one of the groups, which resulted in four groups of about equal size. A manipulation check followed the vignettes, consisting of a couple of items assessing participants' perceptions of performance management distinctiveness and performance management consistency in the presented vignette. The survey design and experimental vignettes are displayed in Figure 4.1.

Figure 4.1. Study design and experimental conditions

Introductory questions:
Supervisor's usual approach
to performance management implementation (Hauff et al., 2017)

C0: control / weak condition (low distinctiveness, low consistency)	**C1: mixed condition I** (low distinctiveness, high consistency)	**C2: mixed condition II** (high distinctiveness, low consistency)	**C3: strong condition** (high distinctiveness, high consistency)
Below is a description in which we ask you to think about an actual situation with your supervisor.	*Below is a description in which we ask you to think about an actual situation with your supervisor.*	*Below is a description in which we ask you to think about an actual situation with your supervisor.*	*Below is a description in which we ask you to think about an actual situation with your supervisor.*
Think about a research-related situation in which your supervisor gave **unclear instructions** about what was expected of you, when you would get feedback and on which criteria your success would be evaluated. Your supervisor's feedback and evaluation were **inconsistent** with his / her previous instructions.	Think about a research-related situation in which your supervisor gave **unclear instructions** about what was expected of you, when you would get feedback and on which criteria your success would be evaluated. Nevertheless, your supervisor's feedback and evaluation were **consistent** with his / her previous instructions.	Think about a research-related situation in which your supervisor gave **clear instructions** about what was expected of you, when you would get feedback and on which criteria your success would be evaluated. However, your supervisor's feedback and evaluation were **inconsistent** with his / her previous instructions.	Think about a research-related situation in which your supervisor gave **clear instructions** about what was expected of you, when you would get feedback and on which criteria your success would be evaluated. Your supervisor's feedback and evaluation were **consistent** with his / her previous instructions.

Manipulation check:
Performance management implementation in the described situation (Bednall et al., 2014)

4.3.4 Additional measures

Performance management distinctiveness and ***performance management consistency*** showcase whether performance management distinctiveness and performance management consistency were high or low in the scenario that was presented to the employees. Hereby we recoded the four different conditions, as shown in Figure 1.4, into two dummy variables (0= low; 1 = high), allowing us to compare the effects of both success conditions in isolation.

IWB is measured on a seven-point Likert scale (1 = strongly disagree; 7 = strongly agree) based on Scott and Bruce (1994). We adapted the wording of the scale to better fit the university context. A sample item is 'I generated creative research ideas'. While IWB is often considered multidimensional (Bos-Nehles et al., 2017a), confirmatory factor analysis supported the one-dimensionality of the scale (α = .94).

Transformational leadership is also measured on a seven-point Likert scale (1 = strongly disagree; 7 = strongly agree), drawing on the Multifactor Leadership Questionnaire (MLQ-12) by Avolio and Bass (2004). A sample item is 'My supervisor recognizes my potential'. Again, confirmatory factor analysis demonstrated this scale to be one-dimensional (α = .96).

Controls include the gender of the participant and the leader (both 0 = female, 1 = male), function (predoc or nondoc, and postdoc) and tenure (years working for the leader) of the participant. Past research reveals these variables could potentially influence IWB (Scott & Bruce, 1994), perceptions of transformational leadership (Bass & Riggio, 2006) and how employees interpret performance management systems (Van Waeyenberg et al., 2017).

4.4 Results

4.4.1 Balance and manipulation checks

Prior to the analysis, we examined the balanced composition of our experimental groups and whether our experimental vignettes succeeded in their manipulation (cf. George, Bækgaard, Decramer, Audenaert, & Goeminne, forthcoming). Based on a series of ANOVA's and Chi-Square Tests of Independence, the experimental groups yielded no significant differences in age ($F(3, 168) = .78$; $p > .10$), tenure ($F(3, 166) = 1.40$; $p > .10$) or gender ($\chi^2(3) = 1.03$; $p > .10$), suggesting they are well-balanced. We do find small differences in function composition between groups ($\chi^2(6) = 13.13$; $p < .05$), which we will control for in the analysis. Next, we tested the effectiveness of our experimental manipulation by including four items (two for distinctiveness and two for consistency) from the scale by Bednall et al. (2014), which previous studies have used to assess performance management consistency and performance management distinctiveness (e.g., Van Waeyenberg & Decramer, forthcoming). We placed the questions between the experimental vignette and the questions on IWB, asking participants to indicate on a seven-point Likert scale to what extent these items applied to the situation shown in the vignette. A series of independent *t*-tests reveal that our manipulations worked as expected. Participants reported significantly more performance management consistency in high consistency scenarios ($\Delta M = .43$; $F(3, 166) = 1.90$; $p < .10$) and significantly more performance management distinctiveness in high distinctiveness scenarios ($\Delta M = .49$; $F(3, 166) = 1.47$; $p < .05$). Therefore, we conclude respondents are able to distinguish performance management distinctiveness from performance management consistency, as there are no significant differences in performance management distinctiveness in high consistency scenarios ($\Delta M = .25$; $F(3, 166) = 1.08$; $p > .10$) and vice versa ($\Delta M = .19$; $F(3, 166) = 1.47$; $p > .10$).

4.4.2 Hypothesis testing

Table 4.1 displays the descriptive statistics and bivariate correlations, showing significant correlations between IWB one the one hand and gender (male), performance management consistency and transformational leadership on the other hand. Contrary to what was hypothesized, IWB showed no significant correlation with performance management distinctiveness. Performance management distinctiveness, in turn, correlated negatively with function (postdoc) and tenure. A series of ANOVA's and Chi-square tests also revealed no significant differences across faculties.

Table 4.1. Means, standard deviations and correlations

		Mean/%	SD	1	2	3	4	5	6	7	8
1	Gender (1 = male)	66.90	.48								
2	Leader gender (1 = male)	31.80	.47	.153*							
3	Function (1 = postdoc)	24.30	.43	-.039	-.208**						
4	Tenure (yrs.)	2.98	2.69	-.002	-.079	.537*					
5	Performance management distinctiveness (1 = high)	.47	.50	.029	.084	-.153*	-.152*				
6	Performance management consistency (1 = high)	.48	.50	.045	.084	-.085*	.012	-.025			
7	Transformational leadership	5.17	1.24	.110	.075	-.002	-.079	.053	.003		
8	Innovative work behavior (IWB)	4.69	1.17	.173*	.059	-.004	-.126	.127	.158*	.300**	

Note. † p< .100 * p < .050, ** p < .010, *** p < .001. Bivariate relations for faculty are not shown (ANOVA, Chi-square). Measured concepts showed no significant differences for faculty.

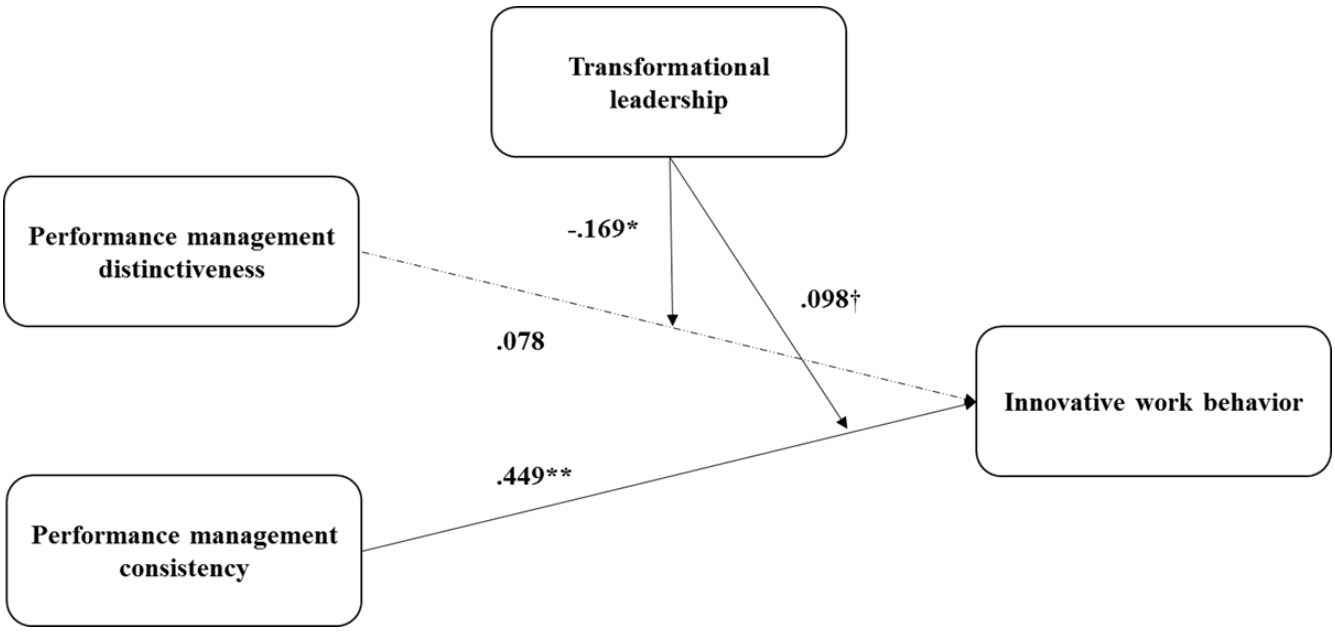
Table 4.2 shows the results of the OLS regressions in R v.3.2.5. We started from a model with only the effects of the experimental conditions (*M1*) and subsequently added the direct effect of

transformational leadership and the control variables (*M2*), followed by the interaction effects (*M3*). This final model is depicted in Figure 4.2. Each step significantly improved the explained variance, with the interaction model explaining 18.00% of the variance in IWB. In the final model, variance inflation factors (VIF) ranged between 1.09 and 1.25, remaining below 10.00, making multicollinearity not an issue (Kline 2011). Men indicated to perform more IWB (B = .167 p < .100), while IWB is slightly lower for employees that enjoy a higher tenure (B = -.153, p < .100). Disconfirming Hypothesis 1, employees faced with scenarios high in performance management distinctiveness did not report significantly more IWB than their colleagues in scenarios that were low in performance management distinctiveness.

However, supporting Hypothesis 2, employees did report significantly more IWB in the presence of scenarios high in performance management consistency (B = .449, p < .010), compared to those with scenarios low in performance management consistency. Employees also perceived more IWB in the presence of a transformational leader (B = .141, p < .001). Furthermore, transformational leadership strengthens the positive relationship between performance management consistency and IWB (B = .098, p < .100), but contrary to expectations also reduces the effect of performance management distinctiveness (B = -.169, p < .050). This implies we can reject Hypothesis 3(a) and confirm Hypothesis 3(b). The interaction of transformational leadership on the relationship between performance management distinctiveness and IWB is visualized in Figure 4.3. The figure shows that transformational leadership is more effective at stimulating IWB when performance management distinctiveness is low. In the presence of a distinctive performance management system, its added value is slightly reduced. The interaction of transformational leadership on the relationship between performance management consistency and IWB is shown in Figure 4.4. This figure clearly demonstrates the positive effect of performance management consistency on IWB

and the boosting effect of transformational leadership. Even when performance management consistency is low, the presence of a transformational leader tilts the effect over what a system high in performance management consistency would achieve on its own.

Figure 4.2. Graphical depiction of the final model



Note. The arrows above represent associations between variables, but do not necessarily indicate causal relationships.

Table 4.2. Regression results

	Innovative work behavior (IWB)		
	M1	***M2***	***M3***
	B (SE)	*B* (SE)	*B* (SE)
Gender (1 = female)	.191 (.196)*	.148 (.189)†	.167 (.186)†
Leader gender (1 = female)	.022 (.201)	-.012 (.192)	-.026 (.190)
Function (1 = postdoc)	.141 (.273)	.151 (.264)	.122 (.259)
Tenure (yrs.)	-.177 (.042)†	-.158 (.040)†	-.153 (.039)†
Faculty			
Economics (ref.)			
Political science	-.225 (.257)	-.229 (.262)	-.206 (.257)
Arts and humanities	-.186 (.217)*	-.181 (.219)†	-.219 (.217)*
Performance management distinctiveness (1 = high)		.087 (.177)	.078 (.176)
Performance management consistency (1= high)		.424 (.176)*	.449 (.172)**
Transformational leadership		.106 (.071)***	.141 (.070)***
Transformational leadership*performance management distinctiveness			-.169 (.145)*
Transformational leadership*performance management consistency			.098 (.142)†
F	2.182***	3.888***	4.195***
R^2	.078	.188	.236
Adjusted R^2	.042	.140	.180
Residual SE	1.157	1.097	1.071

Note. *N*= 149. *;B* = standardized estimate; SE = standard error.
† p< .100* p < .050, ** p < .010, *** p < .001

Figure 4.3. The moderation of transformational leadership on the relationship between performance management distinctiveness and IWB

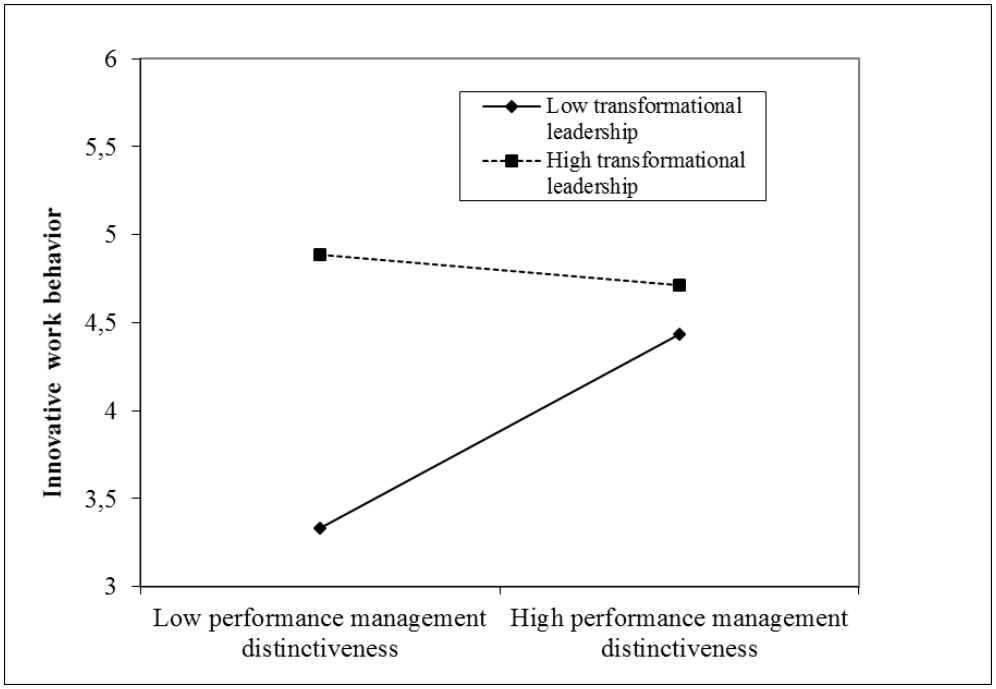
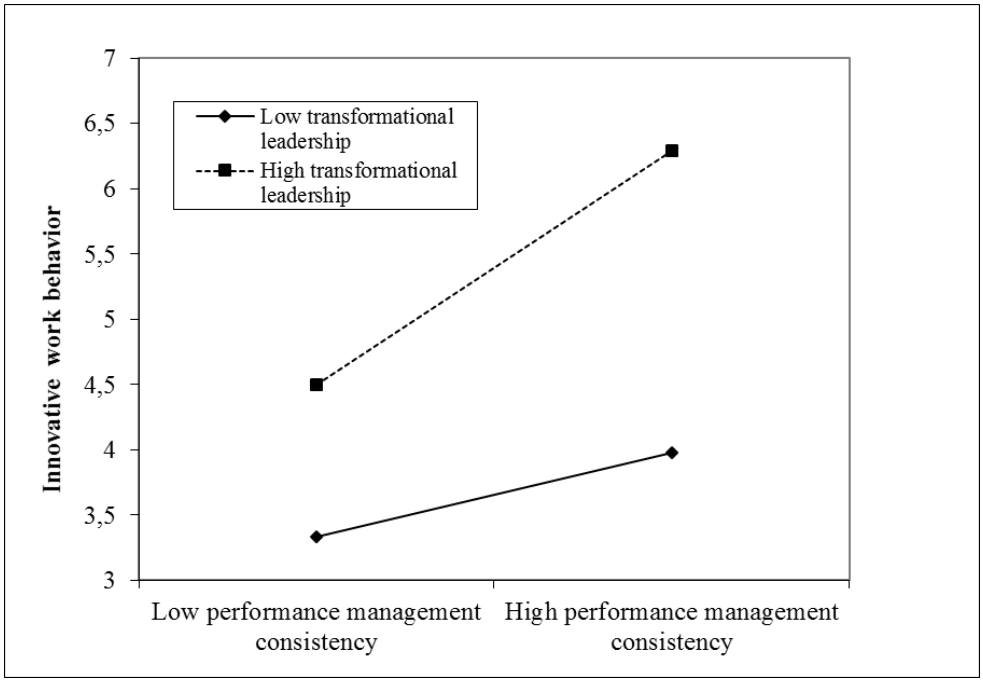


Figure 4.4. The moderation of transformational leadership on the relationship between performance management consistency and IWB



4.5 Discussion

It is unclear under what conditions performance management systems provide an added value for innovation and IWB (Audenaert et al., 2019; Jacobsen & Andersen, 2014a). At the same time, transformational leadership could boost innovative behaviors among employees. However, the effectiveness of this leadership style is doubted in public organizations, as well as in combination with performance management systems (Bellé, 2014; Wright & Pandey, 2010). The current study addressed these issues by hypothesizing that performance management distinctiveness and performance management consistency, in conjunction with transformational leadership, can stimulate IWB among academic employees. We find confirmation for some of these hypotheses, inspiring three contributions to the literature on performance management systems in higher education institutions, and in extension the broader public sector.

4.5.1 Theoretical implications

First, we add to the literature on public sector innovation and public sector HRM, by examining the contingencies that enable particular HRM arrangements in the public sector to stimulate IWB (Bos-Nehles et al., 2017b; Jacobsen & Andersen, 2014a). Contrary to the idea that IWB benefits from uncertainty and ambiguity (Brun & Sætre, 2009), we find that performance management systems could effectively spur innovation among employees, providing that such systems display coherence of those goals and expectations during planning, feedback and evaluation (i.e. performance management consistency). In our survey experiment, participants reported significantly more innovative behaviors in scenarios that displayed consistency of performance management goals and expectations across goal-setting, feedback and evaluation. In scenarios where performance management goals and expectations were clear and distinctive, employees

were not significantly more innovative. Hereby, our findings endorse the traditional goals-setting approach (Latham et al., 2008) and partly contradict a relative weight analysis by Van Waeyenberg and Decramer (forthcoming), which demonstrated the primacy of performance management distinctiveness over performance management consistency for employee outcomes. These inconsistencies suggest future research would do well to continue the development of a 'conditional view' that focusses on the contingencies of performance management systems vis-a-vis their various outcomes. After all, such studies spur more nuanced discussions on performance management systems in public organizations (Audenaert et al., 2019; Schleicher et al., 2018) and higher education institutions in particular.

Second, by accounting for employees' perceptions of performance management systems (Jacobsen & Andersen, 2014a; Selden & Sowa, 2011) in conjunction with leaders' behavior, we add to the study of people management in the public sector (Knies & Leisink, 2018). Our findings demonstrate that the interplay between performance management systems and leadership can be complex and that their interplay is more than just the sum of their parts. While transformational leaders were observed to increase to innovation-stimulating potential of consistent performance management systems, they were also found to slightly decrease the innovation-stimulating potential of distinctive performance management systems. Closer inspection suggests that transformational leaders might be more effective when performance management distinctiveness is lower. Taken together, these insights could imply that (transformational) leaders are more effective when goals and expectations are not that clearly demarcated. In other words, leaders could be more influential when HRM arrangements, like performance management systems, offer them more leeway and discretionary room (see also: Campbell et al., 2016; Knies & Leisink, 2014). Provided this is the case, transformational leaders can, however, ensure that the goals and

expectations of performance management systems are and remain consistently applied. That both performance management systems and leadership matter for innovative behaviors among employees dovetails with studies that favor the innovative potential of public service leaders (Caillier, 2016; Damnpour & Schneider, 2009; Zacher & Johnson, 2010) and performance management systems (Jacobsen & Andersen, 2014a). Overall, these observations suggest that performance management systems and leadership could be complementary mechanisms for positive employee outcomes, rather than substitutes or competing influences (Campbell et al., 2016; Moynihan et al., 2012). Especially where innovation among employees is concerned (Audenaert et al., 2019).

Finally, by operationalizing success conditions of performance management (i.e. distinctiveness and consistency) in a survey experiment, we respond to recent calls for more experimental research in public sector HRM (Cantarelli et al., forthcoming; Van Waeyenberg & Decramer, forthcoming). Such experimental studies are needed to develop causal relations between specific HRM arrangements and employee outcomes, serving the development of a more middle range 'behavioral theory' of public HRM (Cantarelli et al., forthcoming). Such a theory could help to broaden our understanding of how employees react to public HRM and the goals and expectations it confers to those employees. This is important as employees are often biased in their perceptions and information processing. Consequentially, HRM arrangements as intended by organizations often deviate from how they are perceived and experienced by employees (Jacobsen & Andersen, 2014a; 2014b; Purcell & Hutchinson, 2007; Selden & Sowa, 2011).

4.5.2 Practical implications

From a practical point of view, the above findings suggest that to unlock the innovative potential of their staff, public organizations (and higher education institutions in particular) should adopt performance management systems in which there is consistency between goal-setting, feedback and evaluation. However, the goals and expectations of these performance management systems should not be all too clearly demarcated, allowing enough leeway for employees and their leaders. To reap the further gains of performance management systems, public organizations and higher education institutions should invest in appropriate leader development that centers around idealized influence, inspirational motivation, individual consideration and intellectual stimulation. Such leader development would come in particularly handy to support performance management implementation and enhance the innovative yield of these systems.

4.5.3 Limitations

This study is not devoid of limitations. The experimental vignettes did not incorporate transformational leadership and IWB, but measured them via employee reports that are prone to social desirability (Sarros et al., 2008). This might explain why we observe high levels of IWB in our sample, while taking into account that what constitutes innovation remains subjective in nature. Future survey experiments could incorporate leadership and actual behavioral components in the vignettes and rely on multi-source ratings of IWB. Furthermore, despite our experimental method, claiming causality should not be done without caution. Our operationalization in specific vignettes focuses on one type of goals and expectations: research, a predominant goal of public universities in Flanders. Employees might react differently to performance management vignettes if operationalizing other goals and expectations (e.g. educational or public service goals) in other

professional contexts. This follows the common criticism that experimental vignette studies cannot guarantee an association with the outcomes beyond the experimental situation contexts (i.e. rigor vs. relevance). To overcome such issues future studies could employ lab experiments and even virtual reality experiments (Aguinis & Bradley, 2014). Finally, we studied transformational leadership, which is but one leadership style and is not free from criticism (Van Knippenberg & Sitkin, 2013). Hence, in addition to behavioral approaches to *behavioral approaches* to leadership, like transformational leaders, scholars should continue to investigate how and when *relational approaches* to leadership (e.g. leader-member exchanger; LMX) interact with performance management systems to affect employees' IWB (cf. Audenaert et al., 2019).

4.6 Conclusion

The IWB of employees is key to innovation in public organizations and higher education institutions in particular. Past research asserts that performance management systems and transformational leadership could foster and support such behavior. However, it is unclear under what conditions this applies. Based on a survey experiment, the present study observed that consistent performance management systems can stimulate innovation among employees. This effect could not be reproduced for distinctive performance management systems. Transformational leaders can enhance the innovative yield of performance management systems, by strengthening consistency in goals and expectations. However, transformational leaders might be less effective under distinctive performance management systems. Overall these findings suggest that the interplay between leaders and performance management systems is complex, contributing to the study of people management and performance management effectiveness in public organizations and higher education institutions in particular.

4.7 References

Abstein, A., Heidenreich, S., Spieth, P. (2014). Innovative work behaviour: The impact of comprehensive HR system perceptions and the role of work–life conflict. *Industry and Innovation*, *21*(2), 91-116.

Aguinis, H., & Bradley, K. (2014). Best practice recommendations for designing and implementing experimental vignette methodology studies. *Organizational Research Methods*, *17*(4): 351–371.

Al-Husseini, S. & Elbeltagi, I. (2016) Transformational leadership and innovation: a comparison study between Iraq's public and private higher education, *Studies in Higher Education*, *41*(1), 159-181.

Aryee, S., Walumbwa, F.O., Zhou, Q., & Hartnell, C.A. (2012). Transformational leadership, innovative behavior, and task performance: Test of mediation and moderation processes. *Human Performance*, *25*(1), 1-25.

Audenaert, M., Decramer, A., George, B., Verschuere, B., & Van Waeyenberg, T. (2019). When employee performance management affects individual innovation in public organizations: The role of consistency and LMX. *The International Journal of Human Resource Management*, *30*(5): 815-834.

Avolio, B.J. & Bass, B.M. (2004). *MLQ: Multifactor leadership questionnaire*. Mind Garden.

Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership*. Mahwah, NJ: Lawrence Erlbaum.

Bednall, T.C., Sanders, K., & Runhaar, P. (2014). Stimulating informal learning activities through perceptions of performance appraisal quality and human resource management system strength: A two-wave study. *Academy of Management Learning & Education*, *13*(1), 45-61.

Bellé, N. (2014). Leading to make a difference: A field experiment on the performance effects of transformational leadership, perceived social impact, and public service motivation. *Journal of Public Administration Research and Theory*, *24*(1), 109–136.

Blom, R., Kruyen, P.M., Van der Heijden, B.I.J.M.., & Van Thiel, S. (forthcoming). One HRM fits all? A meta-analysis of the effects of HRM practices in the public, semipublic, and private sector. *Review of Public Personnel Administration*.

Bos-Nehles, A., Bondarouk, T., & Nijenhuis, K. (2017a). Innovative work behaviour in knowledge-intensive public sector organizations: the case of supervisors in the Netherlands fire services. *The International Journal of Human Resource Management*, *28*(2), 379-398.

Bos-Nehles, A., Renkema, M., & Janssen, M. (2017b). HRM and innovative work behaviour: A systematic literature review. *Personnel Review*, *46*(7), 1228-1253.

Bronkhorst, B., Steijn, B., & Vermeeren, B. (2015). Transformational leadership, goal setting, and work motivation: The case of a Dutch municipality. *Review of Public Personnel Administration*, *35*(2), 124-145.

Brun, E., & Sætre, A. S. (2009). Managing ambiguity in new product development projects. *Creativity and Innovation Management*, *18*(1), 24-34.

Burns, J. M. (1978). *Leadership*. New York, NY: Harper and Row.

Bysted, R., & Jespersen, K.R. (2014). Exploring managerial mechanisms that influence innovative work behaviour: Comparing private and public employees. *Public Management Review*, *16*(2), 217-241.

Caillier, J. G. (2016). Linking transformational leadership to self-efficacy, extra-role behaviors, and turnover intentions in public agencies: The mediating role of goal clarity. *Administration & Society*, *48*(7), 883-906.

Cantarelli, P., Bellé, N., & Belardinelli, P. (forthcoming). Behavioral Public HR: Experimental Evidence on Cognitive Biases and Debiasing Interventions. *Review of Public Personnel Administration*.

Campbell, J. W., Lee, H., & Im, T. (2016). At the Expense of others: Altruistic helping behaviour, performance management and transformational leadership. *Public Management Review*, *18*(6), 795-818.

Cho, Y. J., & Lee, J. W. (2012). Performance management and trust in supervisors. *Review of Public Personnel Administration*, *32*(3), 236-259.

Damanpour, F., & Schneider, M. (2009). Characteristics of innovation and innovation adoption in public organizations: Assessing the role of managers. *Journal of Public Administration Research and Theory*, *19*(3), 495–522.

DeNisi, A., & Smith, C. E. (2014). Performance appraisal, performance management, and firm-level performance: A review, a proposed model, and new directions for future research. *The Academy of Management Annals*, *8*(1), 127-179.

De Vries, H., Bekkers, V., & Tummers, L. (2016). Innovation in the public sector: A systematic review and future research agenda. *Public Administration*, *94*(1), 146–166.

Erdfelder, E., Faul, F., & Buchner, A. (1996). GPOWER: A general power analysis program. *Behavior Research Methods, Instruments, & Computers*, *28*(1), 1-11.

George, B., Bækgaard, M., Decramer, A., Audenaert, M., & Goeminne, S. (forthcoming). Institutional isomorphism, negativity bias and performance information use by politicians: A survey experiment. *Public Administration*.

Hauff, S., Alewell, D., & Katrin Hansen, N. (2017). HRM system strength and HRM target achievement—toward a broader understanding of HRM processes. *Human Resource Management*, *56*(5), 715-729.

Im, T., Campbell, J.W., & Jeong, J. (2016). Commitment intensity in public organizations: Performance, innovation, leadership, and PSM. *Review of Public Personnel Administration*, *36*(3), 219-239.

Jacobsen, C.B., & Andersen, L.B. (2014a) Performance management in the public sector: Does it decrease or increase innovation and performance? *International Journal of Public Administration*, *37*(14), 1011-1023

Jacobsen, C.B., & Andersen, L.B. (2014b). Performance management for academic researchers: How publication command systems affect individual behavior. *Review of Public Personnel Administration*, *34*(2), 84-107.

James, O., Jilke, S.R., & Van Ryzin, G.G. (2017). *Experiments in Public Management Research: Challenges and Contributions*. Cambridge: Cambridge University Press.

Jensen, U. T., Andersen, L. B., Bro, L. L., Bøllingtoft, A., Eriksen, T. L. M., Holten, A. L., Jacobsen, C. B., Ladenburg, J., Nielsen, P.A., Salomonsen, H. H., Westergård-Nielsen, N., & Würtz, A. (2019). Conceptualizing and measuring transformational and transactional leadership. *Administration & Society*, *51*(1), 3-33.

Kallio, K. M., Kallio, T. J., Tienari, J., & Hyvönen, T. (2016). Ethos at stake: Performance management and academic work in universities. *Human Relations*, *69*(3), 685-709.

Knies, E., & Leisink, P. (2018). People management in the public sector. In C. Brewster & J. Cerdin (Eds.), *Not for the money: Human resource management in mission driven organizations* (pp. 15–46). Cham: Palgrave/Macmillan.

Knies, E, Boselie, P, Gould-Williams, J, Vandenabeele, W (2015). Strategic human resource management and public sector performance: context matters. *The International Journal of Human Resource Management*, *26*(3): 421–424.

Knies, E., & Leisink, P. (2014). Leadership behavior in public organizations: A study of supervisory support by police and medical center middle managers. *Review of Public Personnel Administration*, *34*(2), 108-127.

Latham, G. P., Borgogni, L., & Petitta, L. (2008). Goal setting and performance management in the public sector. *International Public Management Journal*, *11*(4), 385-403.

Moynihan, D. P., Pandey, S. K., & Wright, B. E. (2012). Setting the table: How transformational leadership fosters performance information use. *Journal of Public Administration Research and Theory*, *22*(1), 143-164.

Osborne, S.P., & Brown, L. (2011). Innovation in public services: Engaging with risk. *Public Money & Management*, *31*(1), 4-6.

Ostroff, C., & Bowen, D. E. (2016). Reflections on the 2014 decade award: Is there strength in the construct of HR system strength? *Academy of Management Review*, *41*(2), 196-214.

Paarlberg, L. E., & Lavigna, B. (2010). Transformational leadership and public service motivation: Driving individual and organizational performance. *Public administration review*, *70*(5), 710-718.

Piccolo, R. F., & Colquitt, J. A. (2006). Transformational leadership and job behaviors: The mediating role of core job characteristics. *Academy of Management Journal*, *49*(2), 327-34.

Pieterse, A. N., Van Knippenberg, D., Schippers, M., & Stam, D. (2010). Transformational and transactional leadership and innovative behavior: The moderating role of psychological empowerment. *Journal of organizational behavior*, *31*(4), 609-623.

Pritchard, R. M. O., Pausits, A., & Williams, J. (2016). *Positioning higher education: From here to there*. Rotterdam, Netherlands: Sense Publishers.

Prieto, I., & Perez-Santana, M. (2014). Managing innovative work behavior: The role of human resource practices. *Personnel Review*, *43*(2), 184-208.

Purcell, J., & Hutchinson, S. (2007). Front-line managers as agents in the HRM-performance causal chain: theory, analysis and evidence. *Human Resource management journal*, *17*(1), 3-2.

Rainey H.G., Jung C.S. (2015). A conceptual framework for analysis of goal ambiguity in public organizations. *Journal of Public Administration Research and Theory*, *25*(1), 71-99.

Roberts, G.E.., & Reed, T. (1996). Performance appraisal participation, goal setting and feedback: The influence of supervisory style. *Review of Public Personnel Administration*, *16*(4), 29-6.

Rowley, J. (2000). Is higher education ready for knowledge management? *International Journal of Educational Management*, *14*(7), 325-333.

Sarros, J. C., Cooper, B. K., & Santora, J. C. (2008). Building a climate for innovation through transformational leadership and organizational culture. *Journal of Leadership & Organizational Studies*, *15*(2), 145-158.

Schleicher, D. J., Baumann, H. M., Sullivan, D. W., Levy, P. E., Hargrove, D. C., & Barros-Rivera, B. A. (2018). Putting the system into performance management systems: A review and agenda for performance management research. *Journal of Management*, *44*(6), 2209-2245.

Shalley, C.E., & Gilson, L.L. (2004). What leaders need to know: A review of social and contextual factors that can foster or hinder creativity. *The Leadership Quarterly*, *15*(1), 33-53.

Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal*, *37*(3), 580-607.

Selden, S., & Sowa, J. E. (2011). Performance management and appraisal in human service organizations: Management and staff perspectives. *Public Personnel Management*, *40*(3), 251-264.

Stetler, K.L., & Magnusson, M. (2015). Exploring the tension between clarity and ambiguity in goal setting for innovation. *Creativity and Innovation Management*, *24*(2), 231-246.

Sousa, C. A., de Nijs, W. F., & Hendriks, P. H. (2010). Secrets of the beehive: Performance management in university research organizations. *Human Relations*, *63*(9), 1439-146.

Tummers, L. G., & Knies, E. (2013). Leadership and meaningful work in the public sector. *Public Administration Review*, *73*(6), 859-868.

Van der Hoek, M., Groeneveld, S., & Kuipers, B. (2018). Goal setting in teams: Goal clarity and team performance in the public sector. *Review of Public Personnel Administration*, *38*(4), 472-493.

Van Dooren, W., Bouckaert, G., & Halligan, J. (2015). *Performance management in the public sector*. London, U.K.: Routledge.

Van Knippenberg, D., & Sitkin, S. B. (2013). A critical assessment of charismatic—transformational leadership research: Back to the drawing board?. *The Academy of Management Annals*, *7*(1), 1-6.

Van Waeyenberg, T., & Decramer, A. (forthcoming). Line managers' AMO to manage employees' performance: the route to effective and satisfying performance management. *The International Journal of Human Resource Management*.

Van Waeyenberg, T., Decramer, A., Desmidt, S., & Audenaert, M. (2017). The relationship between employee performance management and civil servants' turnover intentions: a test of the mediating roles of system satisfaction and affective commitment. *Public Management Review*, *19*(6), 747-764.

Van Wart, M. (2013). *Leadership in public organizations: An introduction*. New York, NY: Routledge.

Wright, B. E., Moynihan, D. P., & Pandey, S. K. (2012). Pulling the levers: Transformational leadership, public service motivation, and mission valence. *Public Administration Review*, *72*(2), 206-215.

Wright, B. E., & Pandey, S. K. (2009). Transformational leadership in the public sector: Does structure matter? *Journal of public administration research and theory*, *20*(1), 75-89.

Yuan, F., & Woodman, R.W. (2010). Innovative behavior in the workplace: The role of performance and image outcome expectations. *Academy of Management Journal*, *53*(2), 323-342.

Zacher, H., & Johnson, E. (2015). Leadership and creativity in higher education. *Studies in Higher Education, 40*(7), 1210-1225

CHAPTER V:

A Matter of Giving and Taking? How Expected Contributions and Offered Inducements Affect Vitality and Performance In Team

This chapter was presented at the People Management in Education (PME) seminar, Tilburg, May 25 as Bauwens, R., Audenaert, M., & Decramer, A. (2018). *Teaming up as a matter of giving and taking: Joint cross-level level effects of expected contributions and offered inducements on vitality and performance in team.* It is under review in *Review of Public Personnel Administration*.

Abstract

Performance management systems are about managing expected contributions through goal-setting, feedback and evaluation. Ideally, there is a balance between employees' goals and expectations (i.e. expected contributions) and the rewards they receive in return (i.e. offered inducements). However, reforms have made this balance increasingly precarious in the public sector, and higher education institutions specifically. Such an imbalance yields potential consequences for the well-being and performance of employees. Drawing on job demands-resources theory, we examined the interaction between team-level offered inducements and individual-level expected contributions on the vitality and team performance of 219 lecturers in 66 bachelor programmes in Flemish university colleges. Hierarchical linear modelling showed that expected contributions positively predicted team performance, mediated by vitality. This mediation was stronger when employees perceived more offered inducements. Our study suggests that when implementing performance management systems, academic leaders should carefully balance offered inducements and expected contributions. Hereby, leaders can apply job demands-resources theory as a practical tool to create healthy and effective work environments for teams.

5.1 Introduction

Human resource management (HRM) within public organizations continues to be shaped by (post) new public management reforms, aiming at organizational efficiency and effectiveness on the one hand and more coordination and collaboration on the other hand (Bach & Bordogna, 2011; Leisink & Knies, 2018). Two important aspects of those reforms are (1) the adoption of team-based working (Richter, Dawson, & West, 2011) and (2) the introduction of performance management systems. Teams use the expertise and resources of their individual members more efficiently and allow public organizations to meet challenges such as austerity measures and increasing demands from public service users more effectively (Kuipers & De Witte, 2005). At the same time, performance management systems enable public organizations to better develop employees, teams and their performances through setting goals and expectations, accompanied with corresponding feedback and evaluation (Van Dooren, Bouckaert, & Halligan, 2015). However, performance management systems can also create unintended effects like stress, demotivation and staff turnover (Diefenbach, 2009). Hereby, performance management systems risk compromising the effectiveness of teams and team-based working (Van Thielen, Decramer, Vanderstraeten, & Audenaert, 2018).

To avoid such unintended effects, it is important that there is a balanced employment relationship underlying performance management systems (Den Hartog, Boselie, & Paauwe, 2004; Stiles, Gratton, Truss, Hope-Hailey, & McGovern, 1997). In a balanced employment relationship, the goals and expectations that leaders place on employees in their team during goal-setting (i.e. *expected contributions*, like completing performance goals in quality and quantity) are counterbalanced against the (im)material rewards with which leaders endow their employees (i.e. *offered inducements* like bonuses, training, recognition and growth opportunities) (Audenaert,

Vanderstraeten, & Buyens, 2017; Jia, Shaw, Tsui, & Park, 2014; Zhang, Song, Tsui, & Fu, 2014). This is all the more important in public organizations, where the balance between expected contributions and offered inducements is becoming increasingly precarious (Audenaert, George, & Decramer, 2019; Bach, & Bordogna, 2011). Public sector employment is progressively performance-driven and demand-intensive (Audenaert et al., 2019; Leisink & Knies, 2018), while traditional rewards and advantages, such as job security and fringe benefits, that make up the attractiveness of public sector jobs, are quickly dissolving (Clerkin & Coggburn, 2012).

The importance of a balanced employment relationship is explained by job demands-resources theory (Bakker & Demerouti, 2014), which states that employees' well-being and performance prosper when they have sufficient resources to cope with the demands in their job (and vice versa). When employees within a team perceive an unbalance between what their leaders expect of them and what they receive in return, this could not only embargo employees' well-being (Jia et al. 2014; Zhang et al., 2014), but also the potential success of the teams they are part of (Currie & Procter, 2003). However, studies investigating the interplay of offered inducements and expected contributions in public organizations remain scarce (Audenaert et al., 2019), let alone in a team setting (Van der Hoek, Groeneveld, & Kuipers, 2018). Adding to this scarcity, past research has mostly drawn on traditional interpretations of job demands-resources theory to examine offered inducements and expected contributions in public organizations (Audenaert et al., 2019). This being said, recent conceptualizations of job demands-resources theory point to a more complex picture in which job demands, such as expected contributions, can also have beneficial effects (Van den Broeck, Van Ruysseveldt, Vanbelle, & De Witte, 2013) and interact with job resources, like offered inducements, to have synergetic effects on employees' well-being and performances. In addition, more attention is needed towards the multi-level nature of job demands and resources.

Job resources are often more homogenous between team members, because employees are subjected to the same contextual and structural factors that shape the distribution of such resources (Füllemann, Brauchli, Jenny, & Bauer, 2016). Especially in public organizations, where resources are more constrained and their distribution is more formalized (Rainey, 2009). Nevertheless, more research is required in this area to better capture these complexities (Hu, Schaufeli, & Taris, 2011).

Therefore, the present study examines the interaction of offered inducements and expected contributions on the well-being and team performance of public employees. Taking into account recent conceptualizations of job demands-resources theory (Bakker, 2015; Van den Broeck et al., 2013), we further hypothesize that the influences of expected contributions could be stronger in teams with more offered inducements (Jia et al., 2014; Van den Broeck et al, 2013). To examine employees' well-being, we follow previous job demands-resources studies by zooming in on work engagement. More specific, we focus on vitality, which is considered the key distinguishing component of work engagement (Bakker, 2015). Vitality is gaining increasing attention as a concept on its own in the broader HRM literature (Ehnert, Harry, & Zink, 2014) and refers to employees' feelings of being able to work active and energetic in a persistent manner (Ryan & Frederick, 1997). Work engagement concepts, like vitality, have seldom been investigated outside of the private sector (Tummers, Kruyen, Vijverberg, & Voesenek, 2015; Tummers, Steijn, Nevicka, & Heerema, 2018). This is problematic, as work engagement concepts could be key mediators between HRM practices (here: goal-setting) and employee performances (Borst, Kruyen, & Lako, forthcoming).

Our study makes three contributions. The first contribution is contextual. Consistent with a contextual HRM (Paauwe & Farndale, 2017), we broaden our understanding of balanced expectations in a public sector performance management context (Den Hartog et al., 2004; Stiles

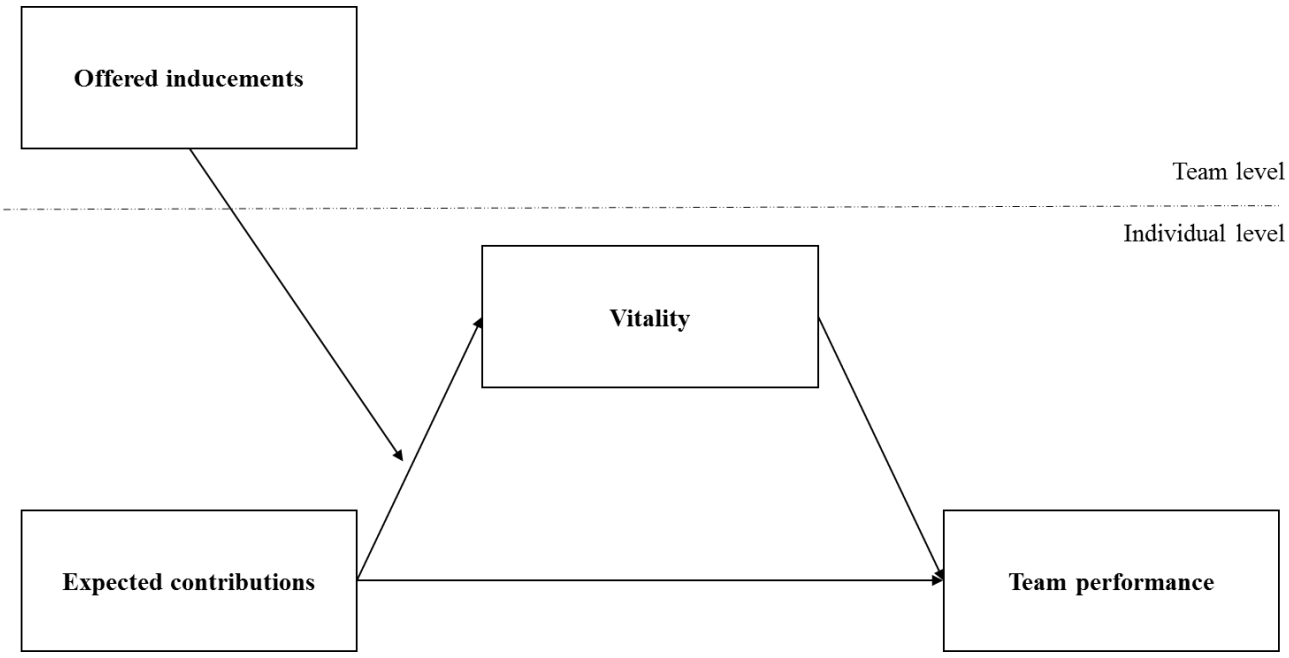
et al., 1997). This is realized by examining employees' expected contributions and offered inducements, vis-à-vis their vitality and team performance in a sample of university college lectures. A focus on higher education institutions is warranted, given heightened concerns over unbalanced employment relationships in the higher education sector (Devonport, Biscomb, & Lane, 2008). Our second contribution is that we add to building a psychological perspective in public (human resource) management (cf. Grimmelikhuijsen, Jilke, Olsen, & Tummers, 2016). On the one hand, this is realized by introducing a work engagement concept from positive psychology, like vitality, in public administration (Borst, 2018; Tummers et al., 2015; Tummers et al., 2018). On the other hand, this psychological perspective is also achieved by drawing on recent conceptualizations of job demands-resources theory (Bakker, 2015; Van den Broeck et al., 2013). In particular, this study is concerned with cross-level influences of offered inducements and expected contributions (Audenaert, Decramer, Lange, & Vanderstraeten, 2016). Hereby, we draw attention to the beneficial effects of job demands and the interaction between job demands and job resources (Hu et al., 2011). Finally, by examining team performance as (in)direct outcome of expected contributions, we also expand research on teams and team effectiveness in the public sector (Van der Hoek et al., 2018; Van Thielen et al., 2018), which is still very much concerned with formal leadership and team composition issues (Mathieu, Maynard, Rapp, & Gilson, 2008).

5.2 Theoretical framework

Figure 5.1 displays the model and hypotheses tested in this study. The combination of these relations implies a moderated mediation, in which the strength of a mediation is moderated by another variable (Edwards & Lambert, 2007). In the following section, we explain job demands-

resources theory and its application to collective perceptions of offered inducements and individual perceptions of expected contributions in more detail, allowing the development of our hypotheses.

Figure 5.1. Conceptual model



5.2.1 Job demands-resources theory

Consistent with contemporary research (e.g., Audenaert et al., 2018; Audenaert et al., 2019), we draw on job demands-resources theory to explain the effects of offered inducements (i.e. the broad range of material and developmental rewards that employs typically receive) and expected contributions (i.e. the performance goals and requirements that employees are required to fulfil) vis-à-vis employees' well-being and performance. Job demands-resources theory asserts that employees' well-being and performances, as well as their interlinkages, can be explained as functions of job demands and job resources. Job demands refer to job characteristics that strongly call upon employees' efforts (e.g., work pressure, difficult clients). Alternatively, job resources are

job characteristics that help employees to achieve their work-related goals, reduce their mental and physical costs and/or foster their personal development (e.g., autonomy, feedback, training opportunities) (Bakker & Demerouti, 2017). Traditional job demands-resources theory advances that job demands and job resources influence employees' performance and well-being via two parallel processes. Job demands decrease employees' well-being and performance in a health impairment process, while job resources manage to stimulate the same outcomes in a motivational process (Bakker & Demerouti, 2017). However, more recent interpretations of job demands-resources theory depart from this dual process in three ways:

1. They underscore that *job demands could also entail benefits for employees' well-being and performance* (i.e. job demands can work challenging and motivating), while recognizing the possible drawbacks of job resources (i.e. too much rewards or stimulation can create habituation and promote slack) (Van den Broeck et al., 2013).
2. They stress the *moderating and synergistic effects of both job demands and resources*. That is, job demands and job resources seldom achieve their beneficial effects in isolation, but interact to influence employees' well-being and performance (Hu et al., 2011).
3. They recognize that *job demands and job resources can be located at different levels* (Van den Broeck et al., 2013). Prior job demands-resources research has mostly ignored the nested structure of job resources. Employees in a team often share job resources, because they are exposed to the same structural, social and contextual factors that shape such resources (Füllemann et al., 2016). While team members might also share job demands to a certain extent, teams leaders are more likely to differentiate expectations and demands between team members based on criteria he or she sees fit, resulting in

differences in demands within teams (Henderson, Liden, Glibkowski, & Chaudry, 2009).

In line with these recent interpretations of job demands-resources theory (Bakker, 2015; Van den Broeck et al., 2013), the remainder of this article focuses on the potential beneficial effects of expected contributions (i.e. job demands at individual level) on employees' well-being and performance, considering the possible moderating influence of offered inducements (i.e. job resources at team level) (Shaw, Dineen, Fang, & Vellella, 2009).

5.2.2 Expected contributions and employee outcomes

All employees are confronted with expected contributions in the workplace. Such expected contributions can be broad, ranging from collaborating with other employees in the team to fulfilling the job inside out (Jia et al., 2013). In a performance management context, leaders typically communicate such expectations to the employees during goals-setting (Van der Hoek et al., 2018). The traditional view is that such expectations constitute a burden to employees. However, recent conceptualizations of job demands-resources theory (Van den Broeck et al., 2013) lead to suggest that high expected contributions could actually work beneficially for employees' well-being and performances. Employees can view expected contributions as challenges or opportunities to their career and personal development or as a personal endorsement (Crawford et al., 2010). Past research asserts that when leaders maintain high expected contributions vis-à-vis the employees in their team (e.g., provide them with challenging tasks, work committed for long hours), the well-being of those employees prospers, knowing their leader has confidence in their personal skills and capacities (Audenaert et al., 2016; Zhang et al., 2014). High expected contributions could also boost employees' well-being through physiological reactions (i.e., 'rush'

or ‘adrenaline’) that physically and mentally preparing employees to overcome the challenges associated with those expectations (Bakker, 2015). Although studies linking expected contributions to vitality are scarce (Eldor & Vigoda-Gadot, 2017), job demands-resources scholars argue that high expected contributions can work energizing, fueling vitality as an active component of engagement (Crawford et al., 2010; Van den Broeck et al., 2013). Coinciding, high expected contributions have been empirically observed to positively predict other aspects of employees’ wellbeing, such as affective commitment and psychological empowerment (Audenaert et al., 2019; Zhang et al., 2014). This leads us to the following hypothesis:

> **Hypothesis 1(a).** Expected contributions are positively associated with the vitality of employees within a team.

Higher expected contributions can also directly motivate employees to perform and generally lead to better employee performances (Audenaert et al., 2016; Crawford et al., 2010; Tsui & Wu, 2005). This includes team-related performances, since collaborative goals are often included in the expected contributions of employees in present-day public organizations. Such observations also resonate with goal-setting approaches of team performance, which state that employees perform better in team when they have more ambitious goals or expectations (Van der Hoek et al., 2018). However, for teams to be successful, it is not only important that employees perform on their own, but also that they are sufficiently collaborative to perform in team, given large discrepancies in individual job performance (Boyle & Aguinis, 2012; Mathieu et al., 2008). For employees to perform in team, individual employees require a particular level of expected contribution to know how they can contribute to the overarching team goals (Kuipers & De Witte, 2005; Van der Hoek

et al., 2018). When such expectations are high, employees are more likely to resort to performances in team, to be better able to tackle such demands and not let the other team members down (Koeslag-Kreunen, Van der Klink, Van den Bossche, & Gijselaers, 2018). Hence, we propose:

Hypothesis 1(b). Expected contributions are positively associated with employees' team performance.

Nevertheless the hypothesized beneficial effects of expectation contributions, employees' well-being and performance could suffer when the expectations leaders place on them are just too high to effectively deal with. In this sense, scholars like Pierce and Aguinis (2013) point attention to the 'too-much-of-a-good-thing-effect' in general management and HRM research. This phenomenon states that some managerial variables might initially have positive effects, which turn into negative effects after a certain 'threshold' is passed. Supporting this argument, a recent study by Audenaert et al. (2018) demonstrated non-linear effects of expected contributions on employee outcomes in a public sector context. Therefore, we also hypothesize:

Hypothesis 1(c). The relationship between expected contributions and vitality is non-linear (reverse U-shaped): lower levels of expectation contributions increase and higher levels decrease employees' vitality.

Hypothesis 1(d). The relationship between expected contributions and team performance is non-linear (reverse U-shaped): lower levels of expectation contributions increase and higher levels decrease employees' team performance.

5.2.3 The mediating role of vitality

Job demands-resources theory points to the mediating role of work engagement, suggesting that job demands, like expected contributions, do not only impact employees' performances directly, but can also do so indirectly, via stimulating work engagement and its sub-dimensions (Borst, 2018; Bakker & Demerouti, 2017). Hence, high expected contributions could stimulate employees' vitality, an important sub-dimension of work engagement (Crawford et al., 2010; Van den Broeck et al., 2013). Vitality is associated with a self-motivation process (Ryan & Frederick, 1996). Employees that achieve higher levels of vitality will not only possess more energy to invest in team efforts, but also (1) feel a higher need to put their energy to good use (Carmeli, 2009; Ehnert et al., 2014), (2) have a more positive work attitude and, (3) have a stronger mental resilience to overcome challenges (Tummers et al., 2015). Because of their energy, positive attitude and persistence, 'vital' employees are not only more productive in living up to their expected contributions (Bakker, 2015), but are also more likely to succeed in collaborating with others and performing in team (Torrente, Salanova, Llorens, & Schaufeli, 2012). Such arguments fit with the mutual gains-perspective on the relationship between HRM, well-being and performance, which asserts that happiness-types of well-being (e.g, vitality) mediate the relationship between HRM and performances (Guest, 2017; Van de Voorde et al., 2012). Since high expected contributions can work vitalizing (Crawford et al., 2010; Van den Broeck et al., 2013), and this productive energy is likely to benefit one's team efforts (Torrente et al., 2012), we propose:

Hypothesis 2. Vitality mediates the association between expected contributions and employees' team performance.

5.2.4 The moderating role of offered inducements

While the traditional job demands-resources canon has devoted much attention to the main effects of job resources on employees' well-being and performance (Bakker & Demerouti, 2017), recent job demands-resources studies suggest interactions of job demands and job resources, even across different levels (Hu et al., 2011). In public organizations, there is typically less differentiation in offered inducements at an individual level (e.g., smaller differences in wages, bonuses or training opportunities for comparable staff categories compared to the private sector) and more similarity at team-level of analysis (Rainey, 2009). High availability of offered inducements at team level could stimulate (or buffer) the effects of expected contributions on individual employees' work engagement and performances. Especially combinations of high expected contributions and high offered inducements are theorized to achieve beneficial employee outcomes (Audenaert et al, 2019; Jia et al., 2014; Tsui et al., 1997). That is, employees feel more energized by expected contributions, knowing they have sufficient offered inducements at their disposal within the team (Ehnert et al., 2014). In turn, this larger pool of energy could channel into team performances (Carmeli, 2009; Torrente et al., 2012). Therefore, we advance that offered inducements and expected contributions interact with each other to affect the well-being and performances of employees in a team. Earlier, we proposed a mediation of expected contributions on employees' performance in team via vitality: high expected contributions vitalize employees (Crawford et al., 2010; Van den Broeck et al., 2013), which will use this energy to perform better in team (Torrente et al., 2012). Here we propose

that this mediation is stronger or weaker, depending on the amount of offered inducements. The combination of these effects assumes a moderated mediation (Edwards & Lambert, 2007), in which a mediating effect is stronger or weaker depending on the value of a moderator:

Hypothesis 3. Offered inducements moderate the mediation of vitality in the relationship between expected contributions and team performance, such that the mediated relationship will be stronger when the offered inducements are higher.

5.3 Methods

5.3.1 Empirical context

Our hypotheses are tested in the context of public higher education, a sector vulnerable to changes in offered inducements and expected contributions in Europe. Like the larger public sector, public higher education has undergone intense reforms in its HRM towards more performance and cost-efficiency (Decramer, Smolders, Vanderstraeten, Christiaens, & Desmidt, 2012). This has often resulted in mounting workloads and expectations (e.g., administrative burdens, enhanced institutional competition, rising student numbers) against dwindling job security, low recognition and erosion of feedback and support (Kyvik & Lepori, 2010). Recent studies show that when higher education institutions do not respect a balanced goal-setting in performance management, this could have deteriorating consequences for the well-being and performance of their employees (Decramer et al., 2012; Franco-Santos & Doherty, 2017).

However, many such observations come from universities. Limited studies have devoted attention to non-university higher education institutions such as university colleges, despite possessing

different work and team dynamics (e.g., Decramer et al., 2012; Verhoeven, 2010). University colleges go by a variety of names in different European countries (e.g., universities of applied sciences, polytechnics). They differ from regular universities by predominantly focusing on professional education at undergraduate or bachelor level and a more limited engagement in research activities (Kyvik & Lepori, 2010). University colleges lacking considerate attention in HRM literature is problematic for at least three reasons. First, university colleges represent a fairly large portion of the higher education sector. Not only are they more numerous than universities, but in most countries, they collectively have more staff members and students under their wings (Kyvik & Lepori, 2010). Second, employees in university colleges face increasingly high expected contributions, resulting from continuous pressures on these institutions to innovate and adapt their teaching to demands from the labor market and broader society (Hasanefendic, 2018). Moreover, university colleges and their employees are increasingly required to invest means and efforts in the development and professionalization of research activities, competing with regular universities (Decramer et al., 2012; Kyvik & Lepori, 2010). Finally, employees in university college experience constraints in their offered inducements, as in many European countries, university colleges face budget and other resource restrictions (Stensaker & Benner, 2013).

With these arguments in mind, our focus is on public university colleges in Flanders (Belgium). Flanders has 13 university colleges, which are considered public due to their reliance on government funding to cover most of their operating costs and the obligation to justify such expenses to the regional government. Furthermore, a board of government commissioners supervises their management and decision making (Flemish Government, 2013). Within these university colleges, our units of analysis are lecturers, clustered within bachelor programmes under the direction of a programme coordinator (i.e. leaders) (Verhoeven, 2010). Within the programme,

team efforts of lecturers can take various forms, from practical matters such as teaching, exams, course content and schedules to joint educational development of the programme (Koeslag-Kreunen et al., 2018).

5.3.2 Data collection

We collected data from November 2016 to February 2017 through a paper and pencil questionnaire that was piloted beforehand. In a first step, we contacted the programme leaders of all 342 bachelor programmes taught at university colleges in Flanders. Sixty-six programmes (i.e. teams) consented to participate in the study (level-2 response rate of 19.30%). Twelve out of thirteen university colleges were represented (i.e. the exception being a small naval college). In a second step, we send out 1,000 questionnaires to lecturers in these programmes, resulting in 219 returned questionnaires (level-1 response rate of 21.90%). These response rates are consistent with previous research in higher education in Flanders (Decramer et al., 2012). On average, our sample yielded 4.66 programmes per institution and 3.82 lecturers per programme. Participating lecturers were well divided across educational domains, with most teaching business and commerce (28.40%) programmes and predominantly cooperating with 10 to 20 other lecturers (32.60%) in their programme. Most lecturers were female (54.50%) and about 41.45 years old (*SD* = 8.90). The majority had a fixed (71.6%), full-time position (67.90%) and enjoyed a tenure of 9.71 years (*SD* = 8.62).

5.3.3 Measures

We used established scales to measure our constructs, employing seven-point Likert scales (1 = strongly disagree; 7 = strongly agree), with the exception for team performance, where we respected the original five-point scale (1 = needs much improvement; 5 = is excellent). Scales for which no Dutch translation was available, had their original items forth-back translated (Brislin, 1990). Supporting construct validity, Cronbach alphas (α) ranged from .76 to .89.

Offered inducements were measured through the 10-item developmental reward scale by Jia et al. (2014), which include inducements such as participation, training and career opportunities (α = .91). Dutch items were obtained from Audenaert et al. (2017). We did not include material rewards, as differential financial incentives are more limited in public organizations (Knies et al., 2015), such as Flemish public university colleges. We aggregated individual perceptions to the team level. The theoretical reason for aggregation is that job resources are often nested at team level, because team member share the structural, social and other contextual resources that affect the distribution of such demands (Füllemann et al., 2016). The statistical reason for aggregation is based on significant differences in offered inducements between teams (ANOVA: $F(56; 158) = 1.663$, $p < .010$) and acceptable values for the intraclass correlation coefficients (ICC(1) = .15; ICC(2) =.40) and within-group agreement ($r_{wg} = .81$) (cf. LeBreton & Senter, 2008; Shieh, 2016).

Expected contributions were measured through the 13-item work requirements scale by Jia et al. (2014), which consist both of in-role and extra-role requirements. Dutch items were obtained from Audenaert et al. (2017). One item was removed (λ > .400): '[My programme coordinator expects me to] work hard without complaints' (α = .89). In line with the expectations, team-level aggregation for this variable was not supported, as there are no significant differences between teams (ANOVA: $F(56; 157) = 1.15$, p >.100).

Vitality was assessed using the corresponding Dutch items of the short Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2006) (α = .82).

Performance in team was assessed by the four-item role-based team performance scale by Welbourne et al. (1998), which measures the extent to which employees have internalized their team role (α = .76). Compared to other alternatives, the advantage of this scale is that it allows more generalizability and comparability across teams (Mathieu et al., 2008).

Control variables were included for the gender of and tenure of both leaders (programme coordinator) and employees (lecturers). Gender might influence how expectations and inducements are communicated by leaders and experienced by team members (Audenaert et al., 2019. Furthermore, expectations and inducement tend to gradually increase with tenure (i.e. in Flemish higher education, differences in tenure also reflect pay differences) (Jia et al., 2014; Zhang et al, 2014). We also added controls for part-time work and temporary contracts, as studies show that managers have different expectation and reward patterns for employees in such 'flexible arrangements' (Kalleberg, 2000). Finally, we accounted for the educational domain and team size, as we expect discrepancies in team dynamics between programmes dealing with different subject matters, as well between programmes of different sizes (cf. Van der Hoek et al., 2018). Participants were similar in terms of function (i.e. lecturer), hence we did not control for this variable.

5.3.4 Common source bias and instrument validation

Our study draws on self-reported data derived from a single questionnaire, increasing the chances of common source bias (CSB) (Podsakoff, MacKenzie, & Podsakoff, 2012). Self-reported data have drawbacks, but can be used in studies on individual perceptions and beliefs, given other

available data sources are lacking (George & Pandey, 2017). To mitigate CSB ex-priori, we followed earlier recommendations (Podsakoff et al., 2012) by (i) only including measures with established psychometric properties, (ii) underscoring participant's anonymity, (iii) voluntary participation and (iv) separating independent and dependent variables in the questionnaire to ensure a psychological lag time.

Ex post, we conducted confirmatory factor analysis with cluster-correction to account for the hierarchical nature of the data (Muthén, & Satorra, 1995). We compared the hypothesized four-factor model (all items on their respective factors) against three alternative models: a one-factor model (all items on one factor) and a common-factor model (all items on their hypothesized factors and a common factor) to account for potential CSB. In addition, we tested a plausible five-factor model (expected contributions as two factors: in-role requirements and extra-role requirements). Following Kline (2011), we consider models to fit the data when their root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR) are between .050 and .100, while their Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) are close to .9. Model selection is guided by the Satorra-Bentler chi-square ($\chi^2_{S\text{-}B}$), which gives more conservative chi-square estimates with asymptotical-corrected means and variances (Kline, 2011). The hypothesized four-factor model approaches acceptable fit ($\chi^2_{S\text{-}B}$ = 731.123; df = 456; CFI =.880; TLI = .870; RMSEA = .066; SRMR = .074), with fit indices near or approaching the cut-off values and all items loading sufficiently (λ >.400) on their hypothesized factors. The one-factor model ($\Delta\chi^2_{S\text{-}B}$ = 113.886, Δdf = 8, p < .001) and the common-factor model ($\Delta\chi^2_{S\text{-}B}$ = 215.472, Δdf = 4, p < .001) fit the data significantly worse, while the five-factor model is no significant improvement ($\Delta\chi^2_{S\text{-}B}$ = 1.351, Δdf = 2, p > .100). These observations suggest considerate CSB is absent and further support the discriminant and convergent validity of the hypothesized model.

5.3.5 Data analysis

As previously shown in Figure 5.1, our model is designed as a moderated mediation with a 1-1-1 mediation and level 2 moderator. Data was analyzed with hierarchical regression, using nlme in R v3.2.5. (Pinheiro, Bates, DebRoy, & Sarkar, 2017). For each of the tested models, we calculated the Pseudo R^2s or the proportions of employee-level (level 1) and team-level (level 2) variance that predictors in the model account for (Snijders, & Bosker, 2012). For model fit, we reported the Deviance (-2 log-likelihood; Hox 2010) and the Akaike information criterion (AIC) to allow the comparison of nested and non-nested models respectively. For the latter measures, lower values represent a better model fit. Robustness of multi-level mediation and moderated mediation was assessed with the Monte Carlo method, which calculates the average unstandardized direct and indirect effects across groups with 95% confidence intervals (*CI*) in 10,000 simulations. The method is similar to bootstrapping, but is considered more stringent and advantageous when dealing with clustered data sets (Preacher & Selig, 2012).

5.4 Results

To form an initial idea about their interlinkages, the descriptive statistics and correlations of the variables under study can be consulted in Table 5.1. On average, lecturers' perceptions of both offered inducements and expected contributions are high. At team level, offered inducements are significantly associated with leaders' gender and tenure. At employee level, there is no support for a linkage with the control variables for expected contributions, vitality and performance in team. In line with our hypotheses, expected contributions correlate with vitality and performance in team, while both are also correlated with each other. Furthermore, a series of ANOVA's revealed significant differences in team size and educational domain. Team size was related to differences

in offered inducements ($F(5, 212) = 3.81$; $p < .01$) and expected contributions ($F(5, 208) = 1.94$; $p < .10$). Both expectations and inducements were significantly more limited in teams with more than 50 lecturers. Educational domain displayed discrepancies in offered inducements ($F(4, 201) = 5.69$; $p < .00$) and team performance ($F(4, 198) = 3.05$; $p < .05$). Lectures in liberal arts reported significantly higher inducements, but also lower team performances than lecturers in other educational domains. Table 5.2 and Table 5.3 display the unstandardized estimates[4] and variance components of the different hierarchical linear models. Variance inflation factors (VIF) ranged between 1.09 and 1.25, remaining below 10.00, suggesting the absence of considerate multicollinearity (Kline 2011). Model M1 and M4 constitute the intercept-only models for vitality and team performance respectively. Based on the residual errors, we can conclude that 27.25% of the variance in vitality and 24.07% of the variance in team performance are situated at team-level. Effects for control variables are largely absent, except for full-time work and educational domain. Full-time work is associated with lower levels of vitality (M3: $b = -.252$, $p < .100$), while lecturers in healthcare programmes generally perform less in team than their colleagues in business and commerce programmes (M6: $b = -.346$, $p < .001$). The best models to test our hypotheses are M3 and M6, based on significantly lower Deviance scores and smaller AIC-values.

[4] In this study the unstandardized estimates are reported to allow meaningful intercepts. Standardizing coefficients in hierarchical regression is not advised, as it would also result in discrepancies in the estimation of variance components (cf. Hox, 2010). In other chapters of this dissertation, standardized estimates are reported to allow relative comparability of effect sizes.

Table 5.1. Means, standard deviations and correlations

		Mean / %	SD	1	2	3	4	5	6	7
	Team level									
1	Leader gender (1 = female)	56.40	.50	-						
2	Leader tenure (in years)	6.81	5.46	-.088	-					
3	Offered inducements	5.71	.49	.154*	-.056					
	Employee level									
1	Employee gender (1 = female)	46.80	.50							
2	Employee tenure (in years)	10.19	8.93	-.090						
3	Fixed vs. Temporary (1 = fixed)	73.90	.44	.115	.224**					
4	Full-time vs. Part-time (1 = full-time)	70.10	.46	-.024	.078	.273**				
5	Expected contributions	5.78	.70	.007	-.049	.045	.118			
6	Vitality	5.52	.71	.077	-.023	-.055	-.118	.277**		
7	Performance in team	3.92	.54	-.003	-.028	.083	.110	.356**	.277**	

Note. SD = standard deviation. † p< .100* p < .050, ** p < .010, *** p < .001. Bivariate associations for team size and educational domain are not shown. Team size showed significant differences in offered inducements (F(5, 212) = 3.81; p < .01) and expected contributions (F(5, 208) = 1.94; p < .10). Educational domain showed significant differences in offered inducements ($F(4, 201) = 5.69$; $p < .00$) and team performance ($F(4, 198) = 3.05$; $p < .05$).

A graphical overview combining both models is given in Figure 5.2. The models support Hypothesis 1(a) and 1(b): when employees perceive higher expected contributions, they report significantly more vitality (M3: b = .386, p < .001) and performance in team (M6: b = .282, p < .001). In addition, vitality is also related to performance in team when controlled for expected contributions (M6: b = .123 p < .050). These observations resonate with Hypothesis 2, which states that vitality mediates between perceptions of expected contributions and performance in team. Further support comes from a mediation analysis using the Monte Carlo method. Based on 10,000 simulations, the average direct effect across groups was .208 (*CI*: .101-.310) and the indirect effect was .038 (*CI*: .010-.080). The results also support hypothesis 3: offered inducements moderates the relationship between the independent and the mediator (M3: b =.155, p < .001), as well as the relationship between the independent and the dependent when controlled for the mediator (M6: b =.084, p < .050). The separate moderations are depicted in Figure 5.2 and Figure 5.3 respectively. These results are corroborated in a moderated mediation analysis, also applying the Monte Carlo method. In 10,000 simulations, the average conditional direct effect across groups was .265 (*CI*: .147-.380) and the indirect effect was .047 (*CI*: .008 -.090), amounting to a conditional total effect of .312 (*CI*: .195-.430).

To test Hypothesis 1(c) and Hypothesis 1(d), we performed additional linearity checks through hierarchical polynomial regression with expected contributions and its quadric term as predictors of vitality and performance in team. Disconfirming Hypothesis 1(d), the results yielded no significant effects curvilinear predictors for performance in team. Concerning vitality, both the main effect (b = -1.207, p < .010) and the quadratic term (b =.135, p < .05) were significant. However, these effects turned insignificant when the interaction with offered inducements was added to the model. Hence we can only partially confirm Hypothesis 1(c).

Table 5.2. Hierarchical regression results for vitality

	Vitality		
	M1	**M2**	**M3**
	***b* (SE)**	***b* (SE)**	***b* (SE)**
(Intercept)	5.52 (.06)***	3.418 (.860)***	2.564 (.911)***
Team level			
Leader gender (1 = female)		-.117 (.135)	-.114 (.136)
Leader tenure (in years)		.015 (.012)	.012 (.012)
Team size			
< 10 (ref.)		-	-
]10 - 20]		.056 (.226)	.066 (.228)
]20 - 30]		-.025 (.239)	-.034 (.241)
]30 - 40]		.060 (.269)	.012 (.272)
]40 - 50]		-.191 (.359)	-.164 (.362)
> 50		-.070 (.276)	-.084 (.278)
Educational domain			
Business & commerce (ref .)		-	-
Liberal arts		.208 (.241)	.121 (.245)
Education & social welfare		.074 (.191)	.040 (.193)
Healthcare		-.024 (.200)	-.108 (.204)
Industry & Technology		.043 (.177)	.028 (.178)
Offered inducements [OI]		.085 (.145)	.128 (.147)
Employee level			
Employee gender (1 = female)		.160 (.111)	.151 (.108)
Employee tenure (in years)		.001 (.006)	.002 (.01)
Fixed vs. Temporary (1 = fixed)		-.013 (.123)	-.009 (.12)
Full-time vs. Part-time (1 = full-time)		-.251 (.133)†	-.252 (.13)†
Expected contributions [EC]		.280 (.074)***	.386 (.08)***
Vitality			
Cross-level interaction			
EC*OI			.155 (.05)***
σ^2_e	.660	.616	.594
σ^2_{u0}	.247	.218	.238
Pseudo R^2 employee-level		.081	.082
Pseudo R^2 team-level		.097	.062
AIC	442.656	418.467	411.313
Deviance (-2logLik)	436.656	378.467	369.313

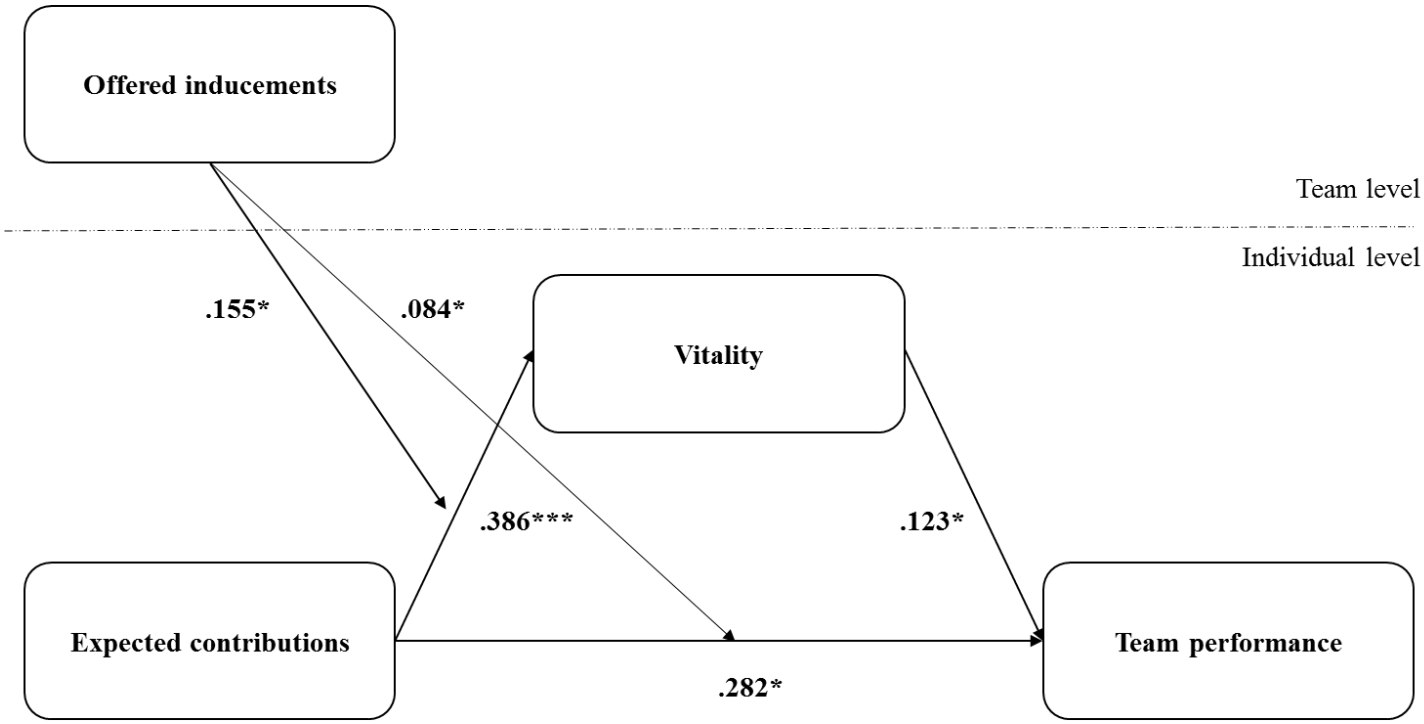
Note. $N_{level\text{-}2}$ = 53, $N_{level\text{-}1}$ = 192. *b* = unstandardized estimate, SE = standard error.

Table 5.3. Hierarchical regression results for team performance

	Team performance		
	M4	**M5**	**M6**
	***b* (SE)**	***b* (SE)**	***b* (SE)**
(Intercept)	3.919 (.042)***	1.225 (.575)*	.827 (.599)
Team level			
Leader gender (1 = female)		-.049 (.083)	-.053 (.081)
Leader tenure (in years)		.004 (.007)	.002 (.007)
Team size			
< 10 (ref.)		-	-
]10 - 20]		-.170 (.144)	-.160 (.142)
]20 - 30]		.068 (.150)	.068 (.149)
]30 - 40]		-.062 (.170)	-.085 (.168)
]40 - 50]		-.142 (.227)	-.136 (.225)
> 50		-.099 (.174)	-.103 (.172)
Educational domain			
Business & commerce (ref .)		-	-
Liberal arts		.254 (.151)	.221 (.151)
Education & social welfare		-.142 (.119)	-.160 (.116)
Healthcare		-.298 (.124)	-.346 (.125)
Industry & Technology		-.032 (.108)*	-.034 (.108)***
Offered inducements [OI]		.125 (.089)	.155 (.089)
Employee level			
Employee gender (1 = female)		.005 (.079)	.013 (.078)
Employee tenure (in years)		-.004 (.004)	-.004 (.004)
Fixed vs. Temporary (1 = fixed)		.098 (.088)	.096 (.086)
Full-time vs. Part-time (1 = full-time)		.010 (.093)	.004 (.092)
Expected contributions [EC]		.221 (.055)***	.282 (.062)***
Vitality		.145 (.053)**	.123 (.054)*
Cross-level interaction			
EC*OI			.084 (.040)*
σ^2_e	.516	.472	.467
σ^2_{u0}	.163	.089	.077
Pseudo R^2 employee-level		.175	.197
Pseudo R^2 team-level		.288	.330
AIC	350.09	281.231	278.307
Deviance (-2logLik)	344.09	239.231	234.307

Note. $N_{level\text{-}2}$ = 53, $N_{level\text{-}1}$ = 190. *b* = unstandardized estimate, SE = standard error.

Figure 5.2. Graphical overview of the hierarchical regressions results



Note. The arrows above represent associations between variables, but do not necessarily indicate causal relationships.

Figure 5.3. Cross-level interaction of offered inducements on the relationship between expected contributions and vitality

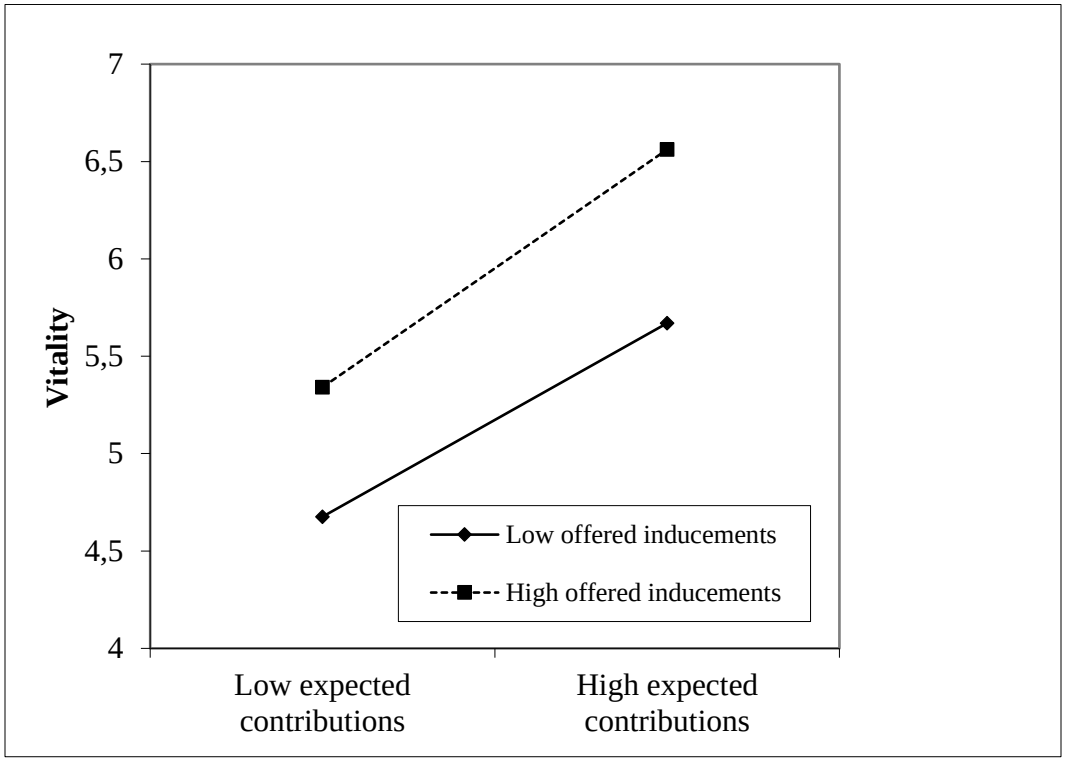
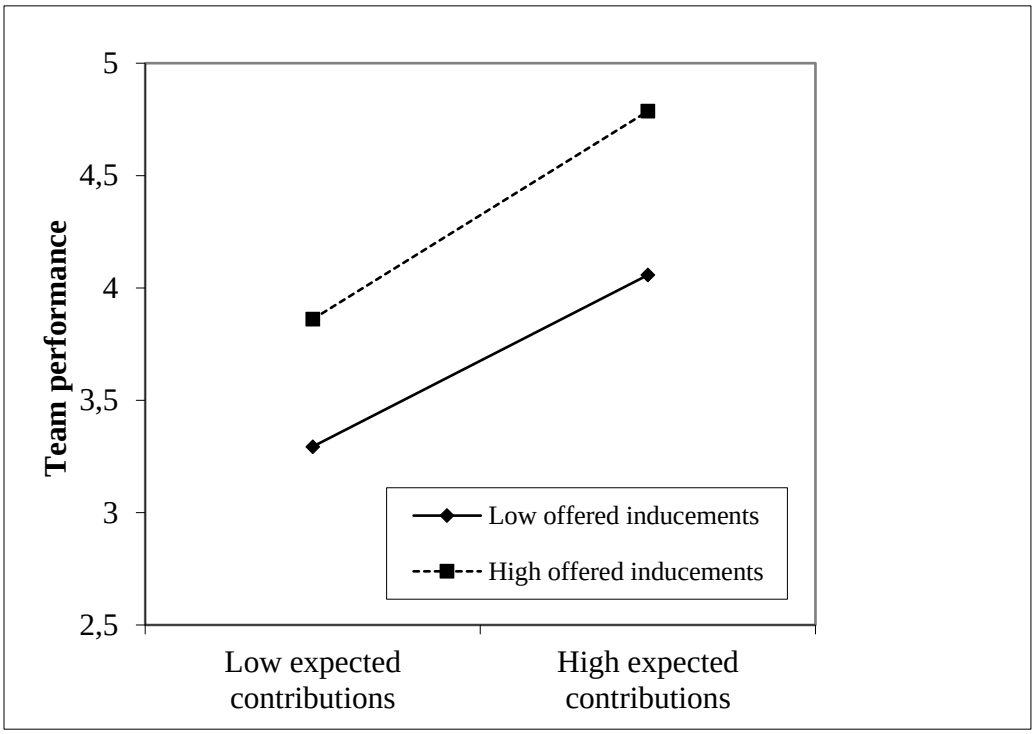


Figure 5.4. Cross-level interaction of offered inducements on the relationship between expected contributions and performance in team



5.5 Discussion

Performance management systems are about managing expected contributions through goal-setting, feedback and evaluation. Such expected contributions are theorized to influence employees' well-being, and ultimately, their performances (Den Hartog et al., 2004; Stiles et al., 1997). In this study, we used recent conceptualizations of job demands-resources theory to hypothesize that employees require a certain level of expected contributions to feel vitalized and collaborate in team, taking into account that there is also such a thing as too many expectations (non-linearity). We conceptualized expected contributions as individual goals and expectations placed on employees by leaders, and argued that such expected contributions have stronger relations with employees' well-being and performances, depending on the extent to which employees in the teams enjoy more offered inducements from their leader (i.e. more 'balanced'). In a sample of lecturers in Flemish university colleges, we found support for the majority of our hypotheses, with the exception of the non-linear effects of expected contributions. This suggests that leaders can manage employees' team performances by managing their vitality and balancing the interaction of offered inducements and expected contribution. Hereby, our study offers three main contributions to public HRM.

5.5.1 Theoretical implications

Coinciding with contextual approaches to HRM (Paauwe & Farndale, 2017), our first contribution concerns how employees perceive expected contributions in a public sector performance management context. Furthermore, how such perceptions come to affect their well-being and performance. In a sample of lecturers in public university colleges, we observed participants generally reported high expectations. This is in line with general assertions about HRM in public

organizations being increasingly performance-driven (Leisink & Knies, 2018), but also with specific observations about tense workloads in the higher education sector (Hasanefendic, 2018; Kyvik & Lepori, 2010). However, within teams, participants also perceived rather high levels of offered inducements in return. This runs counter to the idea that (immaterial) rewards are necessarily constrained in public organizations and, at first glance, does not correspond with heightened concerns over balanced employment relationships in the higher education sector (Devonport, Biscomb, & Lane, 2008). Rather, these observations lend support to Knies et al.'s (2015) assertion that HRM in public organizations, and in higher education institutions specifically, is often more demanding but at the same time also more developmental in its focus (Clerkin & Coggburn, 2012). Nevertheless, it is important to keep in mind that different configurations of expected contribution and offered inducements exist within the larger public sector (cf. Audenaert et al., 2019).

As a second contribution, our findings help the development of psychological perspective in public (human resource) management (Borst, 2018; Borst et al., forthcoming; Grimmelikhuijsen et al., 2016). First, by demonstrating the key mediating role of vitality, our study endorses vitality as an important dimension of work engagement. As a dynamic well-being concept from positive psychology, we assert vitality deserves its merit public HRM research (Ehnert et al., 2014; Tummers et al., 2016). Second, we underscore Bakker's (2015) claim that job demands-resources theory, a theory with its roots in organizational psychology, could be a valuable theoretical perspective in addressing the HRM-performance nexus in the public sector. To that end, we successfully linking public employees' perceptions of demands and resources to mutual gains between their well-being and performances in team (Guest, 2017; Van de Voorde et al., 2012). What is more, our data also supports recent conceptualizations of job-demands resources theory

that focus on positive effects of job demands, multilevel relations, as well as interactions and non-linear relations between job demands and job resources (Van den Broek et al., 2013). In this sense, our findings show that employees are vitalized and collaboratively motived by high expectations from their leaders. We found this association to be linear, while not excluding that after a certain threshold level, high expectations could effectively reduce other aspects of employees well-being and performance (cf. Pierce & Aguinis, 2013). High expectations signal to employees that they are valued and that leaders believe in their potential. Low expectations, on the other hand, have a less energizing and motivating potential. This suggests that certain job demands, like expected contributions, can also entail positive effects. This is even more the case when employees are part of teams with higher immaterial rewards, since individual-level expectations and team-level inducements interact across levels. In this sense, a unique contribution of our multilevel analysis is that expected contributions and offered inducements (and hence job demands and job resources) not only interact with each other, but can also operate at different levels. From a theoretical viewpoint, this supports the idea that different HRM practices in an organizational unit do not always operate in isolation (Jiang, Lepak, Han, Hong, Kim, & Winkler, 2012) or function at the same level of analysis (Peccei & Van de Voorde, 2019).

A final contribution is that we focused on expected contributions and offered inducements set by or offered by leaders, presenting itself as a more informal approach to leadership and leader behavior (Audenaert et al., 2016). Hereby, we contribute to research on team effectiveness in the public sector (Van der Hoeck et al., 2018; Van Thielen et al., 2018), which is still very much concerned with formal leadership and team composition issues (Mathieu et al., 2008). In our analyses we did control for composition issues as size, gender and educational domain, but found these effects to be small or non-significant.

5.5.1 Practical implications

Our study suggests that leaders in university colleges, and in extension the broader public sector, should carefully balance offered inducements and expected contributions. In this sense, high combinations of expected contributions and high offered inducements are generally more advantageous. This is not only true for individual employees, but also for employees in team, since the HRM practices that can interact with each other to affect employees' well-being and team performances. In this sense, job demands-resources theory offers line managers in public organizations a practical tool to create healthy work environments, since it considers employees' well-being and performance as an interaction of expectations and rewards or inducements, guiding the development of more effective interventions (Bakker & Demerouti, 2017). From a practical point of view, the concept of vitality can also be relevant to HRM and leaders in the public sector, as scholars suggest it could be used as a metric of well-being in developing sustainable HRM strategies (Ehnert et al., 2014).

5.5.2 Limitations

Our study is limited in three respects. First, when the contextualization of HRM increases, generalizability needs to proceed with more caution (Paauwe & Farndale, 2017). Our sample of lecturers in public university colleges is not representative for the Belgian and Flemish sector. Moreover, data was cross-sectional, while research points out that teams are temporally dynamic entities (Mathieu et al., 2008) and, as reforms have shown, expectations and inducements are not invariant across time (Audenaert et al., 2019). Hence, we welcome studies employing time-series data on offered inducements and expected contributions in broader public sector samples. The strength of our data collection lies in its sectoral homogeneity, which allows to account for spurious

relationships that typically emerge in studies with broader team samples (Richter et al., 2011; Van der Hoek et al., 2018). In addition, we could obtain data from almost every public university college in Flanders and from teams / programmes in broad educational domains. Second, there are indications that individual reports of job demands and job resources affect higher-order team-level outcomes (Torrente et al., 2012). Nevertheless, authors like Boyle and Aguinis (2012) argue that is important to keep team perceptions at the individual level, as aggregated team measures can camouflage large discrepancies in performance between team members. Finally, despite our best efforts to mitigate CSB before and after the data collection, our measurements might still show some bias, due to the use of single-survey data. Nevertheless, it has been suggested that the presence of interaction effects strongly reduces this probability (George & Pandey, 2017). While team members are themselves considered the best information source of their team performance (Van der Hoek et al., 2018), future research could overcome such potential issues by collecting data from multiple-informants.

5.6 Conclusion

In a performance management context, there should ideally be a balance between employees' goals and expectations (i.e. expected contributions) and the rewards they receive in return (i.e. offered inducements), as this balance could influence employees' well-being, and ultimately, their performances (Den Hartog et al., 2004; Stiles et al., 1997). Our findings from lecturers in university colleges in Flanders show that expected contributions positively and linearly predicted team performance, mediated by vitality. This mediation was stronger when employees perceived more offered inducements. This suggests that leaders can manage employees' team performances by managing their vitality and balancing the interaction of offered inducements and expected

contribution. Hereby, leaders can apply job demands-resources theory as a practical tool to create healthy and effective work environments for teams. Overall, our study contributes to contextual HRM and building a psychological perspective public (human resource) management. Future research could extend the current design with longitudinal and multi-informant data to enable a holistic and temporal understanding of employment relationships, well-being and performances.

5.7 References

Audenaert, M., Carette, P., Shore, L. M., Lange, T., Van Waeyenberg, T., & Decramer, A. (2018). Leader-employee congruence of expected contributions in the employee-organization relationship. *The Leadership Quarterly*, *29*(3), 414-422.

Audenaert, M., Decramer, A., Lange, T. & Vanderstraeten, A. (2016) Setting high expectations is not enough: linkages between Expectations Climate Strength, Trust, and Employee Performance. *International Journal of Manpower*, *37*(6), 1024-1041.

Audenaert, M., George, B., & Decramer, A. (2019). How a demanding employment relationship relates to affective commitment in public organizations: A multilevel analysis. *Public Administration*, *97*(1), 11-27.

Audenaert, M., Vanderstraeten, A., & Buyens, D. (2017). When affective well-being is empowered: The joint role of leader-member exchange and the employment relationship. *The International Journal of Human Resource Management*, *28*(15), 2208-2227.

Bach, S., & Bordogna, L. (2011). Varieties of new public management or alternative models? The reform of public service employment relations in industrialized democracies. *The International Journal of Human Resource Management*, *22*(11), 2281-2294.

Bakker A. (2015). A job demands-resources approach to public service motivation. *Public Administration Review*, *75*(5), 723-732.

Bakker, A., & Demerouti, E. (2017). Job demands–resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, *22*(3), 273-285.

Borst, R. T. (2018). Comparing work engagement in people-changing and people-processing service providers: A mediation model with red tape, autonomy, dimensions of PSM, and performance. *Public Personnel Management*, *47*(3): 287-313.

Borst, R. T., Kruyen, P. M., & Lako, C. J. (forthcoming). Exploring the Job Demands–Resources Model of Work Engagement in Government: Bringing in a Psychological Perspective. *Review of Public Personnel Administration.*

Boyle, E. & Aguinis, H. (2012). The best and the rest: Revisiting the norm of normality of individual performance. *Personnel Psychology*, *65*(1), 79-119.

Brislin, R. (1990). *Applied cross-cultural psychology*. Newbury Park, CA: Sage.

Carmeli A. (2009). Positive work relationships, vitality, and job performance. In N. Ashkanasy, W. Zerbe, C. Härtel (Eds.), *Research on emotions in organizations*, (pp. 45-71). Bingley, UK: Emerald Publishing Limited.

Clerkin, R., & Coggburn, J. (2012). The dimensions of public service motivation and sector work preferences. *Review of Public Personnel Administration*, *32*(3), 209-235.

Crawford, E., LePine, J., & Rich, B. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology*, *95*(5), 834-848.

Currie, G., & Procter, S. (2003). The interaction of human resource policies and practices with the implementation of teamworking: Evidence from the UK public sector. The International Journal of Human Resource Management, *14*(4), 581-599.

Decramer, A., Smolders, C., Vanderstraeten, A., Christiaens, J., & Desmidt, S. (2012). External pressures affecting the adoption of employee performance management in higher education institutions. *Personnel Review, 41*(6), 686-704.

Diefenbach, T. (2009). New public management in public sector organizations: the dark sides of managerialistic 'enlightenment'. *Public Administration, 87*(4), 892-909.

Ehnert, I, Harry, W., & Zink, K. (2014). *Sustainability and Human Resource Management*. Heidelberg, Germany: Springer.

Edwards, J., & Lambert, L. (2007). Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychological Methods*, *12*(1), 1-22.

Eldor, L. & Vigoda-Gadot, E. (2017). The nature of employee engagement: Rethinking the employee–organization relationship, *The International Journal of Human Resource Management*, *28*(3), 526-552.

Flemish Government. (2013). *Besluit van de Vlaamse Regering tot Codificatie van de Decretale Bepalingen Betreffende het Hoger Onderwijs* [Decree of the Flemish Government Codifying Decreed Provisions Concerning Higher Education]. http://data-onderwijs.vlaanderen.be /edulex/document.aspx?docid=1465.

Franco-Santos, M., & Doherty, N. (2017). Performance management and well-being: A close look at the changing nature of the UK higher education workplace. *The International Journal of Human Resource Management*, *28*(16), 2319-235.

Füllemann, D., Brauchli, R., Jenny, G. J., & Bauer, G. F. (2016). Individual and group-level job resources and their relationships with individual work engagement. *Journal of Occupational Health, 58*(3), 255-268.

George, B., & Pandey, S. (2017). We know the Yin- But where is the Yang? Toward a balanced approach on common source bias in public administration scholarship *Review of Public Personnel Administration*, *37*(2), 245-27.

Guest, D. (2017). Human resource management and employee well-being: Towards a new analytic framework. *Human Resource Management Journal*, *27*(1), 22-38.

Grimmelikhuijsen, S., Jilke, S., Olsen, A. L., & Tummers, L. (2017). Behavioral public administration: Combining insights from public administration and psychology. *Public Administration Review*, 77(1), 45-56.

Hasanefendic, S. (2018). *Responding to new policy demands: A comparative study of Portuguese and Dutch non-university higher education organizations* (doctoral dissertation). Free University of Amsterdam, The Netherlands.

Henderson, D. J., Liden, R. C., Glibkowski, B. C., & Chaudhry, A. (2009). LMX differentiation: A multilevel review and examination of its antecedents and outcomes. *The Leadership Quarterly*, *20*(4), 517-534.

Hox, J. (2010). *Multilevel analysis: Techniques and applications*. London, U.K.: Routledge.

Hu, Q., Schaufeli, W., & Taris, T. (2011). The job demands-resources model: An analysis of additive and joint effects of demands and resources. *Journal of Vocational Behavior*, *79*(1), 181–19.

Jia, L., Shaw, J., Tsui, A., & Park, T. (2014). A social–structural perspective on employee–organization relationships and team creativity. *Academy of Management Journal*, *57*(3), 869-891.

Jiang, K., Lepak, D., Han, K., Hong, Y., Kim, A., & Winkler, A. (2012). Clarifying the construct of human resource systems: Relating human resource management to employee performance. *Human Resource Management Review*, *22*(2), 73-85.

Kalleberg, A. (2000). Nonstandard employment relations: Part-time, temporary and contract work. *Annual Review of Sociology, 26*(1), 341-365.

Kline, R. (2011). *Principles and practice of structural equation modeling*. New York, NY: Guildford press.

Knies, E, Boselie, P, Gould-Williams, J, Vandenabeele, W (2015). Strategic human resource management and public sector performance: Context matters. *The International Journal of Human Resource Management, 26*(3): 421–424.

Koeslag-Kreunen, M., Van der Klink, M., Van den Bossche, P., & Gijselaers, W. (2018). Leadership for team learning: The case of university teacher teams. *Higher Education, 75*(2), 191-207.

Kuipers, B., & De Witte, M. (2005). Teamwork: A case study on development and performance. *The International Journal of Human Resource Management, 16*(2), 185-201.

Kyvik, S. & Lepori, B. *The Research Mission of Higher Education Institutions outside the University Sector*. Dordrecht, The Netherlands: Springer.

LeBreton, J. M., & Senter, J. L. (2008). Answers to 20 questions about interrater reliability and interrater agreement. *Organizational Research Methods*, 11(4), 815-852.

Leisink, P., & Knies, E. (2018). Public personnel reforms and public sector HRM in Europe. In E. Ongaro, & S. Van Thiel (Eds.), *The Palgrave handbook of public administration and management in Europe*, (pp. 243-259). London, UK: Palgrave Macmillan.

Mathieu, J., Maynard, M., Rapp, T., & Gilson, L. (2008). Team Effectiveness 1997-2007: A Review of Recent Advancements and a Glimpse Into the Future, Journal of Management, 34(3), 410-476.

Paauwe, J. & Farndale, E. (2017). *Strategy, HRM and performance: A contextual approach.* Oxford, U.K.: Oxford University Press.

Peccei, R., & Van De Voorde, K. (2019). The application of the multilevel paradigm in human resource management–outcomes research: Taking stock and going forward. *Journal of Management*, 45(2), 786-818.

Pierce, J. R., & Aguinis, H. (2013). The too-much-of-a-good-thing effect in management. *Journal of Management*, *39*(2), 313-338.

Pinheiro, J., Bates, D., DebRoy, S., and Sarkar, D. (2017). *Package 'nlme': Linear and Nonlinear Mixed Effects Models.*

Podsakoff, P., MacKenzie, S., & Podsakoff, N. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, *63*(1), 539–569.

Preacher, K., & Selig, J. (2012). Advantages of Monte Carlo confidence intervals for indirect effects. *Communication Methods and Measures*, *6*(2), 77-98.

Rainey, H. (2009). *Understanding and managing public organizations*. San Francisco, CA: John Wiley & Sons.

Richter, A., Dawson, J., & West, M. (2011). The effectiveness of teams in organizations: A meta-analysis. *The International Journal of Human Resource Management*, *22*(13), 2749-2769.

Ryan, R., & Frederick, C. (1997). On energy, personality and health: Subjective vitality as a dynamic reflection of well-being. *Journal of Personality*, *65*(3), 529-565.

Muthén, B., & Satorra, A. (1995). Complex sample data in structural equation modeling. *Sociological Methodology*, *25*(1), 267-316.

Schaufeli, W., Bakker, A., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement*, *66*(4), 701-716.

Shaw, J., Dineen, B., Fang, R., & Vellella, R. (2009). Employee-organization exchange relationships, HRM practices, and quit rates of good and poor performers. *Academy of Management Journal, 52*(5), 1016–1033.

Shieh, G. (2016). Choosing the best index for the average score intraclass correlation coefficient. *Behavior Research Methods*, *48*(3), 994-1003.

Stensaker, B., & Benner, M. (2013). Doomed to be entrepreneurial: Institutional transformation or institutional lock-ins of 'new' universities? *Minerva*, *51*(4), 399-416.

Stiles, P., Gratton, L., Truss, C., Hope-Hailey, V., & McGovern, P. (1997). Performance management and the psychological contract. *Human Resource Management Journal, 7*(1), 57-66.

Snijders, T., & Bosker, R. (2012). *Multilevel analysis: An introduction to basic and advanced multilevel modeling*. Thousand Oaks, CA: Sage Publications.

Torrente, P., Salanova, M., Llorens, S., & Schaufeli, W. (2012). Teams make it work: How team work engagement mediates between social resources and performance in teams. *Psicothema, 24*(1), 106-122.

Tsui, A., Pearce, J., Porter, L., & Tripoli, A. (1997). Alternative approaches to the employee-organization relationship: Does investment in employees pay off? *The Academy of Management Journal, 40*(5), 1089-1121.

Tummers, L., Kruyen, P., Vijverberg, D., & Voesenek, T. (2015). Connecting HRM and change management: The importance of proactivity and vitality. *Journal of Organizational Change Management, 28*(4), 627-64.

Tummers, L., Steijn, B., Nevicka, B., & Heerema, M. (2018). The effects of leadership and job autonomy on vitality: Survey and experimental evidence. *Review of Public Personnel Administration, 38*(3), 355-377.

Van De Voorde, K., Paauwe, J., & Van Veldhoven, M. (2012). Employee well-being and the HRM–organizational performance relationship: A review of quantitative studies. *International Journal of Management Reviews*, 14(4), 391-407.

Van den Broeck, A., Van Ruysseveldt, J., Vanbelle, E., & De Witte, H. (2013). The job demands–resources model: Overview and suggestions for future research. In A. Bakker (Ed.), *Advances in positive organizational psychology* (pp. 83-105). Bingley, U.K.: Emerald Publishing Limited.

Van der Hoek, M., Groeneveld, S., & Kuipers, B. (2018). Goal setting in teams: Goal clarity and team performance in the public sector. *Review of Public Personnel Administration*, *38*(4), 472-493.

Van Dooren, W., Bouckaert, G., & Halligan, J. (2015). *Performance management in the public sector*. London, U.K.: Routledge.

Van Thielen, T., Decramer, A., Vanderstraeten, A., & Audenaert, M. (2018). When does performance management foster team effectiveness? A mixed-method field study on the influence of environmental extremity. *Journal of Organizational Behavior, 39*(6), 766-782.

Verhoeven, J. (2010). Academic middle managers and management in university colleges and universities in Belgium. In L. Meek, L. Goedegebuure, T. Carvalho, & R. Santiago. (Eds.), *The changing dynamics of higher education middle management*, (pp. 55-81). Dordrecht, The Netherlands: Springer.

Welbourne, T., Johnson, D. & Erez, A. (1998). The role-based performance scale: Validity analysis of a theory-based measure. *Academy of Management Journal, 41*(5), 540-555.

Zhang, A., Song, L., Tsui, A., & Fu, P. (2014). Employee responses to employment-relationship practices: The role of psychological empowerment and traditionality. *Journal of Organizational Behavior, 35*(6), 809-83.

CHAPTER VI:

General Discussion and Conclusion

Strategic human resource management (HRM) has become a key priority for higher education institutions, against the backdrop of complex challenges like democratization, marketization and public accountability. Inpired by HRM in private organizations, and reinforced by New Public Management reforms, performance management systems have emerged as potentially advantageous approaches to manage academic staff in higher education institutions(Melo, Sarrico, & Radnor, 2010; Van den Brink, Fruytier, & Thunnissen, 2012). However, the adoption of performance management systems in higher education institutions has been observed to frequently result in unintended effects on academic employees' well-being and performances (Decramer, Smolders, & Vanderstraeten, 2013; Franco-Santos & Doherty, 2017). In an attempt to address such issues, the present dissertation sought to examine under which conditions of implementation and leadership performance management systems yield positive outcomes on the well-being and performance of academic employees in higher education institutions (i.e. success conditions). To that end, a fivefold theoretical framework was proposed and put to the test. The results are summarized in Table 6.1 and generally support the theoretical framework and its corresponding hypotheses, offering empirical support for success conditions for performance management systems in higher education institutions and contributing to contextual HRM (Paauwe & Farndale, 2017), as well as broader debates on performance management effectiveness (Schleicher et al., 2018). In what follows, we provide an overview of the theoretical implications (6.1) and limitations (6.2). Subsequently, formulate suggestions for the way ahead (6.3) and provide some practical suggestions for leaders in higher education institutions and other public organizations (6.4). We end this dissertation with some concluding remarks (6.5)

Table 6.1. Key findings of the chapters

Chapter	Findings
II	Performance management distributive fairness is negatively related to burnout (emotional exhaustion and disengagement from work). Performance management procedural fairness is not related to burnout (emotional exhaustion and disengagement from work). Performance management interactional fairness is negatively related to disengagement from work, but unrelated to emotional exhaustion. Performance management fairness dimensions are not directly related to OCB. Disengagement from work mediates the relationship between performance management distributive fairness and OCB (full mediation). Disengagement from work mediates the relationship between performance management interactional fairness and OCB (full mediation). Emotional exhaustion does not mediate between performance management fairness dimensions and OCB. As an informal leadership dimension, performance management interactional fairness has the strongest relationships of the fairness dimensions. Performance management distributive and interactional fairness show mutual gains: they reduce burnout (=positive well-being effect) and hereby increase OCB (= positive performance effect).
III	Performance management consistency is positively related to perceived societal impact. Performance management consistency is positively related to job satisfaction. Perceived societal impact mediates the relationship between performance management consistency and job satisfaction (partial mediation). LMX is positively related to perceived societal impact and job satisfaction. LMX positively moderates the relationship between performance management consistency and perceived societal impact. LMX does not positively moderate the relationship between performance management consistency and job satisfaction. Instead, LMX negatively moderates this relation. LMX moderates the mediation of perceived societal impact between performance management consistency and employees' job satisfaction. The mediated relationship is stronger when LMX are higher (moderated mediation).

IV	Performance management distinctiveness is unrelated to IWB. Performance management consistency is positively related to IWB. Transformational leadership is positively related to IWB. Transformational leadership does not positively moderate the relationship between performance management distinctiveness and IWB. Instead, it negatively moderates this relation. Transformational leadership positively moderates the relationship between performance management consistent and IWB.
V	Expected contributions are positively related to employee vitality. This relationship is non-linear, but not when the moderation of offered inducements is taken into account. Expected contributions are positively related to team performance. This relationship is linear. Employee vitality mediates the relationship between expected contributions and team performance (partial mediation). Offered inducements are unrelated to vitality and team performance. Offered inducements moderates the mediation of vitality in the relationship between expected contributions and team performance. The mediated relationship is stronger when offered inducements are higher (moderated mediation). Expected contributions shows mutual gains: they increase vitality (= positive well-being effect) and team performance (= positive performance effect).

6.1 Implications for theory and research

In helicopter perspective, this dissertation wishes to address four important shortcomings of current research on performance management systems, and their scholarship in higher education institutions specifically: (1) the scarcity of knowledge on the success conditions of performance management systems in the context of higher education; (2) the disconnection between studies on performance management systems and those of leadership; (3) a lack of attention to the diverse aspects of (academic) employees' well-being and performances, as well as (4) a need to connect insights from different research traditions.

6.1.1 What are success conditions of performance management systems in higher education institutions?

The results of this dissertation empirically underpin **four success conditions** of performance management systems in higher education institutions: *performance management distributive fairness, performance management interactional fairness* (Chapter II), *performance management consistency* (Chapter III, IV) and *high expected contributions combined with high offered inducements* (Chapter V). Academic employees in higher education institutions are healthy and performant when they perceive performance management systems as (1) providing in fair and (2) balanced expectations, combined with (3) seeing those aspects consistently applied with a correct treatment and sufficient information from one's leader. Hence, our results suggest that successful performance management systems in higher education could be those that combine fairness with balance and coherence.

We found no support for beneficial effects of procedural fairness (Chapter II), performance management distinctiveness (Chapter IV) or direct effects of offered inducements (Chapter V). In the case of procedural fairness, it was judged that academic employees are more concerned with aspects of performance management that are closer to their day-to-day work experiences (i.e. rewards and interpersonal treatment), rather than formal procedures and technicalities.

Concerning performance management distinctiveness, we suspect insignificant effects were due to the outcome under study, innovative work behavior. Following the traditional interpretation of goal-setting theory (Latham, Borgogni, & Petitta, 2008), clearly demarcated goals and expectations are less suited for innovative or proactive performances, as such behaviors typically thrive under ambiguity. Nevertheless, we assert innovation is an important aspect of employment in knowledge-intensive public sector organizations, like higher education institutions (Bos-Nehles, Bondarouk,

& Nijenhuis, 2017; Rowley, 2000). As such, it might be possible that distinctive performance management systems are generally less effective in higher education institutions.

Significant effects were also absent for direct relations of offered inducements, although offered inducements strengthened the effects of expected contributions (Chapter V). This is noteworthy because together with the significant effects for distributive fairness, it shows the **specificity of rewards in the higher education context**. Both distributive fairness and offered inducements are concerned with rewards in higher education institutions, but in two different respects. Offered inducements refers to the *absolute amount* of (im)material rewards, while offered inducements refer to their *relative amount* (relative amount/perceived input). In the Flemish higher education context, differential material rewards are restricted for academic employees with the same function and tenure (i.e. no pay-for-performance). Hence, in operationalizing rewards, immaterial rewards served as a focal point (e.g. recognition, training, growth opportunities) and offered inducements were clustered to a higher level of analysis. Nevertheless, we find that academic employees' well-being and performances are affected by relative amounts (Chapter II), rather absolute amounts (Chapter V).

Notwithstanding our focus on immaterial rewards, our results bear important similarities to observations among **other types of knowledge workers** that are confronted with differential material rewards, for example researchers in research and development facilities (R&D). In environments were performance management systems are coupled to material reward systems, scholars assert consistency, leadership, and fairness especially, also constitute important success conditions for employees' well-being and performance (Aguinis, Joo, & Gottfredson, 2013; Welpe, Wollersheim, Ringelhan, & Osterloh 2015). That we make similar observations in an environment where material rewards are less salient could be due to material rewards in a performance

management system providing performance benefits, but only to a limited extent. The advantages of differential material rewards in knowledge-intensive organizations are, to a certain extent, constrained as they also hinder learning opportunities and employee development (Aguinis et al., 2013; Markova & Ford, 2011). Overall, this is in line with Shipton et al.'s (2010) assertion that different professionals in knowledge-intensive industries hold comparable expectations towards performance management systems, because they share a sense of intrinsic motivation and engage in similar types of complex and unstandardized tasks that require creativity and innovation, are difficult to measure and are largely immune to market forces (Welpe et al., 2015).

On a theoretical level, the findings above endorse job demands-resources theory (Bakker & Demerouti, 2014) and organizational justice theory (Greenberg, 1987) as explanatory lenses to look at performance management systems' effectiveness in higher education institutions. At their core, both theories underscore the importance of a **relative balance** between what is demanded of academic employees and the rewards at their disposal. In addition, the findings on performance management consistency, distinctiveness and expected contributions certify signal theory (Spence, 1978) and goal-setting theory (Latham et al., 2008), by demonstrating that the motivating potential of goals and expectations is improved by combining ambitious goals and expectations with coherent enforcement. Goals and expectations meeting these criteria have a strong **demonstration value** to academic employees: they provide continuity, signal to employees that they are valued and clarify the intentions behind these goals and expectations. In their totality, these findings offer valuable insights to the **systems perspective** on performance management effectiveness (Schleicher et al., 2018), by offering empirical evidence on the validity of particular success conditions (i.e. distributive fairness, interactional fairness, consistency, balanced employment relationships) for particular outcomes (burnout, organizational citizenship behavior, perceived

societal impact, job satisfaction, innovative work behavior, vitality, team performance) in a particular context (i.e. higher education institutions).

Nevertheless the systems approach (and our contribution to it), two critical remarks are appropriate. First, it is important to take into account that what constitutes a success condition, might depend on which aspects of academic employees' well-being and performances higher education institutions wish to stimulate. An illustration in this dissertation is that distinctive performance management systems might not be appropriate to stimulate innovation (Chapter IV). Second, recent advancement parallel with this dissertation (e.g., Matta, Scott, Colquitt, Koopman, & Passantino, 2017; Ostroff & Bowen, 2016) point to a more complex reality in which different success conditions might predict or interact with each other. To that end, future research on performance management systems in higher education institutions could focus on more complex relations between success conditions by means of moderations and mediations.

6.1.2 What constitutes 'effective leadership' to support performance management implementation in higher education institutions?

What clearly emerges from our empirical observations is the **key role of leaders** in facilitating successful performance management systems, endorsing Campbell et al.'s (2016, p. 795) notion that leaders "may be an important factor in determining whether public organizations can reap the benefits of performance management [systems]". This particularly applies to academic leaders that are responsible for performance management implementation, but also bears implications for leaders fulfilling a similar role in the broader public sector. We found that leaders are both supporters of performance management success conditions (i.e. moderating influences: Chapter III, IV, V) and direct success conditions in themselves (i.e. direct effects: Chapter III, V). These

results apply to more formal aspects of leadership and leader behavior, like transformational leadership and intensity of expectations and inducements (Chapter IV, V). However, they also apply to more informal and relational aspects of leadership and leader behavior, like leader-member exchange (LMX) and interactional fairness (Chapter II, III). What is more, we found the effects of leaders and leadership to be generally strong, which is in line with earlier observations on the interplay of leaders and performance management systems in other public contexts like elderly care and local governments (e.g., Audenaert, Decramer, George, Verschuere, & Van Waeyenberg, 2019; Moynihan, Pandey, & Wright, 2012).

These strong leader effects lead us to the following question: **can leaders replace performance management systems?** The answer to that question is not a straightforward one. On the one hand, our analyses show that the relative importance of leadership and performance management systems depends on the outcome under study. For a job-related performance, like innovative work behavior, the performance management system was more influential than the leader (Chapter IV). For a non job-related performance like organizational citizenship behavior, the reverse pattern emerged (Chapter II). For well-being, the performance management system was more influential than the leader for job satisfaction and less influential for perceived societal impact (Chapter III). One the other hand terms, the general pattern across studies seems to be that the performance management system remains the dominant influence in terms of average effect size, with leaders as a close second. In this sense, leaders cannot simply replace performance management systems. However, more important than to focus on their separate effects is to focus on their joint or synergistic effects. To that end, the significant interaction effects in our studies (Chapter III-IV) demonstrate that taken together, leaders and performance management systems are more effective than the sum of their parts.

However, there is an important disclaimer: **leaders should not be regarded as a panacea** for unsuccessful performance management systems. Instead, our observation of leaders' interaction with performance management success conditions also seems to suggest a more complex interplay. For example, transformational leadership strengthened the relationship of performance management consistency with innovative work behavior, but it was also less effective in the presence of a distinctive performance management system (Chapter IV). Similarly, LMX reinforced the relationship between performance management consistency and perceived societal impact, but it also diminished the latter's relationship with job satisfaction (Chapter III). Such observations yield two potential implications. A first implication is that leaders' influence could be dependent on the amount of leeway performance management systems allow them. When the totality of the performance management process is set in stone, leaders have little degrees of freedom to make a difference. A second implication is that the supporting role of leaders in performance management implementation is not a universal truth, but could depend on the success condition and outcomes at stake. This necessitates more research on which combinations of leadership styles and success conditions work best for which particular outcomes.

Overall, our findings indicate that leadership matters for successful performance management systems, although leaders' interplay with performance management systems might be more complex than initially thought. In this sense, the whole might be more than the sum of the parts. This complex interplay of leadership and performance management systems endorses **people management** as a theoretical framework (Knies & Leisink, 2018; 2014), also in the higher education context. It also follows recent studies advocating that performance management systems and leadership should not be regarded as separate phenomena, but integrated in their scholarship (Leroy, Segers, Van Dierendonck, & Den Hartog, 2018; Tseng & Levy, forthcoming). After all,

performance management systems do not operate in a social vacuum (Van Waeyenberg, 2018). To employees, performance management systems and leadership are often *different aspects of the same working experience*. Likewise, leadership could be a lens through which employees view and evaluate performance management systems and other HRM arrangements (Bos-Nehles & Audenaert, forthcoming).

That leaders are important facilitators in performance management systems is promising. However, it is also concerning, giving that academic leaders, as a kind of 'public executives' are not always trained or developed in performance management tasks or other HRM responsibilities (Bos-Nehles, Van Riemsdijk, & Looise, 2013; George, Van de Walle, & Hammerschmid, 2019). Therefore, future scholarship could take into account how leaders' abilities, motivation and opportunities interact with different success conditions of performance management systems in higher education institutions (cf. Van Waeyenberg & Decramer, forthcoming).

6.1.3 How do performance management systems relate to the diverse dimensions of academic employees' well-being and performance?

The results of this dissertation support the meaning and relevance of an **employee perspective** on performance management systems in higher education. We observe that how academic employees perceive performance management systems to be implemented directly affects their well-being and performances. Hereby, this dissertations corroborates and expands existing research on performance management perceptions (Sella & Sowa, 2011; Sharma, Sharma & Agarwal, 2016) and those in higher education specifically (Franco-Santos & Doherty, 2017; Jacobsen & Andersen, 2014). The general pattern in our observations seems to be that performance management systems have positive synergies with both employees' well-being and performances. In particular when

employees perceive these systems as fair, coherent and balanced (see 6.1.1). Therefore, the findings of this dissertation resonate with the **mutual gains perspective** in HRM and extend it to performance management systems in higher education institutions (Van de Voorde, Paauwe, & Van Veldhoven, 2012). We found that academic employees' perceptions of performance management systems stimulated all three dimensions of well-being: *social well-being* (perceived societal impact; Chapter III), *happiness well-being* (job satisfaction, vitality; Chapters III and V)a and, rather surprisingly, also *health well-being* (burnout; Chapter II),. In line with earlier studies among non-professioral higher education staff in Flanders (KU Leuven, 2015; Levecque, Anseel, De Beuckelaer, Van der Heyden, & Gisle, 2017; Levecque, Baute, & Anseel, 2013), we found high scores for both happiness well-being (i.e. job satisfaction, Chapter III) and negative health-wellbeing (Chapter II). Certain dimensions of social and happiness well-being were also found to be interrelated (perceived societal impact and job satisfaction; Chapter III).

At the same time, perceptions of performance management systems also maintained positive relations with academic employees' *job-related performance* (innovation, team performance; Chapters IV and V) and *non-job related performance* (organizational citizenship behavior; Chapter II). What is more, performance management systems affected such performances via academic employees' well-being through either full (Chapter II) or partial mediation (Chapter III).

In other words, a happy academic employee seems to be a productive academic employee. Well-designed performance management systems can make academic employees more productive, by benefitting their well-being (Biron, Farndale, & Paauwe, 2011; Levy, Tseng, Rosen & Lueke, 2017). Such findings contrast with the dysfunctional effects of performance management systems as described in higher education literature (e.g., Barkhuizen, Rothmann, & Van De Vijver, 2014; Kallio, Kallio, Tienari, & Hyvönen, 2016; Franco-Santos & Doherty, 2017). However, it is

important to remain critical. The main message is that academic employees' personal perceptions of performance management are a force to be reckoned with in striving for healthy and performant academic employees (Jacobsen & Andersen, 2014). As a result, higher education institutions need to be aware of academic employees' perceptions of performance management systems and seek effective ways to manage such perceptions. After all, it is largely through such perceptions that performance management systems obtain their desired effects (Schleicher et al., 2018; Sharma et al., 2016).

6.1.4 How can we (further) contribute to the development of a middle range theory, bridging different research traditions in the study of performance management systems, leadership, well-being and performance?

At its offspring, this dissertation declared its ambitious intention to develop a middle range theory of performance management implementation in higher education institutions. We envisioned such a theory to have an empirical foundation and draw on combined insights from HRM, public management and studies in higher education. Following Whetten (1989), every successful theory answers **four essential questions**: what, how, why and who. We use this section to evaluate our contribution and how future theoretical development could progress in these respects.

The **what-question** is concerned with the variables that explain the phenomenon of interest. In line with a systems perspective to performance management systems, we proposed success conditions as explanatory factors for the effects of performance management systems in higher education institutions. We contributed to this part of theory development by proposing a five-fold framework (five conditions, thirteen meta-conditions), building on previous HRM scholarship. We found empirical support for four conditions: *consistency*, *consensus* (distributive and interactional

fairness), *balanced employment relationships* (expected contributions versus offered inducements) and especially *leadership* (leader-member exchange and transformational leadership). Nevertheless, we remain critical. Mapping the success conditions for performance management systems in higher education institutions is still in progress. Parallel with this dissertation, Scheicher and her research team (2018) conducted a comprehensive review of almost two decades on performance management success conditions and revealed a list of more than 121 success conditions[5] and more fine-grained meta-conditions. Schleicher et al.'s (2018) review has two implications for the study of performance management in higher education institutions. First, it demonstrates that a lot of expertise concerning performance management success conditions is still concentrated in HRM literature. This is not surprising, given the popularity of the systems perspective in this particular field (Boon, Den Hartog, & Lepak, forthcoming). Second, the vastness of Schleicher et al.'s (2018) taxonomy illustrates the potential for future research. Prospective studies should continue the expansion of the systems perspective to higher education institutions, testing whether these success conditions are also successful in the context higher education institutions (and in extension other public organizations). In doing, a hurdle for future research will be to find a relative balance between *comprehensiveness* (i.e. including the relevant success conditions) and *parsimony* (i.e. clustering success conditions where possible or necessary) (Whetten, 1989).

The **how-question** deals with causal relations between the identified variables. In this dissertation, we observed that success conditions of performance management systems had *mutual gains* with academic employees' well-being and performance. However, we caution that this pattern might be

[5] The large number of success conditions in the study by Schleicher et al. (2018) is due to a broad definition of success conditions (e.g. gender of the employee and supervisor are also seen as success conditions).

different for differential well-being and performance outcomes. At the same time, there are indications that more complex relations between success factors and outcome variables might exist (cf. Matta et al., 2017; Ostroff & Bowen, 2016). Trickier is establishing causality. The cross-sectional data gathered in this dissertation gives a general indication of the relations between the variables, but such data does not provide the luxury of establishing causality. To that end, the present dissertation has helped to initiate the development of experiments and vignette studies that incorporate performance management conditions (Chapter III), responding to earlier call to do so (Van Waeyenberg & Decramer, forthcoming). First, such experimental are studies better suited to establish causal relations. Second, experimental studies on performance management systems can help to bridge the gaps between HRM and public management, by combining insights from both traditions in a **behavioral public HRM** approach (cf. Cantarelli, Belle, & Belardinelli, forthcoming).

The **why-question** is concerned with the assumptions that underlay the theoretical relations between performance management conditions and their outcomes. This dissertation followed the dominant **employee perspective** in performance management research, which states that performance management systems obtain their desired effects through employees' perceptions of these systems (Schleicher et al., 2018; Sharma et al., 2016). Such an approach takes its inspiration from the **HRM value chain**, which sees employees' perceptions as a crucial link between performance management systems as intended by organizations, and ultimately organizational performance (Wright & Nishii, 2013, see also 1.1.2). The empirical findings of this dissertation seem to underpin this theoretical explanation by demonstrating that how employees perceive, interpret and experience performance management systems in their day-to-day working lives is directly linked to their well-being and performances. This implies that as formal systems,

successful performance management systems in higher education institutions depend on informal processes between academic leaders and their employees. Managing employees' perceptions is central to this informal process (Jacobsen & Andersen, 2014; Selden & Sowa, 2011). By focusing on perceptions, HRM can also connect with recent developments in public management, where there is increasing attention for micro-level psychological phenomena. (Grimmelikshuijsen, Jilke, Olsen, & Tummers, 2017). Studies in higher education institution can also hop on this bandwagon, as they enjoy rich expertise in assessing academic's viewpoints of managerial reforms through qualitative techniques (e.g., Degn, 2018; Kallio & Kallio, 2014; Trullen & Rodriguez, 2013). Qualitative-schooled higher education scholars could delve deeper into the nature and causes of academic employee's perceptions of performance management success conditions. Do academic employees' perceptions correspond to reality? On what do academic employees base themselves to form such perceptions? Do academic employees also attribute their well-being to aspects of leadership and performance management systems? As such, a collaboration between disciplines can foster **mixed method designs** that enable a deeper understanding of the mechanisms behind performance management success conditions and academic employees' perceptions of these aspects. This will help performance management research to overcome its quantitative focus (McKenna, Richardson, & Manroop, 2011).

The **who-question** is concerned with the contextual validity and limitations of the theory. Ideally, a middle range theory of the success conditions of performance management systems in higher education institutions has broad geographical relevance for a broad array of academic employees. This dissertations' contribution to the who-question is concerned with the geographic context of Flanders and staff categories as PhD students, assistants, postdocs and lecturers. In other words, non-professorial higher education staff that resort under a clear academic leader and are most of

their time engaged in tasks pertaining to the core business of teaching and research. This choice was motivated by internal validity (rigor), to (1) keep constant institutional variation (Jacobsen & Andersen, 2014), (2) allow comparability of job characteristics (Dietz & Scheel, 2017), and (3) because non-professorial academic employees constitute a risk group for adverse well-being at work (Levecque et al., 2017). For these particular academic employees, we found that how they perceived performance management systems mattered for their well-being and performances. More importance, **differences in gender, function and faculty mattered little** to these observations. Tenure is the exception: Flemish academic employees with a longer state of service seem more critical towards performance management systems and experience less beneficial effects. However, our design choices have implications for external validity (relevance). To that end, future research will do well to assess how different '**contextual layers**' (e.g. country level, institutional level, job-level) impact the relationship between performance management success conditions, well-being and performances. To establish 'true' contextual effects, **comparative research** might be necessary. Since comparative research enjoys strong attention in both HRM, public management and higher education (cf. Antonucci, 2013; Brans, 2012; Dewettinck & Remue, 2011), a comparative approach might help to reconcile some of the differences existing between these disciplines in the study of performance management systems and their outcomes.

Overall, this dissertation has made an incremental contribution to a middle range theory of successful performance management systems in higher education institutions. In terms of the *what* and *how*, this dissertation offers some empirical and conceptual underpinning. However, it is clear that we have a lot of work ahead of us, especially where the *why* and *who* are concerned. Addressing each of the future research suggestions above implies that scholars in different disciplines will need to make choices, with implications for either rigor or relevance (Gulati, 2007). In doing, those

scholars will need to overcome a range of other challenges like differences in terminology and different questions posed in different disciplines (Thorpe & Holloway, 2008).

6.2 Limitations

Notwithstanding the strengths of this dissertation in providing insights into the effectiveness of performance management systems in higher education institutions, its limitations should be acknowledged. In the previous sections, we already touched upon a couple of shortcomings with suggestions for future research on how to address these lacunae. In this section, we discuss the main limitations of this dissertation in more detail.

A first main limitation is tied to the **empirical and geographical scope** of this dissertation. The focus of the studies was on non-professorial academic staff in higher education institutions in Flanders. The strength of such a design lies in its sectoral and functional homogeneity, which allows accounting for spurious relationships that typically emerge in studies with broader samples (Van der Hoek, Groeneveld, & Kuipers, 2018). Nevertheless, when contextualization increases, generalizability needs to proceed with more caution (Paauwe & Farndale, 2017). As such, our studies do not captivate how other staff categories (e.g, tenured academic staff, administrative staff) view performance management systems and their success conditions and with what effect on their well-being and performances. Our empirical scope also limits the extent to which we can generalize our findings to employees in other public sector organizations, although some of our findings concerning performance management success conditions were in line with those observed in other public contexts (e.g., Audenaert et al, 2019; Van Waeyenberg, Decramer, Desmidt & Audenaert, 2017; Van Thielen, Decramer, Vanderstraeten, & Audenaert, 2018; Van der Hoek et al., 2018). In addition, our geographical scope on Flanders should also be seen as a limitation. Nevertheless, it

is important to assert that the Flemish higher education system is well-embedded in that of other Western-European countries, especially in the aftermath of the Bologna process. In this sense, the Flemish context and the challenges faced by higher education institutions in Flanders are to a certain extent comparable to those in other European contexts (Broucker & De Wit, 2016; Broucker, Huisman, Verhoeven, & De Wit, 2018).

The second main limitation of this dissertation is concerned with the **data collection and design**. The studies in this work largely relied on self-reported cross-sectional data. The disadvantage is that this kind of data is prone to social desirability and common source bias, which can result in inaccurate conclusions. Problems of *endogeneity* and *causality* can also ensue, in which the causal order or the existence of external variables at play cannot be ruled out. Also, cross-sectional survey data does not allow for the temporal understanding of phenomena as longitudinal data does. Performance management systems and leadership are processual in nature. In higher education institutions, such systems have undergone a long evolution to arrive at their present form (Taylor & Baines, 2012) and, as illustrated by recent media reports, are still evolving today. The same goes for performance management systems in other organizations (Pulakos, Mueller-Hanson, & Arad, 2018). However, self-reported cross-sectional data also has its advantages. It is well-suited to study employees' perceptions or behavioral intentions, especially when other data sources are absent. Moreover, self-reported cross-sectional data minimizes disturbances in the field, while giving a good indication of the associations between the different variables under study (Anderson, 2013). This is important, given the difficulty to obtain information and cooperation from respondents in higher education institutions (cf. Decramer, 2011). Furthermore, we took appropriate precautions in survey design and during data analysis to mitigate some concerns. For example, promising anonymity, separating predictors and outcomes in the questionnaire. Also, testing one-factor and

common-factor models (George & Pandey, 2017; Podsakoff, MacKenzie, & Podsakoff, 2012), as well as using experimental vignettes to limit such issues (Haynes, & Heiby, 2004).

This dissertation's third limitation is, in line with the majority of HRM and performance management studies, its **positivist ontological framework**. *Ontology* refers to the 'way of seeing' social phenomena, like performance management systems. Despite the dissertation's post-positivist ambitions, the studies in this work remain strongly rooted in a positivist ontological tradition, at the detriment of a more critical and/or interpretive approach (McKenna et al., 2012). Throughout this dissertation, performance management systems might appear as factual objects 'out there' that exist independently of the individuals that design, implement and are subjected to these systems. This position does not do justice to the full-range subjectivity where concepts as performance management systems, leadership, well-being and performance are concerned. In this sense, it is important to assert that performance management systems come in different shapes and sizes, with multiple intensities of formality and stringency (Micheli & Mari, 2014). Performance management systems emerge through individuals (i.e. leaders and employees), that construct these systems in their interactions with each other. As envisioned by the HRM value chain, it is through these interactions that performance management systems as intended translate into performance management systems as implemented and perceived (Wright & Nishii, 2013). Another disclaimer to this dissertation's ontology is the seemingly *normative* and *managerialist character* of performance management systems. The message of this dissertation is not that performance management systems, while relevant, are unequivocally a 'best practice' for higher education institutions, for employees and leaders alike. Rather, critical management scholars draw attention to the fact that performance management systems, even when 'well-implemented', have an important political and symbolic dimension in regulating and shaping professional identities and

interest (Thompson, 2011). Hereby, performance management systems are criticized to reinforce the goals, expectations and interests of the dominant sociodemographical group, at the detriment of more *diversity* and *equality* in the workplace (Festing, Knappert, & Kornau, 2015). The lack of attention given to diversity and equality constitutes an important limitation of this dissertation, given that such political and symbolic dimensions of performance management systems are considered to be strongly present in the higher education context (Van den Brink & Benschop, 2012). However, in light of the present theoretical framework, diversity and equality can be considered as broader aspects of performance management fairness (i.e. equal treatment in rewards, procedures and personal treatment across sociodemographic profiles) and performance management consistency (i.e. consistency over time, place and sociodemographic profiles).

Following the previous restriction, this dissertations' fourth limitation is its **positivist epistemological orientation**, and related, its lack of adopting **qualitative research techniques**. Epistemology is concerned with our 'way of knowing' about social phenomena as performance management systems (Micheli & Mari, 2014). Within the field of higher education, several key studies on performance management systems are of a qualitative and interpretative nature (e.g., Sousa, de Nijs, & Hendriks; Melo et al., 2010). However, with a few exceptions (e.g., Biron et al., 2011), positivist epistemology and quantitative techniques remain dominant in the over-coupling performance management literature, at the cost of more paradigmatic diversity. The dominance of this epistemology translates itself into a strong preoccupation with laws and prescriptions about performance management systems and their outcomes that can be represented or unraveled by causal or linear relations and examined by means of quantitative techniques. Here, the systems approach serves as a perfect illustration. The partial view that this positivist epistemology offers, has two important implications. First, despite the dissertation's contextual aspiration, the results of

the empirical studies allow for a limited comprehension of the *contextual* and *institutional influences* that surround performance management systems (McKenna et al., 2012; Micheli & Mari, 2014), such the influence of legal frameworks (cf. Codex Higher Education), university regulations, supervisory dynamics (e.g., formality, multiple supervisors), influence of (sub)disciplines, as well as the faculty and departmental levels. In this sense, qualitative follow-up studies could have enabled a more composite and holistic understanding of the influences external to leaders and employees that shape subjective experiences of performance management systems and the performance management process, well-being and performances. Second, it leads to the erratic assumption that performance management systems are *closed systems* that are fully *controllable*, namely through 'success conditions'[6] (McKenna et al., 2012; Micheli & Mari, 2014). In practice, performance management systems are in continuous interaction with - and their success also depends on - other key HRM systems and practices like selection and recruitment or training and development (Van den Brink et al., 2012). In other words, performance management systems can be part of successful HRM strategies in higher education institutions, but cannot effectively replace such strategies.

A final main limitation of this dissertation is, counterintuitively, its **multidisciplinary**. In drafting this dissertation and the corresponding studies, the manuscript sought a delicate balance between the interests of HRM, public management and higher education scholars. While this multidisciplinary was instrumental to obtain a broad perspective on performance management systems and their outcomes, it often presented a challenge in writing, personal identification and

[6] Recent advances within the systems approach nuance the assumption of controllability by, among others, stressing *equifinality*. This refers to the fact that the link between performance management success conditions and outcomes is not that stringent. Rather, different configurations of performance management success conditions might result in the same - or even similar- outcomes (Schleicher et al., 2018).

in methodological and semantic choices that were made in this manuscript. As such, this dissertation only presents a partial picture and does not address all of the various issues and questions concerning performance management systems, well-being and performance that live in each of these disciplines.

6.3 Recommendations for future research

Are performance management systems, to mirror the question of Van Dooren and Hoffmann (2018, p. 207) "an idea whose time has come and gone"? The significant number of overview and recent insight articles (DeNisi & Murphy, 2017; Posthuma et al., 2018; Schleicher et al., 2018; Tseng & Levy, forthcoming) indicate that performance management systems will at least remain on the research agenda for the coming years. Based on the lacuna in theoretical development (6.1) and the limitations of this dissertation (6.2), the following recommendations can be suggested for future studies on performance management systems and in public organizations and higher education institutions specifically:

1 Future research could continue to explore the **success conditions** of performance management systems in higher education institutions and other public organizations. In identifying such conditions, attention should not go to direct effects on employee outcomes, but also to more complex interrelation of success conditions like mediations and moderations (cf. Matta et al., 2017; Ostroff & Bowen, 2016). To that end, the recent works of Schleicher et al. (2018) and Posthuma et al. (2018) can serve as starting points.

2 Research endeavors to come could concentrate their efforts on **further 'building in the leader'** in research on performance management systems (cf. Leroy et al., 2018; Tseng & Levy, forthcoming). Through *multi-level techniques*, researchers could assess how leaders'

perceptions of performance management systems influence those of their employees (i.e. 'trickle-down effects'). Furthermore, through *polynomial techniques*, studies could investigate (in)congruence in performance management perceptions between leaders and employees (i.e. 'congruence effects'), as well as how such (in)congruence affects well-being and performance variables in both linear and non-linear ways (cf. Audenaert et al., 2018; Maresceaux & De Winne, 2017). Alternatively, leadership in higher education institutions and public organizations is often exercised at different levels (Bolden et al., 2012; Ospina, 2017). Therefore, future studies could investigate how dynamics between such 'distributed leaders' relate to performance management implementation. Moreover, taking into account not formal and informal aspects of leadership, but also leaders' abilities, motivations and opportunities (AMO; Bos-Nehles et al., 2013; Van Waeyenberg & Decramer, forthcoming). The latter kind of studies could be informative on the extent to which academic or public leaders as 'users' accept performance management systems and whether they have sufficient training, experience and time and their disposition to fulfil such management duties (see also George, Desmidt, Cools, & Prinzie, 2018; George et al., 2019).

3 Next to leadership and the success conditions, researchers could further delve into the **individual-level antecedents** that shape employees' perceptions of performance management systems beyond the boundaries of function or discipline. For example, personality has been suggested as a potential influence (Bipp & Kleingeld, 2011). Specifically in higher education institutions, the role of nationality or cultural background presents an interesting avenue, since a recent qualitative study shows that international non-professorial higher education staff in Flanders face increased challenges in terms of well-being, turnover and how they are managed (Laufer & Gorup, forthcoming).

4 Along methodological lines, prospective research could stimulate the development of **experimental and qualitative (or mixed) designs**. The former are instrumental in validating causal relations between performance management systems and employee outcomes, as well as overcoming problems of endogeneity. The latter are especially useful to comprehend whether and how employees make attributions of their well-being and performance towards such systems (cf. Van Thielen et al., 2018). Not only can qualitative techniques help to overcome the predominant positivist and survey-oriented quantitative focus of performance management studies, they can also help to surpass the prescriptive and managerial position of such studies (McKenna et al., 2012). This would greatly benefit employee (and leader) voice, by focusing on how performance management systems are experienced and take shape in day-to-day academic work environments (Van den Brink et al., 2012).

5 Despite calls in the respective disciplines (cf. Antonucci, 2013; Brans, 2012; Dewettinck & Remue, 2011), **comparative research** remains rare. Comparative studies might be necessary to understand the validity of performance management success conditions across different 'contextual layers' (i.e., regional level, sectoral level, organizational level, job-level). The most important 'layer' in this sense might be the *job level*: are effective performance management systems the same for predocs, postdocs, tenured academic staff and/or support staff? HR differentiation literature suggests this is not the case, but that the effectiveness of a particular HRM system or approach rests on its ability to differentiate between various employee groups (Decramer et al., 2013; Lepak & Snell, 2002). Hence, future endeavours could draw upon comparative studies (or meta-analyses) to build a framework of performance management success conditions that takes into account different categories of academic employment. In addition, comparative approaches at *regional* and *organizational level* could also shed light on the antecedents of performance management success conditions. That is, whether their presence

is better explained by organizational contingencies (e.g., leadership) or institutional pressures (e.g., mimetic: copying the 'right' approach from other organizations) (George et al., 2019). Overall, comparative studies can help to achieve true contextual effects and truly live up to the promises of contextual HRM (Farndale & Paauwe, 2017).

6.4 Recommendations for practice

The science-practice divide is a pervasive problem in performance management research (Posthuma et al., 2018; Levy et al., 2017). Nevertheless, in the context higher education institutions and other public organization, research on the success conditions of performance management is instrumental to inform leaders and governing boards on how they can avoid potential unintended effects of performance management systems. In this way, this dissertation makes a pragmatic contribution to practice (cf. Van de Voorde, 2010).

First, the **primordial role of leaders as enables of successful performance management systems** clearly emerges from this dissertation. On a practical level, it implies that in designing performance management systems higher education institutions (and other organizations) should take into account what the design implies for leaders who implement the design at the end of the chain and how they can support those leaders in this task. Additionally, higher education institutions' performance management systems will benefit from stimulating constructive leader-employee relations (Chapter III) and developing leader competencies, especially in terms of intellectual stimulation, visionary goal-orientedness (Chapter IV) and correct interpersonal treatment (Chapter II). More important, however, our analyses also underpin the necessity of having performance management systems present, as 'good' leaders or leadership cannot simply replace them. Hence, it takes two to tango.

Second, nevertheless our focus on non-professorial employees, this dissertation adds to **ongoing discussions at (Flemish) higher education institutions to reform their performance management systems and career models**. Our studies underscore the effectiveness of performance management systems which are (a) *processual* in nature and (b) respect *coherence* and (c) *fairness* of criteria and approaches across goal-setting, feedback and evaluation (Chapters II, III, & IV). At first glance, this seems to run counter with contemporary plans and discussions in higher education institutions to eradicate a priori goals and expectations and put a strong emphasis on the evaluation aspect. When goals and expectations are absent or not clearly defined a priori, the risk that intermittent feedback and evaluation are less coherent becomes larger. It could also open the door to arbitrariness, and hence unfairness, as the evaluation happens a-posterori and is no longer the logical extension of a priori goals and expectations. Furthermore, by strongly emphasizing the evaluation aspect of performance management systems, present-day approaches risk implementing performance appraisal, rather than performance management systems. Therefore, it is important that sufficient attention to process, coherence and potential unfairness is included in contemporary plans and discussion on performance management systems to avoid unintended well-being and performance effects.

Third, this dissertation wishes to invite practitioners to **think of 'successes' not only in terms of publications or teaching metrics, but also in terms of well-being and performances** in the broad sense. Higher education institutions or other public organizations where employees are, for example, engaged, energetic, collaborative, innovative and/or feel they make a difference to society are, at least in our view, successful institutions or organizations. Furthermore, that performance management systems come to affect even non-professorial higher education staff, as was previously suggested by Levecque et al. (2017), implies that non-professorial higher education staff

could have a say in this matter and should be involved in the design of performance management systems.

Finally, beyond the higher education context the results of this dissertation draw attention to the **informal process between (academic) leaders and employees that underlies the success of formal performance management systems**. To use the metaphor of signal theory, performance management systems are in their essence an approach (as opposed to a tool) that streamlines the communication between organizations, leaders and employees (Biron et al., 2011). Performance management systems help leaders to communicate to employees what organizations expect of them and what can be improved. To ensure this communication process runs smoothly, leaders (and organizations) need to respect fairness, balance and consistency, combined with constructive and goal-oriented leader behaviors.

6.4 Concluding remarks

This dissertation underscores that the success of formal performance management systems is founded in informal processes between employees and their leaders, where optimizing the employee experience becomes central for healthy and performant organizations. During the performance management experience, academic employees value fairness, balance and consistency, combined with constructive and goal-oriented leadership. Specifically in higher education institutions, these findings imply that academic governing boards could focus more on how to practically organize performance management systems and how to support academic leaders in this task, rather than investing the bigger part of time and energy in discussions over metrics and output measures (cf. Franco-Santos & Doherty, 2017; Kallio, Kallio, & Grossi, 2017). If higher education institutions can succeed in making performance management systems more like

developmental learning approaches (cf. Van Dooren & Hoffmann, 2018), 'herding cats' becomes less impossible or pointless, rather indispensable. As long as we keep in mind that there is also an important role to play for the shepherd.

6.5 References

Aguinis, H., Joo, H., & Gottfredson, R. K. (2013). What monetary rewards can and cannot do: How to show employees the money. *Business Horizons*, *56*(2), 241-249.

Anderson, V. (2013). *Research methods in human resource management: Investigating a business issue*. London, UK: Ashford Colour Press.

Antonucci, L. (2014). Comparative research in higher education studies: Considering the different levels of comparison and emerging methodological challenges. In M. Tight & J. Huisman *Theory and method in higher education research* (pp. 1-19). Bingley, UK: Emerald Publishing Limited.

Audenaert, M., Carette, P., Shore, L. M., Lange, T., Van Waeyenberg, T., & Decramer, A. (2018). Leader-employee congruence of expected contributions in the employee-organization relationship. *The Leadership Quarterly*, *29*(3), 414-422.

Audenaert, M., Decramer, A., George, B., Verschuere, B., & Van Waeyenberg, T. (2019). When employee performance management affects individual innovation in public organizations: The role of consistency and LMX. *The International Journal of Human Resource Management*, *30*(5): 815-834.

Bakker, A. B., & Demerouti, E. (2014). Job demands–resources theory. In C. Cooper & P. Chen (eds.) *Wellbeing: A complete reference guide* (pp. 37–64). Chichester, UK: Wiley-Blackwell.

Barkhuizen, N., Rothmann, S., & Van De Vijver, F. J. (2014). Burnout and work engagement of academics in higher education institutions: Effects of dispositional optimism. *Stress and Health*, *30*(4), 322-332.

Bipp, T., & Kleingeld, A. (2011). Goal-setting in practice: The effects of personality and perceptions of the goal-setting process on job satisfaction and goal commitment. *Personnel Review*, *40*(3), 306-323.

Biron, M., Farndale, E., & Paauwe, J. (2011). Performance management effectiveness: Lessons from world-leading firms. T*he International Journal of Human Resource Management*, *22*(06), 1294-1311.

Bolden, R., Gosling, J., O'Brien, A., Peters, K., Ryan, M. K., Haslam, S. A., Longsworth, L., Davidovic, A. & Winklemann, K. (2012). *Academic leadership: Changing conceptions, identities and experiences in UK higher education*. Retrieved from: https://ore.exeter.ac.uk/repository/bitstream/handle/10871/15098/academic_leadership_v1_19312.pdf?sequence=2&isAllowed=y

Boon, C., Den Hartog, D. N., & Lepak, D. P. (forthcoming). A systematic review of human resource management systems and their measurement. *Journal of Management*.

Brans, M. (2012). *Comparative public administration: From general theory to general frameworks*. Thousand Oaks, CA: Sage.

Broucker, B., & De Wit, K. (2016). What Europe wanted and what Flanders achieved: Intentions vs results after 15 years of Bologna. *Higher Education Policy*, *29*(3), 315-334.

Broucker, B., Huisman, J., Verhoeven, J. C., & De Wit, K. (2018). The state of the art of higher education research on Flanders. In J. Huisman & M. Tight (eds.) *Theory and method in higher education research* (pp. 225-241). Emerald Publishing Limited.

Bos-Nehles, Anna, and Mieke Audenaert. (forthcoming). LMX And HRM: A multi-level review of how LMX is used to explain employment relationships In K. Townsend, K. Cafferky, T. Dundon,& M. Aoife *Introduction to Theories of Human Resources and Employment Relations*. Boston, MA: Elgar Publishing.

Bos-Nehles, A., Bondarouk, T., & Nijenhuis, K. (2017). Innovative work behaviour in knowledge-intensive public sector organizations: the case of supervisors in the Netherlands fire services. *The International Journal of Human Resource Management*, *28*(2), 379-398.

Bos-Nehles, A. C., Van Riemsdijk, M. J., & Looise, K.J. (2013). Employee perceptions of line management performance: applying the AMO theory to explain the effectiveness of line managers' HRM implementation. *Human Resource Management*, *52*(6), 861-877.

Cantarelli, P., Bellé, N., & Belardinelli, P. (forthcoming). Behavioral Public HR: Experimental Evidence on Cognitive Biases and Debiasing Interventions. *Review of Public Personnel Administration*.

Campbell, J. W., Lee, H., & Im, T. (2016). At the Expense of others: Altruistic helping behaviour, performance management and transformational leadership. *Public Management Review, 18*(6), 795-818.

Decramer, A. (2011). *Employee performance management in higher education* (doctoral dissertation). Ghent University, Ghent, Belgium.

Decramer, A., Smolders, C., & Vanderstraeten, A. (2013). Employee performance management culture and system features in higher education: Relationship with employee performance management satisfaction. *The International Journal of Human Resource Management*, *24*(2), 352-371.

Degn, L. (2018). Academic sensemaking and behavioural responses–exploring how academics perceive and respond to identity threats in times of turmoil. *Studies in Higher Education*, *43*(2), 305-321.

DeNisi, A., & Murphy, K. (2017). Performance appraisal and performance management: 100 years of progress?. *Journal of Applied Psychology*, *102*(3), 421-433.

Dewettinck, K., & Remue, J. (2011). Contextualizing HRM in comparative research: The role of the Cranet network. *Human Resource Management Review*, *21*(1), 37-49.

Dietz, C., & Scheel, T. (2017). Leadership and Presenteeism among Scientific Staff: The Role of Accumulation of Work and Time Pressure. *Frontiers in Psychology*, *8*(1), 1885-1885.

Franco-Santos, M., & Doherty, N. (2017). Performance management and well-being: A close look at the changing nature of the UK higher education workplace. *The International Journal of Human Resource Management*, *28*(16), 2319-235.

Franco-Santos, M., & Otley, D. (2018). Reviewing and theorizing the unintended consequences of performance management systems. *International Journal of Management Reviews*, *20*(3), 696-73.

Festing, M., Knappert, L., & Kornau, A. (2015). Gender-specific preferences in global performance management: An empirical study of male and female managers in a multinational context. *Human Resource Management*, *54*(1), 55-79.

George, B., Desmidt, S., Cools, E., & Prinzie, A. (2018). Cognitive styles, user acceptance and commitment to strategic plans in public organizations: an empirical analysis. *Public Management Review*, *20*(3), 340-359.

George, B., & Pandey, S. K. (2017). We know the Yin—But where is the Yang? Toward a balanced approach on common source bias in public administration scholarship. *Review of Public Personnel Administration*, *37*(2), 245-27.

George, B., Van de Walle, S., & Hammerschmid, G. (2019). Institutions or Contingencies? A Cross-Country Analysis of Management Tool Use by Public Sector Executives. *Public Administration Review*, *79*(3), 330-342.

Greenberg, J. (1987). A taxonomy of organizational justice theories. *Academy of Management Review*, *12*(1), 9-22.

Grimmelikhuijsen, S., Jilke, S., Olsen, A. L., & Tummers, L. (2017). Behavioral public administration: Combining insights from public administration and psychology. *Public Administration Review*, *77*(1), 45-56.

Gulati, R. (2007). Tent poles, tribalism, and boundary spanning: The rigor-relevance debate in management research. *Academy of Management Journal*, *50*(4), 775-782.

Haynes, S. N., & Heiby, E. M. (Eds.). (2004). *Comprehensive handbook of psychological assessment: Behavioral assessment*. Hoboken, NJ: John Wiley & Sons Inc.

Jacobsen, C.B., & Andersen, L.B. (2014b). Performance management for academic researchers: How publication command systems affect individual behavior. *Review of Public Personnel Administration*, *34*(2), 84-107.

Kallio, K. M., & Kallio, T. J. (2014). Management-by-results and performance measurement in universities–implications for work motivation. *Studies in Higher Education*, *39*(4), 574-589.

Kallio, K., Kallio, T., Tienari, J., & Hyvönen, T. (2016). Ethos at stake: Performance management and academic work in universities. *Human Relations*, *69*(3), 685–709.

Kallio, K., Kallio, T., & Grossi, G. (2017). Performance measurement in universities: Ambiguities in the use of quality versus quantity in performance indicators. *Public Money & Management*, *37*(4), 293-3.

Knies, E., & Leisink, P. (2014). Linking people management and extra-role behaviour: Results of a longitudinal study. *Human Resource Management Journal*, *24*(1), 57-76.

Knies, E., & Leisink, P. (2018). People management in the public sector. In C. Brewster & J. Cerdin (Eds.), *Not for the money: Human resource management in mission driven organizations* (pp. 15–46). Cham, Switzerland: Palgrave/Macmillan.

Krause, K. L. (2012). Addressing the wicked problem of quality in higher education: Theoretical approaches and implications. *Higher Education Research & Development*, *31*(3), 285-297.

KU Leuven (2015). *Tevredenheidsmonitor 2015: Een overzicht van de krachtlijnen van de resultaten op organisatieniveau*.

Latham, G. P., Borgogni, L., & Petitta, L. (2008). Goal setting and performance management in the public sector. *International Public Management Journal*, *11*(4), 385-403.

Laufer, M., & Gorup, M. (forthcoming). The invisible others: stories of international doctoral student dropout. *Higher Education*.

Lepak, D. P., & Snell, S. A. (2002). Examining the human resource architecture: The relationships among human capital, employment, and human resource configurations. *Journal of Management*, *28*(4), 517-543.

Leroy, H., Segers, J., Van Dierendonck, D., & Den Hartog, D. (2018). Managing people in organizations: Integrating the study of HRM and leadership. *Human Resource Management Review*, *28*(3), 249-257.

Levecque, K., Anseel, F., De Beuckelaer, A., Van der Heyden, J., & Gisle, L. (2017). Work organization and mental health problems in PhD students. *Research Policy*, *46*(4), 868-879.

Leveque, K., Baute, S., & Anseel, F. (2013). *Junior onderzoeker in Vlaanderen anno 2013: over dromen en realiteiten*. ECOOM, 2013(8).

Levy, P. E., Tseng, S. T., Rosen, C. C., & Lueke, S. B. (2017). Performance management: a marriage between practice and science–just say "I do". In M. Buckley, A. Wheeler, & J.

Halbesleben (eds.) *Research in personnel and human resources management* (pp. 155-213). Bingley, UK: Emerald Publishing Limited.

Markova, G., & Ford, C. (2011). Is money the panacea? Rewards for knowledge workers. *International Journal of Productivity and Performance Management*, *60*(8), 813-823.

Marescaux, E., & De Winne, S. (2017). *Do you see what I see? The impact of supervisor-employee and team-employeeperceptual (in)congruence concerning developmental HRM practices on employee outcomes*. 10th International Conference of the Dutch HRM Network, Nijmegen, the Netherlands.

Matta, F. K., Scott, B. A., Colquitt, J. A., Koopman, J., & Passantino, L. G. (2017). Is consistently unfair better than sporadically fair? An investigation of justice variability and stress. *Academy of Management Journal*, *60*(2), 743-77.

McKenna, S., Richardson, J., & Manroop, L. (2011). Alternative paradigms and the study and practice of performance management and evaluation. *Human Resource Management Review*, *21*(2), 148-157.

Melo, A. I., Sarrico, C. S., & Radnor, Z. (2010). The influence of performance management systems on key actors in universities: The case of an English university. *Public Management Review*, *12*(2), 233-254.

Micheli, P., & Mari, L. (2014). The theory and practice of performance measurement. *Management Accounting Research*, *25*(2), 147-156.

Moynihan, D., Pandey, S., & Wright, B. (2012). Setting the table: How transformational leadership fosters performance information use. *Journal of Public Administration Research and Theory*, *22*(1), 143-164.

Holloway, J. (2009). Performance management from multiple perspectives: taking stock. *International Journal of Productivity and Performance Management*, *58*(4), 391-399.

Ospina, S. M. (2017). Collective leadership and context in public administration: Bridging public leadership research and leadership studies. *Public Administration Review*, 77(2), 275-287.

Ostroff, C., & Bowen, D. E. (2016). Reflections on the 2014 decade award: Is there strength in the construct of HR system strength?. *Academy of Management Review*, *41*(2), 196-214.

Paauwe, J., & Farndale, E. (2017). *Strategy, HRM, and performance: A contextual approach*. Oxford, UK: Oxford University Press.

Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. Annual Review of Psychology, 63(1), 539-569.

Posthuma, R. A., Charles Campion, M., & Campion, M. A. (2018). A taxonomic foundation for evidence-based research on employee performance management. *European Journal of Work and Organizational Psychology*, *27*(2), 168-187.

Pulakos, E., Mueller-Hanson, R., & Arad, S. (2018). The evolution of performance management: Searching for value. *Annual Review of Organizational Psychology and Organizational Behavior*, *6*(1), 1.1-1.23.

Rowley, J. (2000). Is higher education ready for knowledge management? *International Journal of Educational Management*, *14*(7), 325-333.

Schleicher, D. J., Baumann, H. M., Sullivan, D. W., Levy, P. E., Hargrove, D. C., & Barros-Rivera, B. A. (2018). Putting the system into performance management systems: A review and Agenda for performance management research. *Journal of Management*, *44*(6), 2209-2245.

Selden, S., & Sowa, J. E. (2011). Performance management and appraisal in human service organizations: Management and staff perspectives. *Public Personnel Management*, *40*(3), 251-264.

Sharma, N. P., Sharma, T., & Agarwal, M. N. (2016). Measuring employee perception of performance management system effectiveness: Conceptualization and scale development. *Employee Relations, 38*(2), 224-247.

Shipton, H., Budhwar, P. S., & Crawshaw, J. (2012). HRM, organizational capacity for change, and performance: A global perspective. *Thunderbird International Business Review*, *54*(6), 777-790.

Sousa, C. A., de Nijs, W. F., & Hendriks, P. H. (2010). Secrets of the beehive: Performance management in university research organizations. *Human Relations*, *63*(9), 1439-146.

Spence, M. (1978). Job market signaling. In A. Diamond & M. Rothschild (eds.) *Uncertainty in Economics* (pp. 281-306). New York, NY: Academic Press.

Taylor, J., & Baines, C. (2012). Performance management in UK universities: Implementing the balanced scorecard. *Journal of Higher Education Policy and Management*, *34*(2), 111-124.

Thompson, P. (2011). The trouble with HRM. *Human Resource Management Journal*, *21(*4), 355-367.

Thorpe, R., & Holloway, J. (Eds.). (2008). *Performance management: multidisciplinary perspectives*. Springer.

Trullen, J., & Rodríguez, S. (2013). Faculty perceptions of instrumental and improvement reasons behind quality assessments in higher education: the roles of participation and identification. *Studies in Higher Education*, *38*(5), 678-692.

Tseng, S. T., & Levy, P. E. (forthcoming). A multilevel leadership process framework of performance management. *Human Resource Management Review*.

Van den Brink, M., & Benschop, Y. (2012). Slaying the seven-headed dragon: The quest for gender change in academia. *Gender, Work & Organization*, *19*(1), 71-92.

Van den Brink, M., Fruytier, B., & Thunnissen, M. (2013). Talent management in academia: performance systems and HRM policies. *Human Resource Management Journal*, *23*(2), 180-195.

Van der Hoek, M., Groeneveld, S., & Kuipers, B. (2018). Goal setting in teams: Goal clarity and team performance in the public sector. *Review of Public Personnel Administration*, *38*(4), 472-493.

Van De Voorde, K., Paauwe, J., & Van Veldhoven, M. (2012). Employee well-being and the HRM–organizational performance relationship: A review of quantitative studies. *International Journal of Management Reviews, 14*(4), 391-407.

Van Dooren, W., & Hoffmann, C. (2018). Performance Management in Europe: An idea whose time has come and gone? In E Ongaro & S. Van Thiel (eds.) *The Palgrave Handbook of Public Administration and Management in Europe* (pp. 207-225). London, UK: Palgrave Macmillan.

Van Thielen, T., Decramer, A., Vanderstraeten, A., & Audenaert, M. (2018). When does performance management foster team effectiveness? A mixed-method field study on the influence of environmental extremity. *Journal of Organizational Behavior*, *39*(6), 766-782.

Van Waeyenberg, T. (2018). *Performance management systems, employee well-being and performance* (doctoral dissertation). Ghent University, Ghent, Belgium.

Van Waeyenberg, T., & Decramer, A. (forthcoming). Line managers' AMO to manage employees' performance: the route to effective and satisfying performance management. *The International Journal of Human Resource Management*, 1-22.

Welpe, I. M., Wollersheim, J., Ringelhan, S., & Osterloh, M. (2015). *Incentives and performance: Governance of research organizations*. Heidelberg, Germany: Springer.

Whetten, D. A. (1989). What constitutes a theoretical contribution?. *Academy of management review*, *14*(4), 490-495.

Wright, P.M. & Nishii, L.H. (2013). Strategic HRM and organizational behaviour: Integrating multiple levels of analysis. In J. Paauwe, D. Guest & P. Wright (eds.) *HRM & performance: achievements & challenges* (pp. 97-110), Chichester, UK: Wiley.

APPENDICES

English summary

This dissertation is concerned with the question of how we can improve performance management systems in higher education institutions. It is written as a collection of four empirical papers. Performance management systems are defined as configurations of complementary human resource management (HRM) practices that enable organizations to set goals, give feedback and evaluate the efforts of their employees. Higher education institutions have adopted performance management systems to manage their staff more efficiently and effectively against the backdrop of challenges like democratization, marketization and public accountability. However, in higher education institutions, such systems often result in unintended effects on academic employees' well-being and performances, like burnout, reduced innovation and lower team performances. This particularly applies to non-professorial higher education staff. In response, scholars have started to inquire into the 'success conditions', particular conditions under which the unintended effects of performance management systems can be avoided or reversed. However, scholarship in this area is currently faced with four important challenges: (1) a scarcity of knowledge on the success conditions of performance management systems in the context of higher education; (2) a disconnection between studies on performance management systems and those of leadership; (3) a lack of attention to the diverse aspects of employees' well-being (health, social happiness) and performances (job and non-job related), as well as (4) connecting insights from different research traditions, which brings about a number of complications.

In an attempt to address these challenges, the current dissertation seeks to examine how and when performance management systems yield positive outcomes for the well-being and performance of academic employees in higher education institutions. In particular, how employees' perceptions of

leadership and success conditions contribute to such positive outcomes. To achieve this aim, the present dissertation builds on public HRM and proposes a five-fold framework. We build on the seminal work of Bowen and Ostroff (2004) to theorize that performance management systems need to be perceived as providing in clear goals and expectations (i.e. distinctiveness), being coherently applied (i.e. consistency) and resting on fairness and agreement of cause-effect relations (i.e. consensus). We add to this framework an equilibrium between what is expected of employees and what they receive in return (i.e. balanced employment relationships) and leader behavior and relations (i.e. leadership).

Empirical research

We tested this framework among non-professorial higher education staff in higher education institutions in Flanders. The Flemish higher education system is predominantly public funded and well-embedded in that of other Western-European countries. Furthermore, it was one of the pioneers in reforming and adopting new public management reforms, like performance management systems. Data came both from university researchers (PhD students, assistants, research aides, and postdocs) in the fields of science, technology, engineering and mathematics (STEM) and social sciences and lecturers in university colleges. This resulted in four empirical studies.

Our first study is concerned with the link between performance management systems and burnout and which implications this has for non-job related performances, like organizational citizenship behaviors. Burnout constitutes an acute problem in higher education institutions and performance management systems are sometimes pointed to as a potential cause. Likewise, performance management systems have a strong focus on individual performance, which might prevent

employees from displaying more other-oriented performances, like organizational citizenship behaviors. Since burnout is considered closely tied to our perceptions of fairness at work, we examined (1) whether academic employees perceive performance management systems as fair in terms of rewards, procedures and personal treatment, as well as (2) how these perceptions affect burnout and organizational citizenship behaviors. Based on structural equation modelling in a sample of 532 STEM academic employees, we found academic employees to have a mediocre to low perception of the fairness of their performance management systems. Nevertheless, the presence of performance management distributive and interactional fairness was found to reduce burnout dimensions, and in doing increase organizational citizenship behavior. The stronger effects for performance management interactional fairness suggest a strong role for interpersonal treatment of the leader during the performance management process. We found no significant effects for performance management procedural fairness, suggesting that academic employees are more sensitive to fairness dimensions that are closer to their day-to-day working life. Overall, the findings stress the importance of fair performance management systems and suggest academic employees should be more involved in the design of performance management systems.

The second study departs from the idea that employees are happier when they have a sense of societal impact in their job, especially in a public service environment like higher education. Nevertheless, performance management systems can alienate employees from experiencing such impact, due to inconsistencies in goals and expectations, follow-up or evaluation. Ultimately, this could result in confusion, frustration and reduced well-being. To that end, we examined performance management consistency in relation to perceived societal impact and job satisfaction. As constructive leader relationships might play a role in performance management implementation, as well as experiences of societal impact and job satisfaction, we also took into account leader-

member-exchange. Moderated mediation analysis of 532 STEM academic employees with structural equation modelling shows that academic employees perceive more societal impact and are more satisfied in their job when performance management is consistent and academic employees enjoy a constructive working relationship with their supervisor. Contrary to expectations, we find that leader-member exchange also reduces the positive relationship between performance management consistency and job satisfaction, although this influence is small. This could suggest that being in a leaders' in-group, might also yield additional goals and expectations that bear down on academic employees' well-being. Overall, these results suggest that higher education institutions should streamline expectations communicated through performance management systems, while constructive leader relationships could reinforce this process.

The third study examines the relationship between performance management systems and innovation in research and how transformational leaders affect this association. While both performance management systems and transformational leadership are linked to increased innovation, their innovative potential is questioned in public organizations and in combination with each other. We theorize that when performance systems provide clear goals and expectations (i.e. performance management distinctiveness) and leaders remain consistently loyal to those goals and expectations during planning, follow-up and evaluation (i.e. performance management consistency), such systems can stimulate innovation among academic employees. We expect such effects to be stronger for transformational leaders. Transformational leaders are goal-oriented leaders that not only stimulate employees intellectually, but also help to concretize goals and expectations and are more consistent in their own behavior. Based on an experimental vignette study of 178 academic employees in social science, we find more innovative behavior when performance management consistency is high. This effect is stronger in the presence of a

transformational leader. Similar effects could not be reproduced for performance management distinctiveness. These results are in line with traditional goal-setting theory, which states that clear goals and expectations are less suited for innovative performances. Since innovation is an important aspect of performance in higher education institutions, distinctive performance management systems might be less effective in this kind of environment. Finally, these results could also imply that when goals and expectations are more clearly demarcated, transformational leaders have less leeway to operate. Overall, these effects illustrate the complexity of how performance management systems and leaders interact with each other.

The final study takes as its starting point that the individual goals and expectations that leaders require of their employees in a performance management context (i.e. expected contributions), should be balanced against the material and immaterial rewards these employees receive in return (i.e. offered inducements). In public environments, like higher education institutions, we argued there is less discrepancy of individual rewards and more homogeneity at team level. We contrasted this balance against vitality, a fundamental aspect of employees' work engagement and team performance. We also tested whether these associations were linear, since a high intensity of goals and expectations can work motivating, but too much can also be too much, with implications for subsequent well-being and performance. Hierarchical regression on data from 215 lecturers in 66 university colleges shows that individual-level expected contributions stimulate team performance, mediated by vitality. This mediated relationship is stronger when employees perceive more team-level inducements. Empirical indications for non-linear effects were not supported. The results suggest that academic employees work better in situations where both goals, expectations and (im)material rewards are high. In sum, successful performance management systems in higher education institutions should take into account the balance between expectations and rewards, as

this balance does not only influence individual academic employees' well-being and performances, but ultimately also that of the teams to which they belong.

Discussion and conclusion

In summary, academic employees in higher education institutions are healthier and more performant when they experience performance management systems as fair, with expectations balanced against inducements. Also, that goals and expectations aspects are consistently applied and that they receive a correct treatment and sufficient information from their leader during goal-setting, feedback and evaluation. Leaders are both supporters of performance management success conditions and direct success conditions of performance management systems. This applies to more formal aspects of leadership and leader behavior, but also to more informal and relational aspects. However, leaders should not be regarded as a panacea, as our observation of leaders' interaction with performance management success conditions seems to suggest a more complex interplay.

The general pattern in our observations seems to be that performance management systems have positive synergies with both employees' well-being and performances (mutual gains). Such findings contrast with the dysfunctional effects of performance management systems as described in higher education literature. However, it is important to remain critical. The main message is that academic employees' personal perceptions of performance management implementation are a force to be reckoned with in striving for healthy and performant academic employees. Therefore, the subsequent challenge moves to managing those perceptions.

Overall, this dissertation has made an incremental contribution to a middle range theory of successful performance management systems in higher education institutions. However, it is clear that we have a lot of work ahead of us. As such, this dissertation is limited by its focus on non-professorial higher education staff and the Flemish context, the use of self-reported cross-sectional

data, its ontological and empistemological position, the lack of qualitative research techniques and the delicate balance between disciplines. Future research could continue to explore the success conditions in higher education institutions and continue to build the leader in performance management research. In addition, research could delve in more individual-level determinants of performance management perceptions and adopt more experimental, mixed-method and comparative designs.

On a practical level, this dissertation invites higher education institutions not only to think of successes in terms of teaching and research metrics, but also in terms of well-being and other kinds of performances. Furthermore, the dissertation draws attention to the informal process between (academic) leaders and employees that underlies the success of formal performance management systems. To that end, this dissertation has implications for academic leaders that bear the responsibility for performance management systems in higher education institutions, and in extention, the broader public sector.

Dutch summary

Dit doctoraal proefschrift gaat over de vraag hoe we performance managementsystemen in het hoger onderwijs kunnen verbeteren. Het is geschreven als een verzameling van vier empirische papers. Performance managementsystemen worden gedefinieerd als configuraties van complementaire human resource managementpraktijken (HRM) waarmee organisaties doelen kunnen stellen, feedback kunnen geven en de inspanningen van hun werknemers kunnen evalueren. Instellingen voor hoger onderwijs hebben performance managementsystemen ingevoerd om hun personeel efficiënter en effectiever te beheren in functie van uitdagingen zoals democratisering, vermarkting en het afleggen van publieke verantwoording. Performance managementsystemen in het hoger onderwijs leiden echter vaak tot onbedoelde effecten op het welzijn en de prestaties van academische werknemers, zoals burn-out, verminderde innovatie en slechtere teamprestaties. In het bijzonder worden academische medewerkers zonder ‘tenure’ of vaste aanstelling getroffen. Bijgevolg zijn onderzoekers zich gaan verdiepen in de 'succescondities', condities die de onbedoelde effecten van performance managementsystemen kunnen vermijden of omkeren. Echter, onderzoek op dit gebied staat momenteel voor belangrijke vier uitdagingen: (1) de kennis over de succescondities van performance managementsystemen in de context van het hoger onderwijs is beperkt; (2) performance managementsystemen worden vaak bestudeerd los van leiderschap; (3) er is weinig aandacht voor de diversiteit van welzijnsaspecten (zowel gezondheids-gerelateerd, sociaal-gerelateerd, geluk-gerelateerd) en prestatieaspecten van medewerkers (zowel werk als niet werk-gerelateerd). Daarnaast (4) vereist de studie van performance managementsystem ook dat inzichten uit verschillende onderzoekstradities worden geïntegreerd, wat een aantal complicaties met zich meebrengt.

In een poging om deze uitdagingen aan te pakken, probeert het huidige proefschrift te onderzoeken hoe en wanneer performance managementsystem positieve resultaten opleveren voor het welzijn en de prestaties van academische medewerkers in instellingen voor hoger onderwijs. In het bijzonder zijn we geïnteresseerd naar hoe de percepties van medewerkers over leiderschap en de succescondities van performance managementsystemen bijdragen tot dergelijke positieve resultaten. Dit proefschrift bouwt op publiek HRM en stelt een vijfvoudig raamwerk voor dat betrekking heeft op de succescondities van performance managementsystemen. Gebaseerd op het sleutelwerk van Bowen en Ostroff (2004) stellen we dat performance managementsystemen in duidelijke doelen en verwachtingen moeten voorzien (distinctief), coherent moeten worden toegepast (consistent) en rusten op rechtvaardigheid en een inzicht in de oorzaak-gevolg relaties (consensus). Aan dit raamwerk voegen wij twee zaken toe. Enerzijds het belang van een evenwicht tussen wat van werknemers wordt verwacht en wat zij ervoor terugkrijgen (een evenwichtige arbeidsrelatie). Anderzijds de invloed van leiderschapsgedrag en -relaties (leiderschap).

Empirisch onderzoek

Ons vijfvoudig raamwerk werd getest onder academische medewerkers met zonder tenure of vaste aanstelling binnen instellingen voor hoger onderwijs in Vlaanderen. Het Vlaamse hoger onderwijslandschap is overwegend door de overheid gefinancierd en is goed ingebed in dat van andere West-Europese landen. Wat onderzoek in de Vlaamse context interessant maakt, is dat Vlaanderen een van de pioniers was om managementhervormingen zoals performance managementsystemen door te voeren, in navolging van het new public management. Onze onderzoeksgegevens werden bekomen onder universitaire onderzoekers (promovendi, assistenten, onderzoeksmedewerkers, postdocs) in de domeinen van wetenschap, technologie, engineering en

wiskunde (STEM), alsook bij de sociale wetenschappen en bij docenten in hogescholen. Dit resulteerde in vier empirische studies.

In onze eerste studie gingen we het verband tussen performance managementsystemen en burnout na, alsook welke gevolgen dit kan hebben voor niet werk-gerelateerde prestaties zoals organizational citizenship behavior. Burn-out is een acuut probleem in instellingen voor hoger onderwijs en performance managementsystemen worden daarbij soms als een potentiële oorzaak aangeduid. Daarnaast hebben performance managementsystemen een sterke focus op individuele prestaties, waardoor werknemers soms minder prestaties stellen die geen individuele focus hebben, maar gericht zijn op anderen, zoals organizational citizenship behavior. Omdat burn-out wordt beschouwd als nauw verbonden met onze percepties van morele rechtvaardigheid op het werk, onderzochten we (1) of academische medewerkers performance managementsystemen als eerlijk beschouwen in termen van beloningen, procedures en persoonlijke behandeling, evenals (2) hoe deze percepties burn-out en organizational citizenship beïnvloeden. Op basis van structural equation modelling in een steekproef van 532 wetenschappelijke STEM-medewerkers, vonden we dat academische medewerkers een middelmatige tot lage perceptie hadden van de rechtvaardigheid van hun prestatiebeheersystemen. Desalniettemin, bleek de aanwezigheid van distributieve en interactionele rechtvaardigheid bepaalde aspecten van burn-out te verminderen en stelden academische medewerkers ook meer organizational citizenship behavior. Dat de effecten voor interactionele rechtvaardigheid vrij sterk waren, suggereert dat hoe academische medewerkers door hun leider of supervisor behandeld worden tijdens het plannen, opvolgen en evalueren van hun prestaties een belangrijke rol speelt. We vonden geen significante effecten voor de procedurele rechtvaardigheid van het performance managementsysteem, wat mogelijks suggereert dat academische werknemers gevoeliger zijn voor rechtvaardigheidsdimensies die dichter bij hun

dagelijkse werkleven aansluiten. Algemeen genomen benadrukken de bevindingen het belang van rechtvaardige performance managementsystemen, wat suggereert dat academische medewerkers mogelijks meer betrokken moeten worden bij het ontwerp van performance managementsystemen.

Onze tweede studie vertrekt van het idee dat werknemers gelukkiger zijn als ze het gevoel hebben dat hun werk een maatschappelijke impact heeft. Dit is vooral belangrijk voor medewerkers binnen de openbare dienstverlening, zoals het hoger onderwijs. Niettemin kunnen prestatiebeheersystemen medewerkers vervreemden van hun maatschappelijke impact, bijvoorbeeld omdat er inconsistenties bestaan tussen doelen en verwachtingen of tijdens de follow-up en evaluatie. Dit kan leiden tot verwarring, frustratie en verminderd welzijn. Met dit in het achterhoofd, onderzochten we in deze studie het verband tussen de consistentie van performance managementsystemen ten aanzien van de waargenomen maatschappelijke impact en de job tevredenheid van academische medewerkers. Omdat constructieve leiderschapsrelaties een rol kunnen spelen bij de implementatie van performance managementsystemen, alsook welke percepties medewerkers koesteren over hun maatschappelijke impact en job tevredenheid, werd ook leader-member exchange in rekening gebracht. Structural equation modelling bij 532 academische medewerkers in STEM toonde aan dat academische werknemers meer maatschappelijke impact ervaren en tevredener zijn over hun job wanneer hun performance managementsysteem consistent is en ze een constructieve werkrelatie hebben met hun leider of supervisor. In tegenstelling tot de verwachtingen, vinden we dat leader-member exchange de positieve relatie tussen consistentie van het performance managementsysteem en job tevredenheid vermindert, hoewel dit effect gering is. Mogelijks betekent dit dat academische medewerkers die zich in de ‘ingroup’ van hun leider bevinden, ook aan extra doelen en verwachtingen moeten voldoen, met (minieme) gevolgen voor hun welzijn. Al bij al suggereren deze resultaten dat

instellingen voor hoger onderwijs er goed aan doen om de doelen en verwachtingen die ze communiceren via performance managementsystemen te stroomlijnen. Constructieve leidersrelaties kunnen dit proces versterken.

De derde studie onderzoekt de relatie tussen performance managementsystemen en innovatie, alsook hoe transformationele leiders deze relatie beïnvloeden. Hoewel performance managementsystemen en transformationeel leiderschap beide worden gelinkt aan sterkere innovatie bij medewerkers, wordt hun innovatief potentieel in vraag gesteld in publieke organisaties, alsook in combinatie met elkaar. Gebaseerd op eerdere theoretische inzichten, testten wij de stelling dat wanneer performance managementsystemen duidelijke doelen en verwachtingen hebben (distinctief performance managementsysteem) en leiders consequent loyaal blijven aan die doelen en verwachtingen tijdens planning, feedback en evaluatie (consistent performance managementsysteem), performance managementsystemen innovatie kunnen stimuleren onder medewerkers. We verwachten dat dergelijke effecten sterker zijn in de aanwezigheid van transformationele leiders. Transformationele leiders zijn doelgerichte leiders die niet alleen werknemers stimuleren op intellectueel vlak, maar ook helpen om doelen en verwachtingen te concretiseren voor medewerkers. Daarnaast zijn transformationele leiders vaak meer consistent in hun eigen gedrag. Op basis van een experimenteel vignetonderzoek onder 178 academische medewerkers in de sociale wetenschappen, vinden we meer innovatief gedrag wanneer de consistentie van het performance managementsysteem hoog is. Dit effect is sterker in de aanwezigheid van een transformationele leider. Vergelijkbare effecten konden niet worden gereproduceerd voor een distinctief performance managementsysteem. Deze resultaten zijn in lijn met de traditionele goal-setting theorie. Die stelt dat duidelijke doelen en verwachtingen minder geschikt zijn om innovatieve prestaties te stimuleren. Omdat innovatie een belangrijk aspect is voor

prestaties in het hoger onderwijs, zijn distinctieve performance managementsystemen mogelijks minder effectief in dit soort organisaties. Ten slotte kunnen deze resultaten ook betekenen dat wanneer doelen en verwachtingen duidelijker worden afgebakend, transformationele leiders minder speelruimte hebben. Algemeen genomen illustreren deze effecten de complexiteit van hoe prestatiemanagementsystemen en leiders met elkaar interageren.

In onze laatste studie stellen we dat de individuele doelen en verwachtingen die leiders hun academische werknemers opleggen door middel van performance managementsystemen (verwachte bijdragen), in verhouding moeten zijn tot de materiële en immateriële beloningen die werknemers in ruil ontvangen (aangeboden stimulansen). Daarbij is het belangrijk om op te merken dat in publieke organisaties, zoals instellingen voor hoger onderwijs, beloningen minderen minder verschillen tussen individuele medewerkers en meer homogeniteit vertonen op teamniveau. We onderzochten de balans tussen verwachte bijdragen en aangeboden stimulansen op de vitaliteit en teamprestaties van academische medewerkers. Vitaliteit is een fundamenteel aspect van werk engagement, terwijl teamprestaties meer en meer aan belang winnen binnen het hoger onderwijs. Tevens namen we in rekening of de geteste relaties al dan niet lineair waren. Immers, hoge intensiteit van doelen en verwachtingen kan motiverend, maar te veel kan ook nadelige gevolgen hebben voor het welzijn en de prestaties van academische medewerkers. Door middel van een multi-level regressie met de gegevens van 215 docenten uit 66 hogescholen, stelden we vast dat een hogere intensiteit aan verwachte bijdragen op individueel niveau teamprestaties stimuleren. Deze relatie werd gemedieerd door vitaliteit. Bovendien was deze gemedieerde relatie sterker wanneer academische werknemers meer stimulansen op teamniveau ervoeren. Echter, niet-lineaire effecten werden door onze analyses niet ondersteund. De resultaten suggereren dat academische medewerkers beter presteren in team in situaties waarin zowel doelen, verwachtingen als (im)

materiële beloningen hoog zijn. Bijgevolg zijn succesvolle prestatiemanagementsystemen in het hoger onderwijs diegene die een evenwicht tussen verwachtingen en stimulansen in rekeningen brengen. Deze balans is belangrijk, omdat het overschrijden ervan niet alleen gevolgen heeft voor het welzijn en de prestaties van individuele medewerkers, maar ook de teams waar ze deel van zijn.

Discussie en conclusie

Samenvattend kunnen we stellen dat academische medewerkers in instellingen voor hoger onderwijs gezonder en performanter wanneer zij performance managementsystemen ervaren als rechtvaardig en gebalanceerd in termen van verwachtingen en stimulansen. Voorts dat doelen en verwachtingen consistent worden gerespecteerd en dat academische medewerkers correct worden behandeld en voldoende informatie krijgen van hun leider tijdens het plannen, opvolgen en evalueren. Leiderschap kan zowel de succescondities van performance managementsystemen versterken, maar kan tevens beschouwd worden als een succes conditie op zich. Dit geldt voor zowel voor formele aspecten van leiderschap en leiderschapsgedrag, alsook voor meer informele en relationele aspecten. We moeten echter opletten om leiders niet als een wondermiddel te gaan beschouwen. Onze bevinden wijzen er immers ook op een complexe wisselwerking tussen leiders en performance managementsystemen.

Het algemene patroon in onze observaties is dat performance managementsystemen positieve synergiën hebben met het welbevinden en de prestaties van beide werknemers (mutual gains). Dergelijke bevindingen staan in schril contrast met de disfunctionele effecten van performance managementsystemen zoals beschreven in de literatuur van het hoger onderwijs. Het is echter belangrijk om kritisch te blijven. De belangrijkste boodschap is dat de percepties van academische medewerkers over performance managementsystemen een factor zijn waarmee rekening moet

worden gehouden bij het streven naar gezonde en performante academische medewerkers. Bijgevolg zal de uitdaging erin bestaan op een adequate manier met deze percepties om te gaan. Dit proefschrift heeft een bescheiden bijdrage geleverd aan het ontwikkelen van een middle range theorie voor de implementatie van performance managementsystemen in het hoger onderwijs. Toch is het duidelijk dat we nog veel werk voor de boeg hebben. Al dusdanig is dit proefschrift beperkt door zijn focus op academische medewerkers zonder vaste aanstelling, de Vlaamse context, het gebruik van zelf-gerapporteerde cross-sectionele data, de ontologische en epistemologische assumpties, het gebrek aan kwalitatief onderzoek en de delicate balans tussen disciplines. Toekomstig onderzoek kan de studie naar de succescondities van performance management system in instellingen voor hoger onderwijs verderzetten. Het kan ook doorgaan met het integreren van een leiderschapsperspectief in studie naar performance managementsystemen. Bovendien zouden toekomstige studies kunnen stilstaan bij een aantal individuele determinanten die percepties van performance managementsystemen bij medewerkers kunnen meehelpen verklaren. Tot slot is toekomstig onderzoek gebaat bij meer experimenteel onderzoek, mixed methods en comparatief onderzoek.

Op praktisch niveau nodigt dit proefschrift instellingen van het hoger onderwijs uit om niet alleen te denken aan 'succes' in termen van onderwijs- en onderzoeksindicatoren, maar ook op het gebied van welzijn en andere vormen van prestaties. Verder vestigt het proefschrift de aandacht op het informele proces tussen (academische) leiders en medewerkers dat ten grondslag ligt aan het succes formele performance managementsystemen. Daartoe biedt dit proefschrift een aantal praktische implicaties voor academische leiders die de verantwoordelijkheid dragen voor performance managementsystemen in het hoger onderwijs, en bij uitbreiding, andere publieke organisaties.

Research output

Under review

- Bauwens, R., Audenaert, M., & Decramer, A. (2019). Does Innovative Work Behavior in Public Organizations Require Clear and Consistent Performance Management? A Survey Experiment. Under review in *International Public Management Journal.*
- Bauwens, R., Audenaert, M., & Decramer, A. (2019). Challenged by Great Expectations? Examining Cross-Level Interactions and Curvilinear Influences in the Public Sector Job Demands-Resources Model. Under review in *Review of Public Personnel Administration*.

International peer-reviewed publications (A1)

- Bauwens, R., Audenaert, M., Huisman, J., & Decramer, A. (2019). Performance Management Fairness and Burnout: Implications for Organizational Citizenship Behaviors. *Studies in Higher Education, 44*(3), 584-598.
- Bauwens, R., Audenaert, M., & Decramer, A. (2018). Fostering societal impact and job satisfaction: The role of performance management and leader-member exchange. *Public Management Review.*
- Van Thielen, T., Bauwens, R., Audenaert, M., Van Waeyenberg, T., & Decramer, A. (2018). How To Foster The Well-Being Of Police Officers: The role of the employee performance management system. *Evaluation and Program Planning*, 70(11), 90-98.

Dutch language peer-reviewed publications (A2)

- Bauwens, R., Audenaert, M., & Decramer, A. (2018). Wees vooral fair: hoe je burn-out onder jonge academici tegengaat. *TH&MA*, (1), 48–51.

Book chapters (B2)

- Bauwens, R. (forthcoming). Equity Theory. In B. Van der Heijden, P. De Prins, P., & W. De Lange *Canon van HRM: Grondleggers van modern personeelsmanagement en hun illustere voorgangers*. Deventer, Nederland: Vakmedianet.

Popular press (V)

- Decramer, A., Audenaert, M., Bauwens, R., & Van Waeyenberg, T. (2017). HRM als drijfveer voor Welzijn en Prestaties. *VOSEKO-magazine*.

Conference papers (C3)

- Bauwens, R., Audenaert, M., & Decramer, A. (2018). Does innovative work behavior in public organizations require clear and consistent performance management? A survey experiment. Presented at the European Group for Public Administration (EGPA) Annual Conference, Lausanne, Switzerland.
- Bauwens, R., Audenaert, M., & Decramer, A. (2018). Giving and taking when teaming up: the employment relationship, vitality and team performance in higher education. Presented at the 2018 People Management in Education Seminar, Tilburg, The Netherlands.

- Bauwens, R., Audenaert, M., & Decramer, A. (2017). The strategic involvement of narcissistic leaders in employee performance management: Implications for job performance in university colleges in Flanders. Presented at the 10th Biennial International Conference of the Dutch HRM Network.
- Bauwens, R., Audenaert, M., & Decramer, A. (2017). How to foster societal impact through performance management in universities. Presented at the European Group for Public Administration (EGPA) Annual Conference, Politechnico di Milan, Italy.
- Bauwens, R., Decramer, A., Audenaert, M., & Van Waeyenberg, T. (2016). Employee performance management systems in higher education: does the research leader affect system strength and employees' performance management satisfaction? Presented at the Xth international workshop on HRM, University of Cádiz, Spain.
- Bauwens, R., Audenaert, M., Van Waeyenberg, T., & Decramer, A. (2016). Employee performance management systems and their implementation by research leaders in higher education institutions. Presented at the 38th annual conference of the European Higher Education Society (EAIR), Birmingham City University, United Kingdom.
- Bauwens, R., Van Waeyenberg, T., Audenaert, M., & Decramer, A. (2016). Employee performance management in higher education institutions: system design, implementation by line management and employees' performance management satisfaction. 12th EGPA/IIAS Transatlantic Dialogue, Ghent University, Belgium.

Measures

Performance management fairness (Colquitt et al., 2001)

Performance management distributive justice

The outcomes of planning, monitoring and evaluating my research

1. … reflect the effort I put into my research.
1. … are appropriate for the amount of research I complete.
2. … reflect what I contribute to my research team.
3. … are justified, given my realized research targets.

Performance management procedural justice

The process of planning, monitoring and evaluating of my research…

1. … allows me to express my views and feelings.
2. … allows me to influence the outcomes.
3. … is applied consistently.
4. … is free of bias.
5. … is based on accurate information.
6. … allows me to appeal the outcomes.
7. …upholds ethical and moral standards.

Performance management interactional justice

During planning, monitoring and evaluating of my research, my research leader…

1. … treats me in a polite manner.
2. … treats me with dignity.
3. … treats me with respect.
4. ...refrains from making improper remarks or comments towards me.
5. ...is candid when communicating with me.
6. ...explains the procedures of planning, monitoring and evaluation thoroughly.
7. ...gives me reasonable explanations regarding the procedures of planning, monitoring and evaluation.
8. ...communicates me the details of planning, monitoring and evaluation in a timely manner.
9. ...tailors communications of planning, monitoring and evaluation to meet my individual needs.

Burnout (Demerouti et al., 2003)

Emotional exhaustion

1. I never feel tired before I arrive at work [R].
2. I don't need much time to relax and feel better [R].
3. I can tolerate the pressure of my work very well [R].

4. During my work, I never feel emotionally drained [R].
5. After working, I have enough energy for my leisure activities [R].
6. After my work, I never feel worn out and weary [R].
7. Usually, I can manage the amount of my work well [R].
8. When I work, I usually feel energized [R].

Disengagement from work

1. I always find new and interesting aspects in my work [R].
2. I never talk about my work in a negative way [R].
3. It almost never happens to me that I think less at work and do my job mechanically[R].
4. I find my work a positive challenge [R].
5. One can never become disconnected from this type of work [R].
6. I never feel sickened by my work tasks [R].
7. This is the only type of work that I can imagine myself doing [R].
8. I feel more and more engaged in my work [R].

Organizational citizenship behavior (Moorman & Blakely, 1995)

1. I defend my research team when fellow researchers criticize it.
2. I discuss the research conducted by my research team with friends and family.

3. I defend my research team when outsiders criticize it.
4. I show pride when representing my research team in public.
5. I actively promote the research conducted by my research team.
6. I go of my way to help fellow research team members with work related problems.
7. I voluntary help new research team members settle into the job.
8. I frequently adjust my work schedule to accommodate other research team members request for time-off.
9. I always go out of the way to make newer researchers feel welcome in the research team.
10. I show genuine concern and courtesy towards fellow research team members, even under the most trying situations.

Performance management consistency (Bednall et al., 2014)

The planning, monitoring and evaluation [of my research]…

1. … realizes the goals for which it was designed.
2. … succeeds in reinforcing the desired behaviors.
3. … achieves its intended goals.
4. … designed in such a way that desired behaviors are being encouraged.
5. … contributes to the better functioning of my research team.
6. There is clear consistency between words and deeds of my research leader during the planning, monitoring and evaluation [of my research].

Leader-member exchange (Bauer & Green, 1996)

1. I usually know where I stand with my research leader.
2. I usually know how satisfied my research leader is with what I do.
3. My research leader understands my problems and needs.
4. My research leader recognizes my potential.
5. My research leader would be personally inclined to use his or her power to help me solve problems in my work.
6. I can count on my research leader to 'bail me out', even at his or her own expense.
7. My research leader has enough confidence in me, that he or she would defend my actions and decisions if I were not present to do so.
8. I would characterize the working relationship with my research leader as very effective.

Perceived societal impact (Leisink & Steijn, 2009; Van Loon et al., 2015)

1. Someone with a research job like mine contributes to solving societal problems.
2. Someone with a research job like mine provides an important contribution to society.
3. Someone with a research job like mine contributes to creating more equal opportunities for all citizens.
4. In a research job like mine, it is not possible to actually help people [R]

Job satisfaction (Cammann et al., 1983)

1. All-in all, I am satisfied with my job.
2. In general, I like working here.
3. In general, I do not like my job [R]

Transformational leadership (Avolio & Bass, 2004)

My supervisor…

1. ...makes sure I feel good when he / she is around.
2. ...uses a few simple words to express what I can do.
3. ...helps me think in new ways about old problems.
4. ...helps me to develop myself.
5. ... has my complete faith.
6. ...draws a pleasant picture concerning all I can do.
7. ...provides me with a fresh outlook on the matters.
8. ...gives his / her opinion on how I am doing at work.
9. ... makes me proud to be associated with him / her.
10. ...helps me rethink existing ideas, which haven't been questioned before.
11. ...succeeds in letting me rethink existing ideas, which haven't been questioned before.
12. ...attaches personal importance to me when I feel discouraged.

Experimental vignettes (new developed scenarios)

Low distinctiveness, low consistency

Carefully read the following statement

Below is a description in which we ask you to think about an actual situation with your supervisor.

Think about a research-related situation in which your supervisor gave **clear instructions** about what was expected of you, when you would get feedback and on which criteria your success would be evaluated. Your supervisor's feedback and evaluation were **consistent** with his / her previous instructions.

High distinctiveness, low consistency

Carefully read the following statement

Below is a description in which we ask you to think about an actual situation with your supervisor.

Think about a research-related situation in which your supervisor gave **clear instructions** about what was expected of you, when you would get feedback and on which criteria your success would be evaluated. However, your supervisor's feedback and evaluation were **inconsistent** with his / her previous instructions.

High distinctiveness, low consistency

Carefully read the following statement

Below is a description in which we ask you to think about an actual situation with your supervisor.

Think about a research-related situation in which your supervisor gave **unclear instructions** about what was expected of you, when you would get feedback and on which criteria your success would be evaluated. Nevertheless, your supervisor's feedback and evaluation were **consistent** with his / her previous instructions.

High distinctiveness, high consistency

Carefully read the following statement

Below is a description in which we ask you to think about an actual situation with your supervisor.

Think about a research-related situation in which your supervisor gave **unclear instructions** about what was expected of you, when you would get feedback and on which criteria your success would be evaluated. Moreover, your supervisor was **inconsistent** in communicating his/her expectations, giving feedback and evaluating your success.

Innovative work behavior (Scott & Bruce, 1994)

What effect did the actual situation previously described have on your creativity at work?

1. I generated more creative research ideas.
2. I searched out new research ideas.
3. I promoted and championed new research ideas to my supervisor.
4. I investigated and secured means to implement new research ideas.
5. I developed adequate plans and schedules for the implementation of new ideas.

Expected contributions (Jia et al., 2014)

[During planning, monitoring and evaluating my teaching activities], my programme coordinator expects me to…

In-role requirements

1. … fulfill the job inside and out.
2. …complete my performance goals in quality and quantity.
3. …operate legally and follow the rules and policies of the programme.
4. …conscientiously complete extra assignments at a moment's noticed.
5. … work seriously and accurately.
6. …team up with other lecturers in the job.
7. …work hard without complaints (removed).
8. …contribute to the future development of the programme.
9. … actively promote the programme's image and reputation.

Extra-role work requirements

1. …take initiative to make constructive suggestions on the programme.
2. …adopt new ideas and methods actively to improve my teaching.
3. …continuously improve work procedures and methods.
4. …take initiative to carry out new or challenging assignments.

Offered inducements (Jia et al., 2014)

[During planning, monitoring and evaluating my teaching activities], my programme coordinator

1. …values my feedback on the programme.
2. …emphasizes my career development.
1. …cares about my satisfaction at work.
2. …create opportunities for me to show my talents.
3. …treats me fairly.
4. …values my suggestions on the programme.
5. …empowers me fully within their sphere of responsibility.
6. …encourages employees to participate actively in decision making within the programme.
7. …respects my human dignity.
8. …trains me on the knowledge and skills I require for my job and career development.

Vitality (Schaufeli & Bakker, 2004)

1. At my work, I feel bursting with energy.
2. At my job, I feel strong and vigorous.
3. When I get up in the morning, I feel like going to work.
4. I can continue working for very long periods at a time.
5. At my job, I am very resilient, mentally.
6. At my work I always persevere, even when things do not go well.

Team performance (Welbourne et al., 1998)

How would you judge your qualities as a teamplayer?

1. Working as an indispensable part of the programme.
2. Actively informing oneself with other lecturers in the progamme.

3. Ensuring the programme succeeds.
4. Responding to the needs of other lecturers in the programme.