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Beyond the Bench: The Professional Identity of Research Management and Administration

José M. R. C. A. Santos[1,2], Carolina Varela[3], Melinda Fischer[4], Simon Kerridge[5]

[1] Centro de Investigação de Montanha (CIMO), Instituto Politécnico de Bragança, Campus de Santa Apolónia, 5300-253 Bragança, Portugal. Corresponding author: josesantos@ipb.pt

[2] Laboratório para a Sustentabilidade e Tecnologia em Regiões de Montanha (SusTEC), Instituto Politécnico de Bragança, Campus de Santa Apolónia, 5300-253 Bragança, Portugal

[3] School of Social Sciences and Humanities, Universidade Nova de Lisboa, Lisbon, Portugal

[4] College of Education, Clemson University, Clemson, SC, USA

[5] Research & Innovation Services, University of Kent, Canterbury, UK

Abstract

This study addresses the dearth of theoretical stances on the professional status of research managers and administrators (RMAs) based at higher education institutions and at other science-related organizations. Using the lens of 'narrative identities' theory, it explores their professional identity in contemporary neoliberal research and innovation ecosystems. Through semi-structured interviews and thematic analysis, the study examines whether RMAs consistently articulate a distinct professional identity. Findings reveal that RMAs exhibit a strong sense of purpose, navigating dynamic professional trajectories influenced by both public management structures and personal motivations. Despite recognizing their unique expertise, RMAs face identity tensions that bridge academia and other professional spheres. The study highlights the growing need to professionalize RMAs and the potential for more formal recognition of their role.

Keywords research management, narrative professional identities, neoliberal research and innovation ecosystems

Introduction

The adoption of the new public management (NMP) paradigm by higher education institutions (HEIs) has been a major driver for the rise of a new breed of staff in this sector (Degn et al., 2018; Olssen & Peters, 2005; Pick et al., 2012; Verbaan & Cox, 2014). However, the influence of a market-oriented culture on HEIs' workforces has primarily been investigated among academic faculty, with comparatively less examination of its implications for professional staff (Berkovich & Wasserman, 2019).

The emergence of neoliberal discourses in HEIs has led to a push for commercializing and commodifying scientific knowledge (Gibbons et al., 2010). The need to develop income streams through cooperation with society at large and, particularly, with businesses led to the hiring of dedicated personnel, often with a business background, for interface roles. Scholars such as Martin et al. (2021) directed their attention to these individuals, arguing that the introduction of these new roles naturally converged boundaries within the university, bringing diverse communities of administrators, professors, and researchers closer together.

The NMP paradigm also brought about a greater need for accountability of public money invested in science and technology development and for the delivery of added value to society in general. This led to a growing adoption of both institutional and project-level management practices (Degn et al., 2018) and to what Fowler et al. (2015) call the 'projectification' of research and innovation (R&I) activities. This shift served as a catalyst for embracing a more goal-oriented research approach (Ito & Watanabe, 2021; Ylijoki, 2003). Larger grants and the establishment of international consortia frequently necessitated the creation of more organized structures. This led to the emergence of a new

professional space within academia and research funding organizations, specifically focused on the management and administration of R&I activities: Research Managers and Administrators (RMAs). Thus, the rise of investment in research activities, the growing requirements of research funding, and the rising competition for these funds (Campbell, 2010) contributed to the emergence of the profession. Schützenmeister (2010) noted that often scientifically trained people are hired for these roles, thus offering a relevant career trajectory distinct from research performing roles in academia (Canolle & Vinot, 2021). Fowler et al. (2015) identified these new professionals as frequently being "youngish researchers with diminishing senior support and/or funding", working at the boundary level between researchers and administrators (Fowler et al., 2015, p. 28). However, the actual reasons why researchers are often sought after or look for research management and administration positions call for further research.

The emergence of professional fields that blend the profiles of managers and academics has been notably envisioned by Whitchurch as a 'third space' or 'blended professionals' (Whitchurch, 2008, 2009, 2012, 2015, 2019). In the specific case of RMAs, Collinson (2006), among other researchers, addressed research management and administration as a 'putative' blurred and permeable boundary field between academics and 'non-academics'. More recently, Poli (2018) provided an extensive review of the roles that RMAs hold and of their professional development opportunities as phases of evolution of the profession. Also, a reinterpretation of RMAs as those 'professionals at the interface of science' has been put forward recently by Agostinho et al. (2020), and further discussed by Santos et al. (2021). Even more recently, de Jong (2023) has suggested that RMAs are likely to be included in the broader definition of professional staff. The fact that no commonly accepted definition for these new professionals exists can also be considered as an important part of their current professional identity.

Belonging to a group labeled as 'atypical' may give rise to tensions with peers in one's own professional domain and internal conflicts about integrating into the profession when key elements of one's identity diverge from the prevailing prototype (Saskia et al., 2018). These challenges arise from discrepancies between individuals' self-perceptions and the collective identity they belong to and can significantly impact an individual's well-being and professional achievements (Ford, 2012; Vogel & Feldman, 2009). As a new breed of professionals, RMAs often experience misaligned role expectations and perceptions with academics and 'typical' managers, leading to negative impacts on power relations (Brown & Lewis, 2011) and to institutional narratives about value or 'worth' (Laine et al., 2016). This often causes tensions among these professional groups and may lead to an 'identity crisis' which results in unclear career paths, as illustrated by former researchers who move to the research management and administration arena. Thus, there is an evident need to explore if the protagonists of this new occupation have developed coherent professional identities. Hence, the research question addressed in this study is: do RMAs express a clear and consistent professional identity internationally?

Professional identity refers to how individuals perceive themselves in their professional roles, the values and beliefs they associate with their profession, and the ways in which they define their functions within a specific context. Considering the central emphasis on research management and administration as an 'interface function' and, thus, as a social and personally connected professional activity, narrative identity theory was determined to be the most adequate theoretical lens to this research question, as it promotes "the constitution of identity through intersubjectivity" (Farquhar, 2012, p. 297). That is, an exploration of who we are in relation to others. Empirical data was collected by semi-structured interviews with RMA practitioners. The interviewees' narratives were used to examine the sense of self that RMAs derive both from who they

are as individuals with unique skills and through interactions within their workplace or broader groups (Bentley et al., 2019).

Next, we provide an overview of the extant literature on work organizational configurations, professional identity theoretical frameworks, and RMAs. This is followed by an explanation of the methodology employed. The main findings are then discussed, followed by conclusions, limitations of this study, and suggestions for future work.

Literature Review

Teams, Communities of Practice, Occupational Subcultures, and Professions

The simplest organizational structure for groups of individuals that share interests, roles, and/or beliefs is a team. Teams function in accordance with goals defined by institutions, determined by external indicators of success, and rely on established procedures and reporting mechanisms (Degn et al., 2018). An alternative way to analyze groups of individuals in working contexts is as communities of practice. In opposition to teams, communities of practice tend to define their own aim (Lesser & Storck, 2001) and can be defined as "a collection of people who engage on an ongoing basis in some common endeavor" (Eckert, 2006, p 684), and that "engage in a process of collective learning" (Wenger, 2001, p. 1273). These communities are informally organized and with voluntary membership. Examples include training groups (Fragkiadaki et al., 2013), where participants discover mutual support, explore innovative modes of expression, share experiences, and collaboratively shape their professional identities. In academic settings, example communities of practice include research data managers as professionals situated between librarians and IT personnel (Verbaan & Cox, 2014).

Occupational subcultures are often perceived as having both implicit shared values and explicit practices that manifest these values (Cain, 2003; Trice, 1993). The literature identifies two distinct concepts: professional subcultures, which pertain to a specific profession within an organization, and professional cultures, which transcend the boundaries of the organization (Geert Hofstede, 1998; Guzman et al., 2008; Trice, 1993). The concept of 'profession' and, therefore, of 'professional identities', revolves around the powerful concepts of 'us' and 'them' (Trede et al., 2012). As a result, members of a profession are united by common principles and regulations facilitated by entities like professional associations and career frameworks. Implicit agreements concerning beliefs, standards, values, motives, attributes, experiences, and goals further solidify this cohesion (Ahrens & Chapman, 2007; Chreim et al., 2007; Eason et al., 2018), distinguishing a profession from a community of practice. Because these agreements are shared, professional identities have the ability to transcend institutional contexts (Lammers & Garcia, 2009; Mael & Ashforth, 1992) and even extend beyond national boundaries (Gomez-Mejia, 1984).

The development of a professional identity is associated with the systematic performance of certain tasks as a "constant and relentless achievement" of self-hood (Knights & Clarke, 2014, p. 344). Furthermore, it involves the ability to articulate and communicate one's professional identity effectively and confidently (Eason et al., 2018). Professional identity develops gradually as individuals interact with fellow professionals, gain valuable insights into professional practices, and nurture their personal skills and values within the profession over time (Tan et al., 2017). Structural aspects of professional identities encompass elements such as the organization of training programs and the formation of professional associations (Saskia et al., 2018). On the other hand, attitudinal aspects involve, for example, the encouragement of self-regulation, including

ethical codes, through active involvement in organizations representing the professional sector (Kerr et al., 1977; Norris & Niebuhr, 1984).

A Constructivist Approach to Professional Identities

A professional identity encompasses the perceived traits, characteristics, and values associated with individuals as they engage in their professional roles (Ibarra & Barbulescu, 2010). A well-defined, stable, and secure professional identity empowers individuals to function effectively in their roles (Coen et al., 2010), navigate challenges and uncertainties (Conroy & O'Leary-Kelly, 2014), adapt to workplace changes (Obodaru, 2012), cultivate and maintain social connections (Dutton et al., 2010), and derive meaning from their work (Rosso et al., 2010).

Constructivist approaches to professional identities, such as the narrative identity theory (McAdams & McLean, 2013), recognize the subjective nature of how individuals construct their understanding of themselves as professionals. This construction is shaped by individual histories and diverse themes, including work experiences and career trajectories (Bujold, 2004; Del Corso & Rehfuss, 2011; Saskia et al., 2018; Savickas, 2005). According to this perspective, professional identities are formed through 'self-narratives' (Gergen, 2019) and 'self-constructions' (Guichard, 2009), emerging from personal interpretations and recollections of past events, experiences, and interactions (Cohen, 2006; LaPointe, 2010). Certain themes or patterns surface within the narratives, representing recurring motifs or central aspects of the individual's professional identity. This includes narratives around their career choices, achievements, and challenges. Moreover, the narrative identity theory highlights the importance of agency, suggesting that individuals actively construct their life stories rather than being passive recipients of experiences. These narratives contribute to a sense of professional identity that goes

beyond a mere collection of roles and responsibilities, incorporating personal meaning and values (Cain et al., 2023).

RMAs deal with tasks that require a deep understanding of research processes, funding mechanisms, regulatory requirements, and the broader landscape of academic and research endeavors. They use their knowledge and expertise to ensure that research is conducted effectively and efficiently and that it produces impactful results. These tasks require not only managerial, administrative, and organizational skills but also a solid understanding of the research ecosystem and the ability to work with diverse stakeholders. Therefore, we argue that due to the knowledge-intensive nature of their work, RMAs fit the characteristics of knowledge workers. Affirmations of expertise play a crucial role in shaping the identities of these workers. When an individual claims a specific professional identity, such as being a specialist or a knowledge worker, it imposes a moral expectation on others to recognize and treat them according to the standards associated with that identity. If challenged, these expectations create tensions not only within the individual but also within the broader workplace, particularly in organizations heavily reliant on valuable knowledge workers (Mallett & Wapshott, 2012). The narrative identity approach embraces the multiplicity, complexity, and potential contradictions encountered by knowledge workers facing threats to their personal identity (Bradbury & Miller, 2010). In the context of knowledge workers, the concept of narrative identity notably encompasses the impact of the work performed, as explored by Mallett and Wapshott (2012).

In contrast to objective approaches that focus solely on job descriptions, our study examines a series of thematic building blocks that emphasize various aspects to contextualize and frame professional identities. These identity shapes (Saskia et al., 2018) reflect differences in the significance given to topics proven to be directly related to the

concept and practice of a profession. By drawing from shared narratives, we explore how individuals describe themselves professionally, revealing expressions of their professional identities, consistently performed tasks, interactions with colleagues performing the same tasks, the relevance of training for the fulfillment of those tasks, and the impact of the work performed.

RMAs in the Literature

The existence of a divide between 'general staff' in Higher Education (HE) management and administration was identified in the 1990s by Dobson for Australian institutions (Dobson, 2000). The author examined the role of 'general management and administration staff' and described the apparent antipathy that many members of the academic community had toward them. In fact, academic professionals other than faculty members, often defined as 'support staff', have long been described as 'condemned' to contend for prestige and legitimacy, particularly in HEIs where they are not included as part of the academic staff (Corrall & Lester, 1996).

The existence of an 'occupational gap' between 'general administration and management staff' and academic staff, occupied by RMAs, has been addressed by authors such as Collinson (2006), Whitchurch (2008), and Shelley (2010). According to Collinson's findings (2006), what was initially perceived as a 'putative' boundary turned out to be blurred and permeable. The RMAs that Collinson interviewed recognized the presence of an implicit boundary, but they emphasized the shared culture and overlapping duties and responsibilities. Additionally, Collinson observed that RMAs were also engaging in conventional academic tasks, including teaching, research, and advising research students. Whitchurch introduced the idea of a 'third space' in HEIs, an evolving area that exists between academic and professional domains, primarily accommodating professionals with less rigid boundaries in their roles. The application of the third space

concept offers valuable insights into roles that may emerge within so-called new boundary professional fields. In these, communities of practice reflect structures, roles, discourses and norms that gather elements from the border systems (McMillan et al., 2016). As Whitchurch (2008) suggests, RMAs can be classified as a type of 'blended' professionals, combining aspects of both professional and academic roles in their backgrounds and portfolios. In contrast, 'unbounded' professionals actively seek to expand their roles beyond their designated job descriptions, crossing over from their professional domain into the edges of academic territory. Shelley (2010, p.60) defines this "shifting arena" as "a shared space of tension". The concepts of 'third space' and 'blended professionals' clearly illustrate the constructivist facet of professional identity development, as RMAs actively build their understanding of their identity through interaction with their context and experiences.

Green and Langley's study (2009, p. 17) showed research management as "an embryonic profession struggling to create an identity". According to their survey, a significant number of RMAs felt that they were not entirely understood by either academics or their colleagues in other support services. Despite the fact that the majority of respondents identified themselves with "a profession within their institution" (Green & Langley, 2009, p. 14), they did not feel that their status as professionals was on par with that of finance and human resources staff. The close involvement of RMAs with academics' research, despite their administrative role, was shown to lead to tensions between the two groups, giving rise to issues of identity and credibility. Conversely, some researchers argue that the function of research management and administration should fall within the realm of academic staff tasks (Macfarlane, 2011; Verbaan & Cox, 2014). Macfarlane (2011) discusses the unbundling of 'all-round' academic practice, where certain specialized functions, like research administration, have been assigned to what he

refers to as the 'para-academic' domain. Verbaan and Cox (2014) ascribe this transformation to the impact of NPM in HE since the 1980s. This influence led to the specialization of administrative support functions as a response to growing government-imposed administrative and regulatory requirements on HEIs, exemplified by initiatives like the Research Excellence Framework in the UK.

Whitchurch (2006) pointed out that the terms 'administration' and 'management' not only lack clarity when describing the duties of professional staff but have also been a subject of debate in academic settings. 'Administration' is often associated with undesirable bureaucracy, while 'management' is linked to a perceived erosion of academic autonomy as institutions adapt to competitive markets and government accountability demands. As an alternative, Agostinho et al. (2020) proposed a different designation for RMAs: professionals at the interface of science (PIoSs). Agostinho et al. (2020, p. 21) define that "the responsibilities at the interface of science can occur upstream (of research) – to attract/advocate for/define a strategy for research funding, projects, and partnerships (with both academia and industry); at the research level – to support the research activity itself (e.g. post-award management, technological platform management, ethical compliance management, intellectual property management, researchers development); and downstream (of research) – to pay back society the investment made (e.g. knowledge and technology transfer and commercialization, outreach and science communication)". Santos et al. (2021) further expanded this definition to include those professionals performing the same set or related tasks within research funding organizations. Therefore, the tasks RMAs perform can be generally organized in the following categories: (i) R&I policies development and funding instruments implementation; (ii) pre- and post-award operations, management, and support; and (iii) knowledge exchange, dissemination, and valorization. Also, RMAs

offer an 'interface function' by being facilitators and enablers of the research endeavor (Csite & Virag, 2023). More recently, de Jong (2023) has proposed the incorporation of RMAs within the expanded characterization of professional staff, referring to them as university employees with degrees who have the primary responsibility for shaping, sustaining, and evolving the social, digital, and physical infrastructures that facilitate education, research, and knowledge exchange.

The self-perception and identity-forming of RMAs have been addressed by authors such as Poli, Zsar, and Oliveira (2023). In their study, these authors examined various definitions and perceptions of research management and administration from individuals both from within and outside the profession (such as teachers and students) to gain a wider understanding of the field. In the face of the above, potential threats to RMAs' professional identity notably include misconceptions about their role and lack of recognition of their value within organizations. Other actors of R&I ecosystems may perceive them as simply data entry clerks or record keepers, failing to recognize the complexity and expertise involved in their work. This lack of understanding can lead to undervaluing their contributions and limiting their career advancement opportunities.

The RMA professionalisation continuum has been addressed in recent literature, e.g., by Williamson et al. (2020, 2023). In their papers, these authors problematize what the professionalization discourses mean for research management. As an example of a professionalization initiative, the Southern Africa Research and Innovation Management Association (SARIMA) developed a Professional Competency Framework (PCF) for research management that fits into a macro impetus towards professionalization. It can be implemented to guide the professional development of RMAs at various levels of their career and responsibility (operational, managerial, and leadership). In another example, an RMA competency-based training needs assessment scoping tool has been developed

by Nembaware et al. (2022). The study highlighted differences in RMA training and experience between Africa and the UK, thereby potentially informing competency-based training for RMAs toward professionalization. The research management transferable skills articulated in this PCF have been further discussed by Williamson & Dyason (2023) in light of the recent COVID-19 pandemic and what RMAs offer as 'humans' and not only knowledge experts. Their paper highlights the need to discuss not only what it means to 'know' and 'do' within a profession but also what it means to 'be' a professional. Similarly, Cain et al. (2023) addressed the challenges to professional identities of Higher Education teachers during COVID-19 times. Such a discussion is becoming increasingly relevant considering the evolution of artificial intelligence and its impact on the technical side of professional competencies, and on the awareness of the importance of soft skills.

Method

The researchers adopted a constructivist approach (Braun & Clarke, 2019; Pinch & Bijker, 1984) to gain insights into how RMAs perceive their professional domain and identities. This is aligned with narrative professional identities being constructed through individuals' experiences, reflections, and stories about their work. Both constructivism and 'narrative identity' emphasize that knowledge is actively built through experience and interaction with the world. Both approaches acknowledge the importance of meaning-making. Individuals construct narratives about their professional journeys, assigning meaning to their experiences and shaping their professional identity. Semi-structured interviews were conducted between January and July 2022 with RMAs in research-performing organizations (RPOs), namely HEIs, and in non-RPOs, for example, science funding agencies, mainly located in the USA and Europe (recognized as some of the more mature regions in the field of research management and administration). The sampling

approach for selecting interviewees was purposive and non-probabilistic. The participants were chosen based on the following criteria relevant to the study: represent a diverse range of job profiles, roles, and seniority in research management and administration, located in different countries, and available to be interviewed. Semi-structured interviews allowed for flexible and comprehensive narratives to be gathered through a collaborative process of meaning construction, following the principles of the 'active interview' model (Holstein & Gubrium, 1995). The objective was to encourage interviewees to express and contemplate their perspectives actively. This approach facilitated the exploration of predefined themes while also allowing new priorities and focal points raised by the interviewees to be addressed during the interview (Bryman, 2012; Saunders et al., 2009). Each interview yielded an in-depth account, representing a comprehensive articulation of the views held by informed subjects (Paton & Andrew, 2019).

Eighteen respondents (72% female; from 25 to 65 years old) were interviewed, originating from Australia (one), Spain (one), Portugal (five), Hungary (two), UK (three) and USA (six). Eight and ten interviewees originated from RPOs and non-RPOs, respectively. The interviews lasted between 30 and 60 minutes and were digitally recorded, then transcribed, anonymized, and verified with the interviewees for accuracy. The transcripts were scrutinized using deductive thematic analysis (Fereday & Muir-Cochrane, 2006) and under the 'narrative identity' theoretical lens. The thematic building blocks of the shared narratives were generated from codes consisting of constructs related to the concepts of profession and professional identities, informed by the extant literature explored in previous sections (Eason et al., 2018; Foster, 2012; Knights & Clarke, 2014; Mallett & Wapshott, 2012; Saskia et al., 2018; Tan et al., 2017), namely: (i) expressions of RMAs' professional identities (communication of their role as professionals), (ii) contribution to the broader research enterprise (namely, to R&I ecosystems and their

employers´ mission), (iii) relevance of training to systematically perform specialized tasks, and (iv) interactions with colleagues performing the same tasks (in the workplace, and involvement in associations/networks). Inter-subjective reliability was assured by promoting consistency and agreement among interviewers in their interpretation and coding of the interview data. Following consensus among the research team regarding themes and codes, the lead author conducted deductive thematic analysis. This involved examining transcripts and identifying data that aligned with the predefined codes.

Findings

The academic qualification areas of the interviewees were quite varied and included, for example, Public Administration, Economics, and Chemical Engineering. Experience prior to research management and administration was also varied and included, for example, working at a bank, at a non-profit organization in the environmental area, and in science (as a researcher). The interviewees' varied academic and professional background reflects the picture observed for RMA practitioners worldwide (Kerridge et al., 2023). On the one hand, the increased 'projectification' of public R&I and the consolidation of the NMP paradigm in HE are thought to contribute to the current demand surge for RMAs. On the other hand, the general lack of dedicated academic courses has traditionally led to the hiring of RMAs whose qualifications or experience fit, even if often only partially, some of the tasks that RMAs typically perform (e.g., research proposal development, financial and administrative management of research projects, research infrastructure management). Nevertheless, it is worth mentioning that RMA-specific accreditation and some master courses exist, particularly in the USA (Ritchie et al., 2023). In another example, SARIMA has established the International Professional

Recognition Council as an autonomous body to award professional recognition and developed a pan-African professional recognition programme for RMAs.

The RMA's narratives uncover the driving forces that attract individuals to the field of research management and administration, as illustrated in the following quote that confirms other findings about routes into the profession (Dutta et al., 2023):

I saw a job posting come through and (…) I was like, this is like the one job I would actually apply for. And I knew that I was interested. I really liked it. I wanted it, but I already had a job. And then I was interviewed and did more research on my own and I decided I really wanted it and so luckily I landed it. (public university, USA)

Job titles mentioned include, for example, Senior Research Administrator, Associate Director of Research Services (including "working closely with Pro Vice Chancellors"), Director of Sponsored Programs, Head of the Research Funding Affairs unit, and Project Manager. This shows the wide scope of the positions that RMAs can take, depending on the organizational context and on their responsibility level (operational, managerial, leadership). Nevertheless, the study participants coherently elaborated on their professional self-concept. An example is presented next.

Yeah, I definitely think that it is a profession. We have a very unique skill set, but in a knowledge base that you have to have. You can't just pop someone in and say, go. They have to be trained. They have to understand the policies, regulations that go along with everything that we do. (public university, USA)

Yet, some interviewees showed they were unaware of the existence of a research management and administration profession:

I actually don't believe that most of us, if even any of us, know that there is a name for what we do. (public science and innovation funding organization, Portugal)

Or described their professional occupation as research 'facilitator' or 'enabler' as discussed by Csite & Virag (2023):

I don't think I am doing research management; I think I am facilitating research management… In the broadest possible sense, I help manage research, but in a narrow field of research management in that you are providing day-to-day support for the research lifecycle and providing advice, so I would say maybe I am a research manager at the national level rather than at the institutional level, possibly?! (public research infrastructure management organization, UK)

The familiarity of RMAs with science and research was mentioned as a common trait:

…personally, I consider myself as a researcher because that's my background… but I also view myself as an administrator. (public science and innovation funding organization, Portugal)

The RMA profession has, in fact, evolved significantly in recent years, although significant professional maturity differences exist among countries (Kerridge et al., 2023). The interviewed practitioners themselves recognize this:

There is more kind of a recognition of the need of the profession. This is starting to be considered a profession and not someone who was a researcher that can do this part-time or not. There is more recognition. (private science funding and performing organization, Portugal)

The existence of cultural barriers in public administrations is mentioned to inhibit greater professional proximity between RMAs at RPOs and non-RPOs:

…it's like the frontier between being on the hunt for funding and being the ones getting the funding. Sometimes it might create this barrier, and it shouldn't exist. (public science and innovation funding organization, Portugal)

But the sense of being part of the same endeavor is clear:

I've never thought of it that way, and I think I would because they have the same regulations, just on the other side of the table…ultimately what we want is that research completed and how to get it completed. (public university, USA)

The interviewees showed a full awareness of the importance of their institutions' role in the overall R&I ecosystem. There was a clear understanding of where they belong in terms of the wider societal space:

…works right between businesses and research institutions, so bridging those two universes is really, really important. (public science and innovation funding organization, Portugal)

The same is true for their sense of relative importance to the fulfillment of their employers' mission in the context of R&I ecosystems:

I do feel that we are very important to our mission as an institution. (public science and innovation funding organization, Portugal)

Example reported systematic tasks span from science policies and funding design to pre-award and post-award activities:

… I worked at [private science funding foundation] for a long time, and this is where I had most of my relationships with the research management community in our grant funding area, and that includes a range of things such as scheme design, system design, devising policies and audit insurance. (private science funding foundation, UK)

The development of specialized skills and competencies requires both academic and practical apprenticeship. Most of the needed competencies and skills are mentioned by the interviewees to be learned by doing:

[RMAs learn] …mainly when they are doing their job. (science policy organization, Hungary)

Although some generic training is usually provided by employers, a need for specific training is mentioned, resonating findings from previous studies, e.g. (Zsár, 2023) and (Ritchie et al., 2023):

The training opportunities within the regional government are good, but they are designed for general administrative purposes, but they are open and flexible, so I can attend my own courses if I want, … and if they don't encourage you, at least they are happy if you do it. (science policy organization, Spain)

Soft and transferable skills are particularly mentioned (e.g., "assertiveness, engagement, leadership in general", "time management", "conflict resolution", "how to engage with networks"), echoing the study by Williamson and Dyason (2023), but also some specific technical skills such as "project management", "how the funding system works", and "ethics, gender, and responsible innovation".

The existence of academic courses in areas relevant to RMA was identified by one interviewee only, based in the USA:

…that's where research administration is, and so we now have a bachelor's program. There are master's programs, … because people all over the world do this job, and so it's similar. (public university, USA)

Research management and administration practitioners interact on an ongoing basis with colleagues performing the same tasks to deepen their knowledge and expertise. The importance of this interaction was stressed by the interviewees:

I think [interaction with colleagues] is very important and every time I go and then I learn new things, and you know, if you don't get out of your door, you don't learn new things. (higher education and science policy organization, USA)

The exchange of knowledge and practices occurs at the informal level by building communities of practice as needed, characterized by a low degree of formalized entry-level requirements, 'bottom-up'-determined composition, and non-formalized inclusion and exclusion criteria:

…but there are others, not associations, but other groups that are very much focused around like research management itself, for instance the Pure[1] UK user group. (public university, UK)

But also at a more formal level:

You know, you turn up at a research management conference and you think wow, this whole new world that I had no idea existed?... they really suddenly understand that their skill set is a research management skill set and that they're part of a broader profession where they can get support for what they want to do. (public science funding organization, Australia)

Most of the interviewees showed awareness about existing research management and administration professional associations, whose importance to professional development is generally acknowledged:

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[1] a commercial research management software system

…it is as important for research managers as for scientists to be a member of a network. (science policy organization, Hungary)

In particular, the importance of exchanging practices and knowledge between RMAs at RPOs and at non-RPOs was mentioned:

I do feel like that there should maybe be some… I don't know … an annual meeting or some sort of database for ideas and practices, but it should be something that happens more often in a more structured way. (private science funding and performing organization, Portugal)

Sharing goals, the need to connect with peers for identity reasons, learning, and getting support are examples of reasons mentioned for joining a professional association:

And so I think having that support network from the professional associations is as important as the professional learning aspect of it. (public university, USA)

These findings are discussed next through the 'narrative identity' theoretical lens.

Discussion

The concept of narrative professional identities is associated with the concurrent (i) ability to effectively communicate one´s role as a professional (Eason et al., 2018); (ii) awareness of the impact of the work performed (Foster, 2012; Mallett & Wapshott, 2012); (iii) consistent performance of specific tasks (Knights & Clarke, 2014); (iv) acquisition of specific skills and competencies through professional development activities (e.g., training) (Saskia et al., 2018); and (v) systematic interaction with colleagues performing the same tasks (at the workplace and through professional associations) (Tan et al., 2017).

Using narrative identity theory as the main theoretical lens involves understanding how RMAs craft and interpret their professional stories. The depth that respondents provided us in their stories demonstrates that narrative builds over time and as people share their experiences with others (McLean et al., 2007). This storytelling of their situations allowed our participants to reimagine their identities as RMAs. The narratives shed light on the motivations driving individuals to research management and administration. Their entry into this occupation can be rationalized by either 'journeying', i.e., changing jobs as new opportunities arise, or 'exploring', i.e., actively searching for a job that meets their expectations, mostly centered on intellectual fulfillment (e.g., "The reason why I went to [organization] was that I was quite excited about Digital Technology…"), but also including personal life trajectories (e.g., "So when I wanted to move out of the bank, I specifically set myself a target of getting a job at [University]...(based at their hometown)"). Similar behavior patterns were found by Bloom et al. (2021), who labeled professionals as 'discerners' or 'explorers' in a study concerning how 'called' professionals construct narrative identities.

The interviewed RMAs' professional identities are shaped by the stories they tell about their commitment to promote the broader research enterprise, their roles, expertise, tasks, and occupational groups. The interviewees organized and interpreted their experiences into a coherent story, reflecting on how their roles contribute to the broader research enterprise, e.g., by creating "...a friendlier and more efficient ecosystem that works for everyone…" or "...being a champion of research in general…". Their narratives highlight their passion for science/research facilitation and their specific and specialized contributions to bridging the science policy-making and funding realm and the research performing, administration, and management realm. Deriving meaning from their work, RMAs show a well-defined, stable, and secure professional identity (Rosso et al., 2010).

The stories that RMAs convene about their professional identity are shaped by external factors, such as R&I funding environments and changes in the HE ecosystem, namely the neo-liberal paradigm, and managerialism. The increased focus by science funding agencies on projects as vehicles of R&I activities promoted by public policies and by HEIs on external funding sources driving their R&I activity might encourage groups of RMAs to display team-like characteristics, as has been posited in relation to researchers (Degn et al., 2018). In fact, in RPOs, there is a tendency to set up temporary groups of professionals gathered for the sole purpose of executing a set of actions with specific objectives (i.e., a project, a program, or a portfolio of projects and/or programs). These temporary teams include researchers, technicians, and administrators and may include (research) (project) management professionals. This is evidenced in the RAAAP-2 survey results (Kerridge et al., 2023), showing that organizational settings for RMAs include 'across units', 'hybrid units,' 'temporary units', temporary organizations ('programs,' 'projects'), 'across institutions' and 'hybrid institutions.' Nevertheless, the increased focus on projects as vehicles of R&I activities by science funding agencies could make it more difficult for RMAs to develop a consistent job identity caused by prevailing short-term relationships and interactions with researchers and other key actors of R&I ecosystems.

Although communities of practice are reported by the interviewees (e.g., "…other groups that are very much focused around like research management itself …"), the narratives clearly articulate systematic tasks and routines involving formalized processes characteristic of professions (e.g., "…my day-to-day job is actually to receive, review, negotiate, and approve all of the grant agreements…"; "…includes a range of things such as scheme design, system design, devising policies and audit insurance"). In particular, the narratives evidence a professional culture that transcends the boundaries of the

organization (e.g., "…maybe I am a research manager at the national level rather than at the institutional level…"), as well as national boundaries (Poli, Oliveira, et al., 2023). Nevertheless, one view would be that each of the occupational groups involved in research management and administration (e.g., pre-award and post-award) has a different subculture. This can result in varying, and potentially even incompatible, perspectives on organizational issues, leading to breakdowns in communication and collaboration, which must be avoided (Verbaan & Cox, 2014).

Some of the interviewees' narratives embody a sense of identity 'crisis' (e.g., "… it was very funny because I knew that I wasn't a researcher, and I knew I wasn't administrative", or "…personally, I consider myself as a researcher because that's my background… but I also view myself as an administrator."). This lack of comprehension is positioned to stem from a broader uncertainty about the specific role and function of these professionals, as found by Martin et al. (2021) in the subset of professionals dedicated to knowledge and technology brokerage at HEIs. In their study, Martin et al. found that the participants expressed a pervasive sense that their roles and value were not fully understood within the institutional systems. Moreover, in their external interactions, they often resorted to using phrases like "I'm from the university" or similar expressions, feeling that their job titles failed to fully capture the essence and scope of their responsibilities to those they engaged with. Within their institutions, they perceived themselves as existing in a middle ground, embodying an uncertain role that straddled different levels and types of staff.

The interview data shows that research management and administration can be, in fact, performed in related areas – both at RPOs and non-RPOs. A sense of belonging to the same endeavor is clear, although the existence of cultural barriers in public

administrations is identified as a major barrier. We posit that professionalization can contribute decisively to overcoming it, as suggested by Santos et al. (2021, 2023).

The narratives also consider interpersonal relationships. The interviewed RMAs highlight collaboration with peers ("…if you don't get out of your door, you don't learn new things."), and successful group dynamics ("…phone-a-friend moment and shoot an email out and say hey, has anybody seen this lately?"). They expressed professional associations/networks as key to facilitating the development of social capital (Poli, 2018a), i.e., relationships that matter and make the difference in the attainment of individual and collective goals (Dasgupta & Serageldin, 1999). This is clear in statements such as, for example: "…it is as important for research managers as for scientists to be a member of a network" and "…I joined was because I was a little bit at sea, and I thought I needed to speak to other people who know what they're talking about." Professional associations provide explicit agreements regarding their profession's goals, values, and standards and typically provide continuous professional development opportunities. They play a key role as accrediting bodies for professional qualifications (Poli et al., 2014), ensuring the quality of service and self-regulation of the profession from an inter-institutional and international perspective, and play a key role in the process of the development of professional identities of RMAs (Hockey & Allen-Collinson, 2009; Poli, 2018b). This has been shown, e.g., by Zsár (2023) and by Ritchie et al. (2023), to be the case with professional associations/networks in the research management and administration area.

The role of RMAs is undergoing a significant transformation as research organizations face increasing complexity (e.g., in addressing societal challenges), competitiveness (in a neoliberal context), and global interconnectedness. These professionals are no longer considered mere administrative support staff but rather strategic partners essential for

optimizing research outcomes and navigating the intricate landscape of funding, collaboration, and societal impact. The increasing demand for professionalized staff in science-related organizations and the expanding global reach of research endeavors are expected to drive a more formalized and standardized recognition of research management and administration as a distinct profession (Zsár, 2023). This will serve as a catalyst for enhancing the visibility, credibility, and career advancement opportunities for these individuals. It also has the potential to promote the development of standardized professional development programs, ethical guidelines, and recognition systems that elevate the overall quality and impact of research management and administration practice. The realization of this formalized recognition will necessitate the implementation of supportive public policies that address key areas such as: (i) curricula development and accreditation of specialized education and training programs; (ii) creation of clear career paths and promotion opportunities, fostering their retention and growth within the profession; (iii) facilitation of establishment and strengthening of professional associations; and (iv) allocation of funding for research on research management and administration practices, enabling the development of evidence-based strategies for optimizing their effectiveness and impact.

Conclusion

Group-based identities are formed and shared among individuals who possess certain common traits. What RMAs narrate as distinct and central features of their professional group can be divided into two areas: their contribution to the broader research enterprise and how this is related to their practice, i.e., the roles and tasks they perform in that context. The impact RMAs aim to achieve involves contributing to the efficient functioning of R&I ecosystems, facilitating impactful R&I collaborations, and playing a

role in the strategic advancement of science and technology. This is supported by their social integration in practitioners' communities and by coherent professional development initiatives.

The interviewees reported systematic tasks spanning from science policymaking and research funding design to pre-award and post-award activities. This wide range of activities is also noted by Zink et al. (2022, p.2), "the research administration workforce has diversified in several directions with formalized, specialized and advanced professional roles and new roles for new services, such as research development". In this context, the collected data show that relationships, mutual support, reciprocities (i.e., social capital), and systemic training opportunities promoted and supported by professional associations are essential for solid professional identity construction.

A sense of self-understanding and purpose emerged as the interviews progressed, developing into coherent professional narratives. The interviewees actively developed their work paths rather than being passive recipients of experiences, showing strong agency. The interviewees' narratives express stories of dynamic professional trajectories, mostly demand-driven by an NPM context, mixed with personal motives, goals and beliefs.

RMAs, as knowledge workers, verbalized their specific expertise and skill set, shaping their identity around science and its role in society. Examples include the 'emotional' connection of former researchers with science, driving career shifts that ensure some sort of continuity in this regard, and a strong sense of research management and administration as a society- and mission-oriented job.

The narratives show research management and administration as an interface profession from several points of view. On the one hand, at the interface between science

and society. On the other hand, at the interface between academics and professional staff, namely 'general' managers and administrators. The existence of 'tensions' and 'ambiguities' in professional identity are clear and derive essentially from identity doubts and insecurity as to where RMAs fit within diverse organizational structures. Professional associations are identified as key to the development of a collective identity, a 'home' where these practitioners can share concerns, share knowledge, and develop the skill set required at the workplace.

Potential threats to RMAs' professional identity include misconceptions about their role, lack of recognition of their added value, and the emergence of work and organizational subcultures. This can be mitigated by their effective incorporation into research management and administration professional associations. Namely by: providing clear and comprehensive job descriptions and career pathways; highlighting the value that RMAs bring to R&I; promoting the role of RMAs as strategic partners in R&I; developing and advocating for standardized professional competencies; promoting the use of professional certifications; promoting the exchange of best practices and knowledge across different organizations; organizing events and conferences that bring together RMAs from different backgrounds; and advocating for policies that promote equity and inclusion in the research workforce.

The study findings suggest the importance of policy interventions that support the professionalization, recognition, and development of RMAs. By implementing policies that address these implications, policymakers can contribute to a more robust and effective research ecosystem that values the contributions of RMAs in advancing knowledge and innovation. For example, based on the study's findings on the dynamic professional trajectories of RMAs, policymakers can prioritize the provision of professional development opportunities for RMAs (e.g. academic qualifications). Also,

the study highlights the need for standardized professional competencies for RMAs. Policymakers worldwide can leverage the experience of organizations such as SARIMA and work towards establishing industry standards and guidelines for the competencies required for effective research management and administration roles. Also, policymakers can collaborate with academic institutions and research organizations to ensure clear and comprehensive job descriptions and career pathways for RMAs. This clarity can help RMAs navigate their professional trajectories and contribute effectively to research and innovation endeavors.

Overall, it is expected that the growing evolution of research performing and funding organizations towards more professionalized staff and the current focus on globalization of the research endeavor will lead to a worldwide formalized and consistent recognition of research management and administration as a profession.

From a theoretical perspective, the study advances understanding of RMA professional identity, highlighting challenges, opportunities, and the role of social capital in research outcomes. Applying narrative identity theory sheds light on how RMAs construct their identities and leverage networks for effectiveness. The research findings underscore RMAs as a distinct professional group and the need for specialized skills. It also explores the impact of neoliberal forces on research management and the importance of professionalizing the RMA role.

The use of a narrow sample of interviews in terms of the total universe of potential interviewees is a limitation of this study. However, the effort to include subjects of different roles representing RPOs and non-RPOs was successful. As with all constructivist approaches, limitations apply with regard to the proposed explanatory model and related interpretations and choices made by the researchers. Although this

study identifies a number of narrative themes that support the construction of RMA identities, it by no means claims that this is an exhaustive or conclusive list.

Future research is invited to further refine and contribute to this list of narrative themes and further validate the underlying factors of narrative identity construction in RMAs. Also, follow-up studies should broaden the cohort of interviewees and focus more deeply on the reasons behind the self-distinction of professional identities within RMAs. Additionally, future work could include interviewing leaders at the organizations where RMAs work in order to contrast their perspective on the RMA profession with that of RMA practitioners.

Conflict of interest statement

On behalf of all authors, the corresponding author states that there is no conflict of interest.

References

Agostinho, M., Moniz Alves, C., Aresta, S., Borrego, F., Borlido-Santos, J., Cortez, J.,
Lima Costa, T., António Lopes, J., Moreira, S., Santos, J., Trindade, M., Varela,
C., & Vidal, S. (2020). The interface of science: the case for a broader definition of

research management. *Perspectives: Policy and Practice in Higher Education*, *24*(1), 19–27. https://doi.org/10.1080/13603108.2018.1543215

Ahrens, T., & Chapman, C. S. (2007). Management accounting as practice. *Accounting, Organizations and Society*, *32*(1–2), 1–27. https://doi.org/10.1016/j.aos.2006.09.013

Bentley, S. V, Peters, K., Haslam, S. A., Greenaway, K. H., & Bentley, S. V. (2019). *Construction at Work : Multiple Identities Scaffold Professional Identity Development in Academia*. *10*(March), 1–13. https://doi.org/10.3389/fpsyg.2019.00628

Berkovich, I., & Wasserman, V. (2019). Exploring narratives of non-faculty professionals in neoliberal higher education: a cultural appropriation perspective on librarians. *Studies in Higher Education*, *44*(6), 1039–1051. https://doi.org/10.1080/03075079.2017.1413081

Bloom, M., Colbert, A. E., & Nielsen, J. D. (2021). Stories of Calling: How Called Professionals Construct Narrative Identities. *Administrative Science Quarterly*, *66*(2), 298–338. https://doi.org/10.1177/0001839220949502

Bradbury, J., & Miller, R. (2010). Narrative Possibilities: Theorizing Identity in a Context of Practice. *Theory & Psychology*, *20*(5), 687–702. https://doi.org/10.1177/0959354310369611

Braun, V., & Clarke, V. (2019). Reflecting on reflexive thematic analysis. *Qualitative Research in Sport, Exercise and Health*, *11*(4), 589–597. https://doi.org/10.1080/2159676X.2019.1628806

Brown, A. D., & Lewis, M. A. (2011). Identities, discipline and routines. *Organization*

Studies, *32*(7), 871–895. https://doi.org/10.1177/0170840611407018

Bryman, A. E. (2012). *Social Research Methods, 4th Edition*.

Bujold, C. (2004). Constructing career through narrative. *Journal of Vocational Behavior*, *64*(3), 470–484. https://doi.org/10.1016/j.jvb.2003.12.010

Cain, M. (2003). The Two Cultures? Librarians and Technologists byedited by Mark Cain The Two Cultures ? Librarians and Technologists. *The Journal of Academic Librarianship, 29*(3), 177–181.

Cain, M., Campbell, C., & Coleman, K. (2023). 'Kindness and empathy beyond all else': Challenges to professional identities of Higher Education teachers during COVID-19 times. *Australian Educational Researcher*, *50*(4), 1233–1251. https://doi.org/10.1007/s13384-022-00552-1

Campbell, D. R. L. (2010). *The role and development of the research administration profession in higher education* (D. M. Pavel (ed.); Issue May). Washington State University.

Canolle, F., & Vinot, D. (2021). What Is your PhD Worth? The Value of a PhD for Finding Employment outside of Academia. *European Management Review*, *18*(2), 157–171. https://doi.org/10.1111/emre.12445

Chreim, S., Williams, B. E. (Bernie), & Hinings, C. R. (Bob). (2007). Interlevel Influences on the Reconstruction of Professional Role Identity. *Academy of Management Journal*, *50*(6), 1515–1539. https://doi.org/10.5465/amj.2007.28226248

Coen, S. E., Bottorff, J. L., Johnson, J. L., & Ratner, P. A. (2010). A relational conceptual framework for multidisciplinary health research centre infrastructure.

Health Research Policy and Systems, *8*, 1–10. https://doi.org/10.1186/1478-4505-8-29

Cohen, L. (2006). Remembrance of things past: Cultural process and practice in the analysis of career stories. *Journal of Vocational Behavior*, *69*(2), 189–201. https://doi.org/10.1016/j.jvb.2006.02.002

Collinson, J. A. (2006). Just "non-academics"?: Research administrators and contested occupational identity. *Work, Employment and Society*, *20*(2), 267–288. https://doi.org/10.1177/0950017006064114

Conroy, S. A., & O'Leary-Kelly, A. M. (2014). Letting Go and Moving On: Work-Related Identity Loss and Recovery. *Academy of Management Review*, *39*(1), 67–87. https://doi.org/10.5465/amr.2011.0396

Corrall, S., & Lester, R. (1996). Professors and professionals: On changing boundaries. *Working in Higher Education*, *August*, 84–100.

Csite, B., & Virag, Z. (2023). *D1.1 Preliminary report on ERA-wide landscape*. http://dx.doi.org/10.13140/RG.2.2.19039.02723

Dasgupta, P., & Serageldin, I. (1999). Social capital. In P. Dasgupta & I. Serageldin (Eds.), *Social Capital: A Multifaceted Perspective* (Issue September). The World Bank. https://doi.org/10.1596/0-8213-4562-1

de Jong, S., & del Junco, C. (2023). How do professional staff influence academic knowledge development? A literature review and research agenda. *Studies in Higher Education*, 1–24. https://doi.org/10.1080/03075079.2023.2258155

Degn, L., Franssen, T., Sørensen, M. P., & de Rijcke, S. (2018). Research groups as communities of practice—a case study of four high-performing research groups.

Higher Education, *76*(2), 231–246. https://doi.org/10.1007/s10734-017-0205-2

Del Corso, J., & Rehfuss, M. C. (2011). The role of narrative in career construction theory. *Journal of Vocational Behavior*, *79*(2), 334–339. https://doi.org/10.1016/j.jvb.2011.04.003

Dobson, I. R. (2000). 'Them and Us'-General and non-general staff in higher education. In *Journal of Higher Education Policy and Management* (Vol. 22, Issue 2). ABI/INFORM Collection.

Dutta, M., Oliveira, C., Fischer, M., & Kerridge, S. (2023). Routes into Research Management and Administration. In *The Emerald Handbook of Research Management and Administration Around the World* (pp. 125–140). Emerald Publishing Limited. https://doi.org/10.1108/978-1-80382-701-820231012

Dutton, J. E., Roberts, L. M., & Bednar, J. (2010). Pathways for Positive Identity Construction at Work: Four Types of Positive Identity and the Building of Social Resources. *Academy of Management Review*, *35*(2), 265–293. https://doi.org/10.5465/amr.35.2.zok265

Eason, C. M., Mazerolle, S. M., Denegar, C. R., Burton, L., & Mcgarry, J. (2018). Validation of the Professional Identity and Values Scale Among an Athletic Trainer Population. *Journal of Athletic Training*, *53*(1), 72–79. https://doi.org/10.4085/1062-6050-209-16

Eckert, P. (2006). Communities of Practice. In *Encyclopedia of Language & Linguistics* (pp. 683–685). Elsevier. https://doi.org/10.1016/B0-08-044854-2/01276-1

Farquhar, S. (2012). Narrative Identity and Early Childhood Education. *Educational Philosophy and Theory*, *44*(3), 289–301. https://doi.org/10.1111/j.1469-

5812.2010.00656.x

Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating Rigor Using Thematic

Analysis: A Hybrid Approach of Inductive and Deductive Coding and Theme

Development. *International Journal of Qualitative Methods*, *5*(1), 80–92.

https://doi.org/10.1177/160940690600500107

Ford, M. T. (2012). Job-occupation misfit as an occupational stressor. *Journal of

Vocational Behavior*, *80*(2), 412–421. https://doi.org/10.1016/j.jvb.2011.10.004

Foster, K. (2012). Work, narrative identity and social affiliation. *Work, Employment and

Society*, *26*(6), 935–950. https://doi.org/10.1177/0950017012458024

Fowler, N., Lindahl, M., & Sköld, D. (2015). The projectification of university research.

International Journal of Managing Projects in Business, *8*(1), 9–32.

https://doi.org/10.1108/IJMPB-10-2013-0059

Fragkiadaki, E., Triliva, S., Balamoutsou, S., & Prokopiou, A. (2013). The path towards

a professional identity : An IPA study of Greek family therapy trainees.

Counselling and Psychotherapy Research, *13*(4), 290–299.

https://doi.org/10.1080/14733145.2013.768287

Geert Hofstede. (1998). Identifying organizational subcultures: an empirical approach.

Journal of Management Studies, *35*(1), 1–12.

Gergen, K. J. (2019). The Social Construction of Reality. *Social Constructivism as

Paradigm?*, *20*(2), 259–272. https://doi.org/10.4324/9780429467714-17

Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P., & Trow, M.

(2010). *The New Production of Knowledge: The Dynamics of Science and

Research in Contemporary Societies*. SAGE Publications Ltd.

https://doi.org/10.4135/9781446221853

Gomez-Mejia, L. R. (1984). Effect of Occupation on Task Related, Contextual, and Job

Involvement Orientation: A Cross-Cultural Perspective. *Academy of Management*

Journal, *27*(4), 706–720. https://doi.org/10.2307/255874

Green, John; Langley, D. (2009). *Professionalising Research Management*.

Grimaldi, R., Kenney, M., & Piccaluga, A. (2021). University technology transfer,

regional specialization and local dynamics: lessons from Italy. *Journal of*

Technology Transfer, *46*(4), 855–865. https://doi.org/10.1007/s10961-020-09804-7

Guichard, J. (2009). Self-constructing. *Journal of Vocational Behavior*, *75*(3), 251–258.

https://doi.org/10.1016/j.jvb.2009.03.004

Guzman, I. R., Stam, K. R., & Stanton, J. M. (2008). The occupational culture of IS/IT

personnel within organizations. *ACM SIGMIS Database: The DATABASE for*

Advances in Information Systems, *39*(1), 33–50.

https://doi.org/10.1145/1341971.1341976

Hockey, J., & Allen-Collinson, J. (2009). The sensorium at work: The sensory

phenomenology of the working body. *Sociological Review*, *57*(2), 217–239.

https://doi.org/10.1111/j.1467-954X.2009.01827.x

Holstein, J., & Gubrium, J. (1995). *The Active Interview*. SAGE Publications, Inc.

https://doi.org/10.4135/9781412986120

Ibarra, H., & Barbulescu, R. (2010). Identity As Narrative: Prevalence, Effectiveness,

and Consequences of Narrative Identity Work in Macro Work Role Transitions.

Academy of Management Review, *35*(1), 135–154.

https://doi.org/10.5465/amr.35.1.zok135

Ito, S., & Watanabe, T. (2021). Multilevel analysis of research management professionals and external funding at universities: Empirical evidence from Japan. *Science and Public Policy*, *47*(6), 747–757. https://doi.org/10.1093/scipol/scaa074

Kerr, S., Von Glinow, M. A., & Schriesheim, J. (1977). Issues in the study of "professionals" in organizations: The case of scientists and engineers. *Organizational Behavior and Human Performance*, *18*(2), 329–345. https://doi.org/10.1016/0030-5073(77)90034-4

Kerridge, S., Ajai-Ajagbe, P., Kiel, C., Shambrook, J., & WAKEFIELD, B. (2023). *RAAAP-2 Datasets (17 linked datasets)*. https://doi.org/10.6084/m9.figshare.18972935.v2

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. https://doi.org/10.1177/0170840613508396

Laine, P. M., Meriläinen, S., Tienari, J., & Vaara, E. (2016). Mastery, submission, and subversion: On the performative construction of strategist identity. *Organization*, *23*(4), 505–524. https://doi.org/10.1177/1350508415575629

Lammers, J. C., & Garcia, M. A. (2009). Exploring the Concept of "profession" for organizational communication research: Institutional influences in a veterinary organization. *Management Communication Quarterly*, *22*(3), 357–384. https://doi.org/10.1177/0893318908327007

LaPointe, K. (2010). Narrating career, positioning identity: Career identity as a narrative practice. *Journal of Vocational Behavior*, *77*(1), 1–9. https://doi.org/10.1016/j.jvb.2010.04.003

Lesser, E. L., & Storck, J. (2001). Communities of practice and organizational performance. *IBM Systems Journal*, *40*(4), 831–841. https://doi.org/10.1147/sj.404.0831

Macfarlane, B. (2011). The Morphing of Academic Practice: Unbundling and the Rise of the Para-academic. *Higher Education Quarterly*, *65*(1), 59–73. https://doi.org/10.1111/j.1468-2273.2010.00467.x

Mael, F., & Ashforth, B. E. (1992). Alumni and their alma mater: A partial test of the reformulated model of organizational identification. *Journal of Organizational Behavior*, *13*(2), 103–123. https://doi.org/10.1002/job.4030130202

Mallett, O., & Wapshott, R. (2012). Mediating ambiguity: Narrative identity and knowledge workers. *Scandinavian Journal of Management*, *28*(1), 16–26. https://doi.org/10.1016/j.scaman.2011.12.001

Martin, L., Ibbotson, P., & Martin, L. (2021). *Studies in Higher Education Boundary spanning as identity work in university business engagement roles*. https://doi.org/10.1080/03075079.2019.1688281

McAdams, D. P., & McLean, K. C. (2013). Narrative Identity. *Current Directions in Psychological Science*, *22*(3), 233–238. https://doi.org/10.1177/0963721413475622

McLean, K. C., Pasupathi, M., & Pals, J. L. (2007). Selves Creating Stories Creating Selves: A Process Model of Self-Development. *Personality and Social Psychology Review*, *11*(3), 262–278. https://doi.org/10.1177/1088868307301034

McMillan, J., Goodman, S., & Schmid, B. (2016). Illuminating "Transaction Spaces" in Higher Education: University–Community Partnerships and Brokering as

"Boundary Work." *Journal of Higher Education Outreach and Engagement*, *20*, 8–31.

Nembaware, V., Glasser, S., Priest, A., Davies, A., Skelton, M., Bodzo, P., Lelong, O., Naidu, A., Masimirembwa, C., Mutambiranwa, A., Hay, A., Wonkam, A., & Dandara, C. (2022). Competency-based Training Needs Assessment for Research Managers and Administrators in Africa and the United Kingdom to Strengthen Equitable Partnerships. *Open Research Africa*, *5*, 11. https://doi.org/10.12688/aasopenres.13272.1

Norris, D. R., & Niebuhr, R. E. (1984). Professionalism, organizational commitment and job satisfaction in an accounting organization. *Accounting, Organizations and Society*, *9*(1), 49–59. https://doi.org/10.1016/0361-3682(84)90029-1

Obodaru, O. (2012). The Self Not Taken: How Alternative Selves Develop and How They Influence Our Professional Lives. *Academy of Management Review*, *37*(1), 34–57. https://doi.org/10.5465/amr.2009.0358

Olssen *, M., & Peters, M. A. (2005). Neoliberalism, higher education and the knowledge economy: from the free market to knowledge capitalism. *Journal of Education Policy*, *20*(3), 313–345. https://doi.org/10.1080/02680930500108718

Paton, S., & Andrew, B. (2019). The role of the Project Management Office (PMO) in product lifecycle management: A case study in the defence industry. *International Journal of Production Economics*, *208*(September 2016), 43–52. https://doi.org/10.1016/j.ijpe.2018.11.002

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. https://doi.org/10.1111/j.1468-

2273.2011.00500.x

Pinch, T. J., & Bijker, W. E. (1984). The Social Construction of Facts and Artefacts: or How the Sociology of Science and the Sociology of Technology might Benefit Each Other. *Social Studies of Science*, *14*(3), 399–441. https://doi.org/10.1177/030631284014003004

Poli, S. (2018a). Dealing With Researchers and the Academic Community. In *Research Management: Europe and Beyond* (pp. 231–248). Elsevier Inc. https://doi.org/10.1016/B978-0-12-805059-0.00011-0

Poli, S. (2018b). Organizational Structures. In *Research Management: Europe and Beyond* (pp. 89–107). Elsevier Inc. https://doi.org/10.1016/B978-0-12-805059-0.00004-3

Poli, S., Andersen, J., Toom, K., & Wilkman, L. (2014). Shaping a new profession in higher education and research institutions: Introducing the EARMA European Certificate in Research Management. *NCURA Magazine*.

Poli, S., de Oliveira, F. S., & Trentini, A. (2023). Exploring Forms of Knowledge and Professionalism in RMA in a Global Context. In *The Emerald Handbook of Research Management and Administration Around the World* (pp. 221–230). Emerald Publishing Limited. https://doi.org/10.1108/978-1-80382-701-820231020

Poli, S., Oliveira, C., & Zsár, V. (2023). From Conceptualisation to Action – The Quest for Understanding Attitudes of Research Managers and Administrators in the Wider World. In *The Emerald Handbook of Research Management and Administration Around the World* (pp. 201–220). Emerald Publishing Limited. https://doi.org/10.1108/978-1-80382-701-820231019

Ritchie, J., Lythgoe, E., & Donovan, J. (2023). RMA Education, Training and Professional Development in North America and Europe. In *The Emerald Handbook of Research Management and Administration Around the World* (pp. 177–186). Emerald Publishing Limited. https://doi.org/10.1108/978-1-80382-701-820231016

Rosso, B. D., Dekas, K. H., & Wrzesniewski, A. (2010). On the meaning of work: A theoretical integration and review. *Research in Organizational Behavior*, *30*, 91–127. https://doi.org/10.1016/j.riob.2010.09.001

Santos, J. M. R. C. A., Varela, C., & Kerridge, S. (2021). Professionals at the interface of science: is there more than meets the eye? *Perspectives: Policy and Practice in Higher Education*, *25*(3), 100–105. https://doi.org/10.1080/13603108.2021.1881842

Santos, J. M. R. C. A., Varela, C., Kerridge, S., & Fischer, M. (2023). Where Do RMAs Work? In *The Emerald Handbook of Research Management and Administration Around the World* (pp. 155–165). Emerald Publishing Limited. https://doi.org/10.1108/978-1-80382-701-820231014

Saskia, P., Horton, K. E., & Jacobs, G. (2018). How do we describe our professional selves ? Investigating collective identity con fi gurations across professions. *Journal of Vocational Behavior*, *107*(March 2017), 168–181. https://doi.org/10.1016/j.jvb.2018.04.006

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students* (P. Education (ed.); 5th ed.).

Savickas, M. L. (2005). The Theory and Practice of Career Construction. In *Career development and counseling: Putting theory and research to work.* (pp. 42–70).

John Wiley & Sons, Inc.

Schützenmeister, F. (2010). *University Research Management: An Exploratory Literature Review*. https://escholarship.org/uc/item/77p3j2hr

Shelley, L. (2010). Research managers uncovered: Changing roles and "shifting arenas" in the academy. *Higher Education Quarterly*, *64*(1), 41–64. https://doi.org/10.1111/j.1468-2273.2009.00429.x

Tan, C. P., Molen, H. T. Van Der, Schmidt, H. G., Van der Molen, H. T., & Schmidt, H. G. (2017). A measure of professional identity development for professional education. *Studies in Higher Education*, *42*(8), 1504–1519. https://doi.org/10.1080/03075079.2015.1111322

Trede, F., Macklin, R., & Bridges, D. (2012). *Studies in Higher Education Professional identity development : a review of the higher education literature*. *5079*(May 2011). https://doi.org/10.1080/03075079.2010.521237

Trice, H. M. (1993). *Occupational Subcultures in the Workplace*. Cornell University Press. https://doi.org/10.7591/9781501737985

Occupational Sub-Cultures, Jurisdictional Struggle and Third Space: Theorising Professional Service Responses to Research Data Management. *Journal of Academic Librarianship*, *40*(3–4), 211–219. https://doi.org/10.1016/j.acalib.2014.02.008

Vogel, R. M., & Feldman, D. C. (2009). Integrating the levels of person-environment fit: The roles of vocational fit and group fit. *Journal of Vocational Behavior*, *75*(1), 68–81. https://doi.org/10.1016/j.jvb.2009.03.007

Wenger, E. (2001). Communities of Practice. In *International Encyclopedia of the*

Social & Behavioral Sciences (pp. 2339–2342). Elsevier.

https://doi.org/10.1016/B0-08-043076-7/00361-2

Whitchurch, C. (2006). Who do they think they are? the changing identities of

professional administrators and managers in UK higher education. *Journal of*

Higher Education Policy and Management, *28*(2), 159–171.

https://doi.org/10.1080/13600800600751002

Whitchurch, C. (2008). Beyond administration and management: Reconstructing the

identities of professional staff in UK higher education. *Journal of Higher*

Education Policy and Management, *30*(4), 375–386.

https://doi.org/10.1080/13600800802383042

Whitchurch, C. (2009). The rise of the blended professional in higher education: A

comparison between the United Kingdom, Australia and the United States. *Higher*

Education, *58*(3), 407–418. https://doi.org/10.1007/s10734-009-9202-4

Whitchurch, C. (2012). *Reconstructing Identities in Higher Education*. Routledge.

https://doi.org/10.4324/9780203098301

Whitchurch, C. (2015). The Rise of Third Space Professionals: Paradoxes and

Dilemmas. In *Forming, Recruiting and Managing the Academic Profession* (pp.

79–99). Springer International Publishing. https://doi.org/10.1007/978-3-319-

16080-1_5

Whitchurch, C. (2019). *Being a Higher Education Professional Today: Working in a*

Third Space (pp. 1–11). https://doi.org/10.1007/978-981-10-1607-3_31-3

Williamson, C., & Dyason, K. (2023). Knowing, Doing and Being: Transferable

Competencies for the Research Management Profession. *Journal of Research*

Administration, *LIV*(1), 120–200.

Williamson, C., Dyason, K., & Jackson, J. (2020). Scaling up professionalization of research management in Southern Africa. *Journal of Research Administration*, *51*(1), 46–72.

Williamson, C., Dyason, K., McNamara, C., & Aslanyan, G. (2023). "The Learning of Learned 'Learning Organizations'?": How Southern African Universities Use a Professional Competency Framework for Research Management and Administration: Selective Cases. *Systemic Practice and Action Research*. https://doi.org/10.1007/s11213-023-09660-0

Ylijoki, O. (2003). Entangled in academic capitalism ? A case-study on changing ideals and practices of university research. *Higher Education*, *45*, 307–335.

Zink, Holly R.; Hughes, Dorothy; Vanderford, N. L. (2022). Reconfiguring the Research Administration Workforce: A Qualitative Study Explaining the Increasingly Diverse Professional Roles in Research Administration. *Journal of Research Administration*, *LIII*(2), 112–120.

Zsár, V. (2023). The Influence of RMA Associations on Identity and Policymaking Internationally. In *The Emerald Handbook of Research Management and Administration Around the World* (pp. 281–295). Emerald Publishing Limited. https://doi.org/10.1108/978-1-80382-701-820231024