





Transitioning beyond Academia: engagement and disengagement experiences of HASS PhD holders

Marina Garcia-Morante ^a, Laura Sundström ^b, Kirsi Pyhältö ^b and
Montserrat Castelló ^a

^aDepartment of Psychology, University Ramon LlullFPCEE-Blanquerna, Barcelona, Spain; ^bDepartment of Education, University of Helsinki, Helsinki, Finland

ABSTRACT

PhD holders are increasingly exploring careers beyond academia, yet, little is understood about their transition experiences, particularly in the Humanities, Arts, and Social Sciences (HASS) disciplines. While research suggests that these transitions are both challenging and satisfactory, there is limited knowledge about the specific engagement (e.g. feeling absorbed) and disengagement (e.g. experiencing detachment) experiences during these transitions, as well as the career factors influencing them. This study aimed to explore the engagement and disengagement experiences of 20 HASS PhD holders from Spain and Finland who transitioned beyond academia. Specifically, we examined how working conditions, personal values, and professional support interacted with these experiences. Interviews were conducted and analysed using an inductive-deductive content analysis approach. Our findings revealed two primary career trajectories: non-academic and hybrid careers. HASS PhD holders described low levels of engagement with academia, while a pronounced engagement was observed towards hybrid careers. Our results showed that work environment and personal values being relevant besides the well-known job stability and work-life balance factors among engagement experiences. Furthermore, results showed the interplay between diverse career factors, revealing misalignments between PhD careers and support mechanisms. Overall, the study underscores the complex interactions between working conditions, personal values, and professional support within engagement and disengagement experiences, highlighting the need for tailored support systems to facilitate sustainable research careers beyond academia.

ARTICLE HISTORY



Received 30 October 2024
Accepted 13 February 2025

KEYWORDS

PhD transitions; career factors; engagement; hybrid careers; non-academic careers

Introduction

The number of PhD graduates working beyond academia¹ has significantly increased over the past decade and is expected to grow further in the future. In European countries, such as Finland, the UK, and Spain, more than 60% of PhD holders pursue careers beyond academia (Boman et al. 2021; Sala-Bubaré et al. 2024; Tynjälä et al. 2021). The lack of available academic positions and academic precariousness, as well as the investment in R&D in non-academic sectors, have given rise to a wide range of non-academic careers² in the public, private and non-profit sectors. Moreover, hybrid

CONTACT Marina Garcia-Morante  marinagm6@blanquerna.url.edu  Department of Psychology, FPCEE-Blanquerna – Universitat Ramon, Passeig Sant Gervasi, 47, 08022, Barcelona, Spain

© 2025 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

careers where PhD holders concurrently hold academic and non-academic job positions have become popular (Boman et al. 2021; Cañibano et al. 2019; Garcia-Morante, Castelló, and Sala-Bubaré 2024).

There are many push and pull factors detaching and attracting PhD holders from academia towards non-academic sectors, such as scarce academic positions and favourable working conditions in non-academic sectors (Guerin 2020; Kallio et al. 2024). PhD careers beyond academia can be desirable and satisfying for both HASS and STEM PhDs (Guerin 2020; Sala-Bubaré et al. 2024; Sinche et al. 2017). Obtaining permanent employment has been shown to increase job satisfaction among PhD holders, and working conditions, including type of contract, working hours, and salary, tend to be better outside academia (Goldan, Jaksztat, and Gross 2023; Sala-Bubaré et al. 2024).

This overall satisfaction notwithstanding, recent research has shown that transitioning to a career beyond academia can be challenging, with the social support received being crucial to overcome these challenges during career transitions (Rönkkönen et al. 2024; Vekkaila et al. 2018). Challenges have been reported in career guidance, lack of recognition of skills and competences, and in adapting to non-academic workplaces after the PhD (Hayter and Parker 2018; McAlpine, Skakni, and Inouye 2021; Skakni, Inouye, and McAlpine 2021). Conversely, academic supervisors and non-academic networks, together with professional environments facilitating synergies between sectors have proved to be enablers for sustainable and positive non-academic transitions (Garcia-Morante, Castelló, and Sala-Bubaré 2024; Germain-Alamartine et al. 2020).

Previous studies have separately examined career transitions beyond academia, factors influencing these transitions, and the role of professional support, highlighting that while transitioning beyond academia is challenging, it can also be satisfactory, with professional support and other influencing factors intervening (Germain-Alamartine et al. 2020; Guerin 2020; Skakni, Inouye, and McAlpine 2021). However, our knowledge about how all these aspects interact within engagement and disengagement experiences is still quite limited. To our knowledge, only Rönkkönen et al. (2024) have examined the engagement and disengagement of STEM PhD holders during their transition from academic to non-academic sectors and the pivotal role of professional support. Understanding this interaction is relevant, as it sheds light on the nuances of these individuals' experiences once they are settled in their new roles and specific contexts. This, in turn, has implications for their long-term wellbeing, professional development, and professional performance.

Considering differences among disciplines in terms of career trajectories and job-skills mismatch (AQU 2023; Barnacle et al. 2020; Garcia-Morante, Castelló, and Sala-Bubaré 2024), it is plausible to assume that HASS PhD holders' career transition experiences from academia to non-academic environments may underscore certain particularities. Studies focusing on HASS PhD holders working beyond academia are scarce, with a bias toward STEM fields, even though their presence in alternative job environments is increasing (Barnacle et al. 2020; Sala-Bubaré et al. 2024). The limited data indicate that these careers strongly rely on networking and knowledge brokering, which warrants particular attention to the factors underlying their decision to move beyond academia (Garcia-Morante, Castelló, and Sala-Bubaré 2024; Guerin 2020).

To enlarge our knowledge on HASS PhD holders' career transitions, this study aimed to explore the Spanish and Finnish HASS PhD holders' engagement and disengagement experiences, focusing on the interplay among working conditions, personal values, and professional support when transitioning beyond academia.

PhD holders in non-academic transitions

There are many pull and push factors influencing PhD holders' careers. Limited academic positions, low salaries, and work pressure push HASS PhD holders out of academia, while more favourable working conditions and greater stability pull them towards non-academic sectors. Furthermore, personal values, such as a detachment from the academic culture, a loss of interest in research or a desire for new opportunities, may play a pivotal role in these transitions (Barnacle et al. 2020;

Kallio et al. 2024; Li and Horta 2021; McAlpine, Skakni, and Inouye 2021; van der Weijden and Teelken 2023). Various reasons account for holding multiple jobs, including financial necessity, personal interest, and the acquisition or improvement of skills (Campion and Csillag 2022). For PhD holders, hybrid careers can offer career meaningfulness, complementarity, and financial sustenance (Spengler and Lee 2017).

PhD holders' careers beyond academia vary between disciplines. Researchers in the humanities, arts, and social sciences (HASS) are more likely to pursue academic careers than those in science, technology, engineering, and mathematics (STEM) fields (Boman et al. 2021). When they transition to non-academic sectors, they were reported to work in a similar position as before completing their PhD and experience more difficulties to find a job corresponding to their education qualifications (AQU 2023; Barnacle et al. 2020; Guerin 2020). The few studies on hybrid careers also suggest that HASS PhD holders face challenges in combining academic and non-academic jobs. Their academic contracts may be poorly supported and peripheral to their non-academic roles, leading to workload and a lack of recognition (McAlpine, Skakni, and Inouye 2021; Garcia-Morante, Castelló, and Sala-Bubaré 2024; Pérez-Rojas et al., 2022).

Common challenges when finishing the PhD include academic uncertainty and competitiveness combined with high-pressure, particularly when lacking career guidance, which may result in stress (Garcia-Morante et al. 2024; Hayter and Parker 2018). Furthermore, the lack of recognition of skills and competences, and adapting to non-academic workplaces may further affect the professional development and increase their risk of burnout of PhD holders transitioning to non-academic sectors (McAlpine, Skakni, and Inouye 2021; Skakni, Inouye, and McAlpine 2021).

Engagement, disengagement, and types of professional support

The engagement framework offers a comprehensive and context-situated explanation of the nuances of PhD transitions beyond academia. Engagement experiences are characterised by feelings of absorption, dedication, and vigour within a concrete setting (Bakker and Demerouti 2008; Schaufeli et al. 2002). Absorption refers to being fully focused and immersed in one's work. Dedication is marked by feelings of meaningfulness, significance, and enthusiasm towards one's work. Vigour involves high energy and persistence when facing challenges at work. In contrast, disengagement experiences are characterised by detachment, withdrawal, and negative emotions (Maslach and Leiter 2008; Schaufeli et al. 2002).

Professional support consists of three distinct dimensions: instrumental, informational, and emotional support (House and Kahn 1985; Pyhältö 2018; Pyhältö et al. 2024; Rönkkönen et al. 2024). Instrumental support refers to access to tangible resources and facilities necessary for professional work and development. Informational support involves giving and receiving feedback, help, and constructive problem-solving from colleagues. Emotional support encompasses positive, functional, and reciprocal relationships within the professional environment, fostering a sense of belonging and appreciation. PhD careers are shaped by the interaction of contextual and individual factors, reflecting how socioeconomic and organisational environments interact with experiences and agency, resulting in diverse interpretations among individuals (Hottenrott and Lawson 2015; Kuoppakangas et al. 2021).

The positive relationship between social support and engagement has been examined across various stages of PhD careers within academia (Pyhältö et al. 2017; Vekkaila 2014). Evidence suggests that support from supervisors and research communities is closely associated with positive engagement experiences for PhD holders in academic settings (Pyhältö et al. 2024; van der Weijden and Teelken 2023; Vekkaila et al. 2018). Support from academic supervisors in career guidance and non-academic networks that connect field-specific expertise with labour market expectations have proven to be essential (Garcia-Morante et al. 2024; Germain-Alamartine et al. 2020; Spronken-Smith, Brown, and Cameron 2024). For those pursuing hybrid careers, professional environments that facilitate synergies and fusion between academic and non-academic jobs seem to be

crucial for successful experiences (McAlpine, Skakni, and Inouye 2021; Garcia-Morante, Castelló, and Sala-Bubaré 2024; Pérez-Rojas et al., 2022).

However, research on the role of professional support in engagement among PhD holders beyond academia is limited and has primarily focused on those from STEM fields (Rönkkönen et al. 2024). Thus, our understanding regarding HASS disciplines remains particularly constrained. Furthermore, there is limited insight into how different types of professional support impact specific engagement and disengagement experiences.

This study seeks to deepen understanding of HASS PhD holders pursuing careers beyond academia engagement experiences, focusing on the interplay between professional support, working conditions, and personal values in transitions beyond academia. Considering previous gaps, the research questions are as follows:

- (a) What kinds of engagement and disengagement experiences did HASS PhD graduates report embedded in their transition from academia to beyond?
- (b) How did working conditions, personal values, and professional support interacted with the engagement and disengagement experiences?

Method

Doctoral education and HASS PhD careers in Spain and Finland

The study was conducted in Helsinki (Finland) and Catalunya (Spain). This was because, in addition to reflecting the expertise of the authors, both contexts are prominent regional research centres and major producers of PhD graduates in their respective countries (Andres et al. 2015; AQU 2023). However, as regions located in northern and southern economies, respectively, they underscore distinct economic contexts and investment priorities (OECD 2021).

Finland

Finland has seen a significant increase in the number of PhDs since the 1990s, supported by its commitment to the Bologna process and a policy of no tuition fees for both EU and non-EU students (Andres et al. 2015). While about 25% of PhD candidates are employed directly by universities, the majority finance their studies through private funding or work in non-academic sectors (Niemi et al. 2011; Vekkaila 2014).

Currently, approximately 62% of Finnish PhD holders find employment outside universities (Tynjälä et al. 2021). In social sciences, over half of new PhDs still pursue careers within academia (Koivunen 2018). From 2015 to 2019, there was a notable increase in Finnish PhDs employed in the private sector and entrepreneurial ventures, indicating a shift away from academia as the primary employer (Holopainen 2023).

Efforts to promote PhD careers outside academia have become a focal point for policymakers, educational institutions, and doctoral program developers in Finland. Initiatives include national development programs, skills courses, pilot non-academic internships, and mentoring programs (Niemi et al. 2011; Pyhältö 2018; Tynjälä et al. 2021).

Spain

Spain also follows the general European trend of PhD popularisation, with a stabilisation in PhD enrolments in the last years (AQU 2023; Castelló et al. 2023). Half of all PhD candidates are funded by scholarships or pre-PhD contracts, with differences across disciplines. While most PhDs in science and engineering are employed on scholarships or predoctoral contracts, this percentage drops to less than half of PhDs in HASS (AQU 2023).

Recent data indicates an increasing number of PhD holders pursuing careers beyond academia, a trend that is expected to continue (Castelló et al. 2023). Approximately 70% of PhD holders pursue

career paths beyond academia, with the proportion slightly lower in the humanities (65%) and social sciences (50%) (AQU 2023).

In response to the changing landscape of PhD careers, Catalunya has implemented substantial reforms in doctoral education influencing the structure, duration (typically 3–4 years), orientation, and outcomes of doctoral programmes (Castelló et al. 2023). A significant focus is placed on internationalisation and professionalisation within PhD programmes, which integrate specialised training workshops and personalised courses to better meet the needs of students (Castelló et al. 2023; Germain-Alamartine and Moghadam-Saman 2019).

Participants

The study included 20 HASS PhD holders (10 from Spain and 10 from Finland) who were currently working beyond academia and graduated less than 10 years before the interview. They represented a range of HASS disciplines, including archaeology, theology, economics, journalism, psychology, education, political sciences, philosophy, sociology, and audiovisual communication. They were 10 women and 10 men, and ages ranged from 30 to 60 years old: 4 participants were between 30 and 34 (20%), 6 between 35 and 39 (30%), 4 between 40 and 44 (20%), 5 between 44 and 49 (25%), and 1 between 50 and 60 (5%). The average age differed between countries, with Finnish participants being older than Spanish participants.

PhD holders pursued a variety of careers outside academia (Table 1). Seven participants worked in non-profit organisations, six in small & medium enterprises (SMEs), and three in public administration. Some participants held positions in policy consulting, research institutions, and large companies. At the time of starting the PhD, one participant from Spain and 2 from Finland had long-established professional lives.

Data collection

A research consortium comprising researchers from Finland and Spain conducted semi-structured interviews in 2022. The interview protocol was cross-culturally designed and multilingually developed.³

Participants were selected using a purposive sampling strategy complemented by the snowball method. Key stakeholders, including universities, R&D&I companies, and professional associations, were approached to request their collaboration in distributing a form to collect potential participants. Additionally, personal and social networks, particularly LinkedIn and Twitter, were utilised, and participants themselves were encouraged to invite other potential participants.

Participants were requested to fill out a pre-interview survey. This survey gathered demographic data, academic and professional backgrounds, and current job conditions. Such information was used to create a career timeline for each participant, which was later ratified and discussed during the interview sessions. The semi-structured interviews⁴ lasted between forty-five minutes and an hour and a half. They covered a wide range of topics, including current job characteristics and tasks, the impact of the PhD, motivations and career goals, networking, personal factors, career satisfaction and expectations, and a personal appraisal of the PhD training. The interviews were conducted face-to-face or online, with the audio and video recordings subsequently transcribed through the assistance of SONIX, an AI tool, and manually revised by the first and second authors.

Table 1. Description of participants.

	SMEs	Large companies	Non-profit organisations	Policy Consulting	Public Administration	Research	Educational sector
Spain	2	1	3	2	1		1
Finland	2	1	5		1	1	

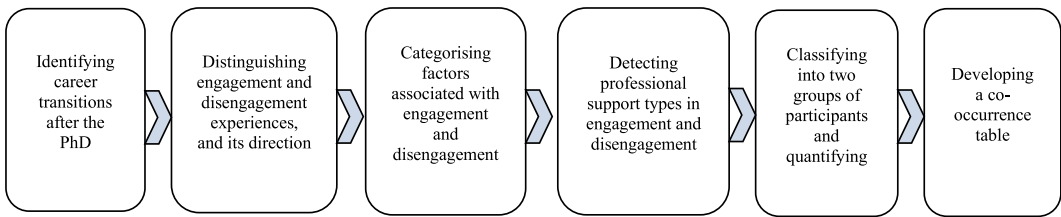


Figure 1. Analysis phases.

Participants gave their consent to participate according to the ethics approval procedures of the first author's institution. The aims and procedures of the study were approved by the ethics committee and the data protection delegate of the first author's institution [Ref. PRE2020-093026]. Participants were informed of their right to withdraw from the study at any time. To ensure confidentiality, all data were pseudonymised.

Data analysis

Data analysis was based on an inductive-deductive qualitative content analysis approach (Gläser-Zikuda, Hagenauer, and Stephan 2020). It was developed through a systematic, cross-national collaborative process, and it comprised six phases, as illustrated in Figure 1.

In the initial phase, the cross-national research team immersed themselves in the data to identify the episodes in which the participants reflected on their decision-making related to the first career transition after the PhD. In a second phase, these transitions were first inductively coded into engagement and disengagement experiences according to the direction of the engagement and disengagement experiences – whether towards or away from academia, non-academic sectors, or hybrid.

Once engagement and disengagement experiences were distinguished, the third and fourth phase involved inductive-deductive categorising career factors: (a) working conditions, (b) personal values influencing these experiences, and (c) types of professional support. Each experience of engagement and disengagement could be related to more than one career factor. Categorisation was rigorously discussed to ensure reliability and validity through consensus.

The data were classified into two main groups: participants transitioning towards non-academic careers and those pursuing hybrid career paths. This classification facilitated a detailed examination of the unique challenges and experiences associated with each career path, providing a nuanced understanding of career trajectories following PhD completion. Moreover, frequencies and percentages were calculated to map the distribution of categories, offering insights into their relative prevalence and distribution among the participants. Finally, we developed a table of co-occurrences to establish relationships between the codes.

Results

The first group of participants included 11 PhD holders (4 from Spain and 7 from Finland) who transitioned to non-academic sectors after completing their PhD. They transitioned from PhD fellowships and short-term teaching appointments to secure full-time positions outside academia. The second group encompassed 9 participants (6 from Spain and 3 from Finland) who pursued hybrid careers, thus concurrently combining academic and non-academic jobs. Spanish hybrid participants were employed in secondary jobs within academia. They worked as assistant professors, a teacher-based and part-time academic position for professionals with a parallel non-academic job. Most participants began in these roles during their PhD studies. In contrast, Finnish participants exhibited a

broader spectrum of hybrid employment arrangements. One Finnish participant adjusted her university administrative role to accommodate academic research tasks; another engaged with the university through his entrepreneurship; and the third delivered occasional seminars in academia.

Engagement and disengagement experiences of PhD holders transitioning beyond academia

Engagement and disengagement transition experiences towards and from academia, non-academic sectors, and hybrid careers were distributed differently across the two groups of participants (Table 2).

PhD holders who transitioned to non-academic careers

Participants who transitioned to non-academic careers underscored high levels of engagement with those non-academic sectors, in contrast to low levels of engagement with academia (Table 2). Their engagement experiences were characterised by immersion, an active commitment to overcome challenges, give meaning to their work, and invest in their professional growth. Marta, a Spanish participant in the history discipline and who joined a SME company, was an example of work immersion: 'I enjoy it; I am immersed in working with professionals and giving opportunities to other professionals to help each other in our work'.

Conversely, these participants expressed outrage, burnout, a perception of inadequacy to deal with academic pressures and competition, and a loss of the initial meaning attributed to academia. Marko, a Finnish participant employed by a large private company, articulated such a diminished sense of meaning and interest in academia:

While doing my PhD, I realised that I did not want an academic career for two reasons. It made no sense. The competition is extremely unfair; the basis and reasons for applying for funding are not fully disclosed, and you would have to settle for a rather strict life financially, if you want, for example, a family. (Marko, Consultant, Political Sciences)

PhD holders who transitioned to hybrid careers

Like the previous group, participants who transitioned to hybrid careers showed low levels of engagement with academia (Table 2). Those participants elucidated their orientation towards their hybrid careers, primarily focusing on the meaningful integration of various facets of their experience. For instance, Joel, a Finnish participant combining academic research and entrepreneurship, conveyed his dedication to a hybrid career, aspiring to acquire meaningful roles that integrate different aspects of his expertise:

I desperately wished to find some way to continue what I was doing in research and philosophy at university and then in practice, so that they were not so terribly separate. It was such a central and substantive issue that I found a way to do it. [...] My professional dream was probably to get as many meaningful jobs as possible, where you could combine things and then get paid for that combination. (Joel, Entrepreneur, Theology)

These participants also demonstrated engagement with their non-academic positions. Paulina, a Spanish participant holding a position in an SME company while teaching at a university, exemplified such engagement. Confronted with the challenges of navigating a marketing environment, she recounted her determination to surmount obstacles in her non-academic role:

Table 2. Engagement and disengagement experiences.

	Engagement experiences towards ...			Disengagement experiences from ...		
	Academia	Non-academia	Hybrid	Academia	Non-academia	Hybrid
Non-academic	6	35	0	47	3	0
Hybrid	4	18	37	23	4	11

They created my position because of the need for someone to help with marketing. I became that person, knowing how to speak the language they speak here. What do they want? Well, I was adapting, I learn fast, I replicate what they do, I speed up if I have to speed up. [...] So that's it: refining, refining, and always working as a team. (Paulina, Content Manager, Education)

Consistent with the non-academic participants' group, hybrid participants mostly referred to disengagement experiences from academia, as Gala, an adult Spanish mother, explained:

I started my PhD when I was already older and became a mother during my PhD. So, of course, life in academia forces you to travel, to spend time at other universities ... I didn't see this as plausible being a mother. [...] I thought, of course, it's unfeasible with my reality. (Gala, International Relations, Political Sciences).

Disengagement experiences from hybrid careers were also discernible in participants' narratives, frequently linked to burnout.

Career factors associated with engagement and disengagement

In terms of *working conditions*, six categories were inductively derived from the data: work-life relationship, job stability, finances, work task fit, and work environment (Table 3).

We organised the results for the two groups of participants by detailing the relationships between these factors and the three types of professional support considered: instrumental, informative, and emotional support.

PhD holders who transitioned to non-academic careers

The engagement experiences of PhD holders with non-academic transitions were mainly associated with job stability, work task fit, and personal values. While job stability was related to instrumental support, work task fit and personal values were related to different types of support, with informational support being of relevance (Table 4). Participants explained their engagement when they could easily find a non-academic position that gave them a sense of basic job security, which was related to the availability of job opportunities and stable conditions outside of academia. A representative example come from Henri, a Finnish participant employed by a non-profit organisation:

I saw a vacancy. Five people applied for the same job at the same time. I thought it might be right for me. I applied and, perhaps to my own surprise, I straightforward got the job! I had thought about these things before, that I would be looking for stability outside if I didn't get a job in academia. (Henri, Researcher, Theology)

In addition, they described their engagement when they felt having the competences needed for their non-academic work. They were engaged in their work when they were seen as experts and felt that they had the transversal competences to acquire new skills quickly. This was linked to feeling valued, being involved in decision-making processes, receiving guidance and feedback, and having resources (e.g. time) to improve their professional performance. Mikael, a Finnish participant, expressed this engagement: 'In my current job, I am seen as an expert, and I can have a much

Table 3. Working conditions and personal values.

Career factor	Definition
Job stability	Stability of employment, encompassing aspects such as job market competitiveness, availability of long-term contracts, and the perception of basic job security.
Work environment	Overall atmosphere, organisational structure, and leadership dynamics within the job position or job sector, influencing the overall experience and engagement of individuals within it.
Work task fit	Degree of alignment between job demands and the skills, expertise, and preferences of the participants, along with the sense of fitting into the assigned job role.
Finances	Financial aspects of employment, including salary levels, funding structures within sectors, and potential mismatches between participants' educational backgrounds and available salaries.
Work-life relationship	Ability, or lack thereof, to effectively balance professional responsibilities with personal life commitments, considering aspects such as workload, flexibility, and allocation.
Personal values	Alignment of careers with personal values, encompassing the perceived meaningfulness and relevance of work for oneself, its societal impact, and applicability across different sectors.

Table 4. Career factors of PhD who transitioned to non-academic careers.

ENGAGEMENT	N	Direction			Professional support			
		Academia	Non-Academic	Hybrid	Instrumental	Informational	Emotional	No reported
Working conditions								
Work life relationship	3		3		3			
Job stability	13		13		13			
Finances	1		1		1			
Work task fit	12	2	10		4	4		4
Work environment	9	1	8		5	3	2	
Personal values	14	5	9		4	7	1	3
DISENGAGEMENT								
Working conditions								
Work life relationship	8	8			6	1		2
Job stability	12	12			10	2	4	
Finances	7	7			7			
Work task fit	6	4	2		2	2		2
Work environment	9	9			3	2	4	
Personal values	15	14	1		2	2		11

more concrete influence. I can actively participate in decisions such as what to do with certain research results and what to do next' (Mikael, Senior Researcher, Political Science).

Engagement was also associated with their personal values. Meaningfulness of tasks, personal preferences, curiosity, and willingness to learn were values engaging participants towards academic and non-academic engagement sectors. In turn, usefulness and short-term social and economic impact were exclusively associated with non-academic sectors. These experiences were related to opportunities for learning, team discussion with constructive feedback, and mentoring. Sergi, a Spanish participant who worked as a policy consultant, explained his commitment to applied work and the relevance of his mentor:

What interests me now is applied work. It is a competence I started to develop a few years ago when I had the great luck to work with my head, the best political analyst I have ever known. [...] It's a job I like very much. It feeds me a lot, and I think it's very relevant on an economic and social level. (Sergi, Consultant, Psychology)

On the other hand, their experiences of disengagement were mainly related to personal values, job stability, and work environment from academia. While experiences associated with job stability and work environment were related to the lack of different types of professional support, most of those associated with personal values did not seem to be directly related to the lack of it (Table 4).

Participants expressed disengagement from endogamic academic values, noting that 'the world of academia was too closed in on itself' (Marta, Communication executive, History), too focused on publication metrics, and detached from real-world issues. Such disengagement was not directly related to a lack of support but rather to an intrinsic functioning and deep-rooted feature of the academic sector perceived as conflicting with participants' values. In a few cases, it was also related to the lack of resources, such as time or funding for research dissemination, as well as opportunities for constructively discussing research impact.

They also explained disengagement experiences associated with job stability, particularly concerning the unavailability of academic positions, limited access to professional opportunities, and time and resource constraints. Some participants regretted the nature of recruitment processes, which they perceived to be characterised by nepotism, favouritism and of opacity. These disengagement experiences were closely related to a lack of instrumental support, although some participants also expressed a lack of emotional support. Anne, a Finnish researcher, illustrated such disengagement related not only to the lack of available jobs but also to the lack of empathy and reciprocal relationship in building her post-PhD career:

When I asked at the team meeting if there were any assistant positions available at the university, I was told quite frankly 'listen, there is life outside the university'. It was very clear; it was a message to me to go elsewhere. At the

time, I was quite offended because I had squeezed four years out of this dissertation and contributed to teaching and curriculum planning. I felt bad. (Anne, Ombudsman's Services, Political Sciences)

Lastly, participants described disengagement experiences resulting from the academic environment. They characterised it by hostility, hierarchy, and competitiveness, underscoring a lack of diverse types of support. They regretted a lack of empathy and humility, open and constructive spaces for discussion, and funding to cultivate a proper work environment. Sergi revolved around the hierarchy that hindered his professional development in academia:

My supervisor was particularly involved in innovation. But it was a job that he always did as a senior, as a hierarchical matter of 'those who know'. [...] There is a hierarchical gap between juniors and seniors that hinders the development of researchers. (Sergi, Consultant, Psychology)

PhD holders who transitioned to hybrid careers

For hybrid participants, the experiences of engagement were mainly about personal values. While half of their experiences emphasised receiving instrumental and informational support, the other half did not seem to be related to the receipt of professional support (Table 5).

They emphasised their dedication and sense of responsibility towards bridging the gap between theory and practice, experiencing notable engagement in the synergy between theoretical perspectives and practical application. They also pointed out the value of teaching undergraduate students by their academic knowledge and professional expertise. In some cases, their experiences were related to financial stability and resources for managing their dual appointments, as Niko, a Finnish participant, vividly illustrated: 'The NGO is where I do most of my work. Thanks to it, I have my bread and butter, so I can do the academic stuff' (Niko, Philosopher, Philosophy).

Moreover, they highlighted the importance of guidance and support to implement innovation in their workplaces (e.g. spaces for evidence-based reflection and constructive problem-solving) and valued the recognition from their colleagues and students. Alex, from Spain, explained being fully absorbed by translating his dissertation findings into effective organisation principles:

These are the four principles we follow in my non-profit organisation, and they come from my PhD. We didn't come to these conclusions by chance. We discuss and try to apply the knowledge we have gained together to our organisational and production models. That is very important. (Alex, Director, Audiovisual Communication)

In contrast, many of the experiences were not based on receiving professional support but were related to individual agency. For many hybrid participants, these personal values were central to

Table 5. Career factors of PhD who transitioned to hybrid careers.

ENGAGEMENT	N	Direction			Professional support			
		Towards Non-Ac	Towards Hybrid	Towards Ac	Instrumental	Informational	Emotional	No reported
Working conditions								
Work life relationship	2		2		2			
Job stability	7	4	3		7			
Finances	4		4		4			
Work task fit	7	3	4		2	3	1	3
Work environment	8	5	2	1	3	4	1	
Personal values	38	8	26	4	11	8	1	18
DISENGAGEMENT	N	From Non-Ac	From Hybrid	From Ac	Instrumental	Informational	Emotional	No reported
Working conditions								
Work life relationship	9	1	5	3	9			
Job stability	14		5	9	14			
Finances	6			6	6			
Work task fit	2		1	1	1			1
Work environment	12	4		8	7	5	3	2
Personal values	5			5	2			3

their perseverance in facing challenges at work. Clara, a Spanish woman working in policy consultancy, commented: ‘Honestly, the working conditions [for hybrids] are bad, but I want to further my knowledge and link what I do in academia and make it useful for society’ (Clara, Policy Consultant, Sociology).

On the other hand, disengagement factors were the work environment, job stability, and work-life relationship. Disengagement about job stability and work-life relationship was related to a lack of instrumental support, while disengagement about work environment was related to different types of support (Table 5).

They criticised the competitiveness, bureaucracy, and normalisation of workload in academia, and expressed experiences of disappointment with the work environment outside academia. They felt that their organisations sometimes did not value their contributions or their research background. On these occasions, they felt that they were working in an environment where their PhD and evidence-based practice were not valued as they deserved. They identified lack of resources, time, willingness, and constructive feedback for evidence-based discussions to improve professional performance as relevant but lacking support. Paulina reflected on the lack of willingness in her organisation to base their educational innovations on evidence:

It still happens at work that I am asked to do a literature search, and I am asked to be quick, not to get too ‘specific’. In education, there is still a dichotomy between theory and practice. No one would question that there is research behind a vaccine. [...] I would like to apply more applied research processes, but I’m tired of insisting. (Paulina)

In addition, participants, especially those from Spain, were concerned about the precarious conditions of assistant professors because they were not permanent and full-time employees of the university. Alex complained about this precariousness:

And the university has become a place of precariousness, of very great inequalities between two groups of professors: we are paid a third. This creates a profoundly anti-fraternal atmosphere between people who are equally qualified. [...] We, the assistant professors, those of us who are clearly linked to industry, should also have stable working relationships, shouldn’t we? (Alex)

Similarly, they regretted the inability of organisations to support their hybrid careers. They explained that organisations did not offer financial recognition or flexible reduced working hours to support their work-life balance. They also explained that they had to renew their short-term academic contracts every year. This had a negative impact on their work-life balance and career stability, leading to workload and burnout. Paulina expressed significant strain and workload due to her work-life relationship:

I feel super tired. I can’t do it. At the end of the day, no matter how much you want to, you only have a few hours a week and I need to rest. And the university will fall away. The contact with the academy will disappear more and more. (Paulina)

Discussion

This study aimed to delve into the engagement and disengagement experiences of HASS PhD holders embedded in their transitions beyond academia. The focus was on examining the interplay between working conditions, personal values, and professional support. The experiences of PhD holders from two distinct European regions known for being research hubs and producing high numbers of PhD graduates, albeit with socio-economic structural differences, were explored.

HASS PhD holders reported varied career transitions trajectories, shaping their experiences of engagement and disengagement. We identified two primary PhD career trajectories, termed non-academic and hybrid, each with its own characteristics. The emergence of hybrid careers underscores the increasing mobility of PhD careers and the growing diversity of careers beyond academia (Cañibano et al. 2019; Garcia-Morante, Castelló, and Sala-Bubaré 2024). Additionally, we observed certain country-specific characteristics among participants with HASS hybrid careers. For example,

among Spanish participants, hybrid careers only included secondary, teaching-oriented academic roles, suggesting potential interactions with national economic and structural factors (Kuoppakangas et al. 2021; McAlpine, Skakni, and Inouye 2021).

Overall, only a few HASS PhD holders reported experiencing engagement with academia. Given the impact of professional experiences on the re-evaluation of academic experience, it is not surprising that PhD holders venturing beyond academia reported higher engagement with non-academic sectors and disengagement with academia (Guccione and Bryan 2023; McAlpine, Skakni, and Inouye 2021). This might indicate a potential mechanism related to post-hoc rationalisation frequently associated with retrospective interview situations (Sala-Bubaré and Castelló 2016). Interestingly, the HASS PhD holders showed pronounced engagement towards hybrid careers. Rather than an intermediate option for those wishing to remain in academia, our study suggests that this may be an engaging career option, strongly linked to the influence of personal values on career experiences. HASS PhD holders emphasised the meaningful integration of different facets of their experiences and applied research, in line with previous research (Garcia-Morante, Castelló, and Sala-Bubaré 2024; Spengler and Lee 2017).

Although it is not surprising that the most engaging elements of non-academic sectors were career job stability and the alignment of job skills, it is worth highlighting the significance of the work environment and personal values (Sala-Bubaré et al. 2024; Skakni, Inouye, and McAlpine 2021). On the one hand, non-academic participants emphasised their engagement in applying knowledge to practical contexts, addressing professional challenges, and perceiving immediate impacts. PhDs with hybrid careers, on the other hand, underscored a sense of responsibility towards facilitating knowledge transfer across sectors. Additionally, the recognition of their skills and the opportunity to engage in constructive discussions and decision-making processes emerged as key aspects of their experiences. These findings challenge the assumption that non-academic careers are pursued solely for job stability, extending beyond financial considerations to highlight the pivotal role of personal values and positive work environments in career transitions (Guerin 2020; Kallio et al. 2024; Li and Horta 2021). Moreover, they suggest that a sense of contribution is essential for fostering engagement among PhD holders. Many reported experiencing greater fulfilment when they could participate in meaningful discussions and contribute to organisational improvement through research-based evidence, reinforcing the idea of PhD holders as knowledge brokers (Garcia-Morante, Castelló, and Sala-Bubaré 2024).

As anticipated, professional support played a pivotal role in shaping HASS early career experiences into engagement or disengagement (Rönkkönen et al. 2024; Vekkiaila et al. 2018). Our findings provide insights into the interaction between career factors and professional support. They show that instrumental support, such as long-term contracts and facilities for family work balance, was crucial. In addition, they suggest that receiving informative support (e.g. guidance, constructive feedback, and open discussions) and emotional support (e.g. feeling appreciated and valued) was strongly related to engagement experiences, specifically those related to work-tasks fit, work environment, and personal values.

Our results also provide evidence on the unexplored issue of professional support for HASS hybrid careers, highlighting that many of the experiences were not grounded in receiving such support, but rather in individual agency (Garcia-Morante, Castelló, and Sala-Bubaré 2024; Hancock 2023; McAlpine, Skakni, and Inouye 2021). Participants reported a lack of institutional recognition for these careers and, consequently, the absence of tailored diverse supports. This is consistent with previous research on faculties involved in non-academic activities, which emphasised the absence of established career models and tailored supports (Pérez-Rojas et al. 2022). The role of individual agency among HASS PhDs should not be taken as a justification for precarious conditions, but as an alarm signal for the development of supportive career frameworks tailored to these careers. They are strongly linked to knowledge exchange and mobility, but long-term experiences of disengagement may negatively affect their wellbeing and intersectoral professional performance and even lead them to abandon their hybrid careers.

Several implications can be drawn from our findings. The emergence of hybrid careers as a distinct and engaging trajectory challenges traditional academic and non-academic career dichotomies, suggesting that future research should further investigate these career paths in more diverse geographical and disciplinary contexts. Additionally, the findings underscore the need to explore the role of personal values and work environments in shaping the career satisfaction and engagement of PhD holders, an area that remains underexplored in existing literature. More longitudinal studies are needed to track the long-term career engagement of PhD holders, in particular the sustainability of hybrid careers and their impact on professional well-being.

Also, it offers practical implications for higher education institutions, career support services, and policymakers. First, the engagement of HASS PhDs in hybrid careers signals a growing need for career development programmes that better address the mobility of PhD careers across sectors. Institutions should consider developing more comprehensive support mechanisms that go beyond traditional academic career paths. This includes fostering cross-sectoral collaborations that allow PhD graduates to use their skills in both academic and non-academic contexts, and doctoral orientation career seminars showing the wide range of available careers. In addition, the importance of personal values, work environments and different types of professional support in shaping career transitions suggests that organisations should support, but also benefit from, involving PhD holders in open, constructive discussions. For policymakers, these findings highlight the need to develop national and international policies that recognise and support the diversity of PhD careers, particularly for hybrid careers. By addressing the mismatch between PhD careers and existing support structures, stakeholders can help mitigate burnout, attrition and ensure sustainable career development for PhD graduates in both academic and non-academic sectors.

Despite its valuable contributions, this study has several limitations that should be acknowledged. First, the sample size of 20 participants, while sufficient for qualitative research, does not account for the diversity of HASS PhD holders' experiences. Future studies could benefit from larger and more diverse samples to capture a wider range of experiences. Additionally, this study focused on PhD holders from two European regions which, despite their distinct socioeconomic contexts, may not fully represent the experiences of HASS PhD holders in other parts of the world. Studies involving other countries or regions with different academic structures and labour markets could provide a more comprehensive understanding of the global landscape of PhD career transitions. Finally, while this study employed a qualitative approach to explore engagement and disengagement experiences, it did not measure the impact of specific career factors on these experiences. Future research could incorporate mixed-methods approaches to deepen on these relationships and provide a more nuanced understanding of the factors influencing PhD holders' career trajectories.

Still, our study is pioneering in exploring HASS PhD holders' transitions beyond academia and offers insights for further research into hybrid careers and the interaction between personal values, working conditions, and professional support across contexts.

Notes

1. We use the notion 'PhD holders working *beyond academia*' to cover any career that does not develop primarily within academia.
2. The term non-academic careers refer to professional trajectories pursued entirely outside the academic sector. It is used to encompass diverse roles and sectors outside academia regardless of any other potentially negative connotations.
3. Discussions and preliminary versions of the interview protocol were conducted in English, while parallel discussions and versions were developed in Finnish, Catalan, and Spanish by the authors' respective teams in each country.
4. Interview protocol available at <https://www.researcher-identity.com/single-post/ecrid-interview-protocol>.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This work was supported by the Spanish Ministry of Science and Innovation under [grant numbers PID2019-109358RB-I00 and PRE2020-093026].

Geolocation information

Barcelona, Spain.

ORCID

M. Garcia-Morante  <http://orcid.org/0000-0002-6492-2691>

L. Sundström  <http://orcid.org/0009-0006-7547-2581>

K. Pyhältö  <http://orcid.org/0000-0002-8766-0559>

M. Castelló  <http://orcid.org/0000-0003-1757-9795>

References

- Andres, L., S. S. Bengtson, L. del Pilar Gallego Castaño, B. Crossouard, J. M. Keefer, and K. Pyhältö. 2015. "Drivers and Interpretations of Doctoral Education Today: National Comparisons." *Frontline Learning Research* 3 (3): 5–22.
- AQU. 2023. "Employment Outcomes of Doctoral Graduates of Catalan Universities." <https://www.aqu.cat/en/doc/Estudis/il-titulats/Enquesta-IL-2023/Employment-outcomes-of-doctoral-graduates-of-Catalan-universities>.
- Bakker, A. B., and E. Demerouti. 2008. "Towards a Model of Work Engagement." *Career Development International* 13 (3): 209–23. <https://doi.org/10.1108/13620430810870476>.
- Barnacle, R., D. Cuthbert, C. Schmidt, and C. Batty. 2020. "HASS PhD Graduate Careers and Knowledge Transfer: A Conduit for Enduring, Multi-Sector Networks." *Arts and Humanities in Higher Education* 19 (4): 397–418. <https://doi.org/10.1177/1474022219870976>.
- Boman, J., H. Beeson, M. Sanchez Barrioluengo, and M. Rusitoru. 2021. *What Comes After a PhD? Findings from the DocEnhance Survey of Doctorate Holders on Their Employment Situation, Skills Match, and the Value of the Doctorate*. Strasbourg: European Science Foundation (ESF). <https://docenhance.eu>.
- Campion, E. D., and B. Csillag. 2022. "Multiple Jobholding Motivations and Experiences: A Typology and Latent Profile Analysis." *Journal of Applied Psychology* 107 (8): 1261–87. <https://doi.org/10.1037/apl0000920>.
- Cañibano, C., R. Woolley, E. J. Iversen, S. Hinze, S. Hornbostel, and J. Tesch. 2019. "A Conceptual Framework for Studying Science Research Careers." *Journal of Technology Transfer* 44 (6): 1964–92. <https://doi.org/10.1007/s10961-018-9659-3>.
- Castelló, M., M. Garcia-Morante, L. Díaz, A. Sala-Bubaré, and C. Weise. 2023. "Doctoral Trends Development in Spain: From Academic to Professional Paths." *Innovations in Education and Teaching International* 60 (5): 736–47. <https://doi.org/10.1080/14703297.2023.2237958>.
- Garcia-Morante, M., M. Castelló, and A. Sala-Bubaré. 2024. "PhD Holders at the Boundaries and Knowledge Brokering." *Studies in Continuing Education*, 47:302–320. <https://doi.org/10.1080/0158037X.2024.2358007>.
- Garcia-Morante, M., C. Weise, L. Diaz, and M. Castelló. 2024. "Strengths and Weaknesses of PhD Training to Develop Alternative Careers." Insights from PhD Holders Working Beyond Academia. <https://doi.org/10.1108/SGPE-12-2023-0115>.
- Germain-Alamartine, E., R. Ahoba-Sam, S. Moghadam-Saman, and G. Evers. 2020. "Doctoral Graduates' Transition to Industry: Networks as a Mechanism? Cases from Norway, Sweden and the UK." *Studies in Higher Education* 46 (12): 2680–95. <https://doi.org/10.1080/03075079.2020.1754783>.
- Germain-Alamartine, E., and S. Moghadam-Saman. 2019. "Aligning Doctoral Education with Local Industrial Employers' Needs: A Comparative Case Study." *European Planning Studies* 28 (2): 234–54. <https://doi.org/10.1080/09654313.2019.1637401>.
- Gläser-Zikuda, M., G. Hagenauer, and M. Stephan. 2020. "The Potential of Qualitative Content Analysis for Empirical Educational Research." *Forum Qualitative Sozialforschung Forum: Qualitative Social Research* 21 (1): 1–20. <https://doi.org/10.17169/fqs-21.1.3443>.
- Goldan, L., S. Jaksztat, and C. Gross. 2023. "How Does Obtaining a Permanent Employment Contract Affect the job Satisfaction of Doctoral Graduates Inside and Outside Academia?" *Higher Education* 86 (1): 185–208. <https://doi.org/10.1007/s10734-022-00908-7>.
- Guccione, K., and B. Bryan. 2023. "Worth Doing but not Worth Having? The Influence of Personal Aspirations and Career Expectations on the Value of a Doctorate." *Studies in Graduate and Postdoctoral Education* 14 (1): 83–98. <https://doi.org/10.1108/SGPE-02-2022-0012>.
- Guerin, C. 2020. "Stories of Moving on HASS PhD Graduates' Motivations and Career Trajectories Inside and Beyond Academia." *Arts and Humanities in Higher Education* 19 (3): 304–24. <https://doi.org/10.1177/1474022219834448>.

- Hancock, S. 2023. "Changing Career Pathways: Making Visible the Employment Destinations and Non-Academic Contributions of Doctoral Scholars." In *Developing Researcher Independence Through the Hidden Curriculum*, edited by D. Elliot, S. Bengtson, and K. Guccione, 251–63. Cham, Switzerland: Palgrave Macmillan.
- Hayter, C. S., and M. A. Parker. 2018. "Factors That Influence the Transition of University Postdocs to Non-Academic Scientific Careers: An Exploratory Study." *Research Policy* 48 (3): 556–70. <https://doi.org/10.1016/j.respol.2018.09.009>.
- Holopainen, H. 2023. Tohtorit työelämässä – Tilastokatsaus 2023. Sivistystyönantajat. <https://www.sivista.fi/wp-content/uploads/2023/09/Tilastokatsaus-tohtoreihin-2023-3.pdf>.
- Hottenrott, H., and C. Lawson. 2015. "Flying the Nest: How the Home Department Shapes Researchers' Career Paths." *Studies in Higher Education* 42 (6): 1091–1109. <https://doi.org/10.1080/03075079.2015.1076782>.
- House, J. S., R. L. Kahn, S. Cohen, and S. L. Syme. 1985. "Measures and Concepts of Social Support." In *Social Support and Health*, edited by S. Cohen and S. L. Syme, 83–108. Orlando: Academic Press.
- Kallio, T., T. Siekkinen, E. Pekkola, J. Kivistö, T. Nokkala, and P. Kuoppakangas. 2024. "Push and Pull Factors Affecting in Leaving Academia." *Tertiary Education and Management* 30 (1): 65–80. <https://doi.org/10.1007/s11233-024-09135-4>.
- Koivunen, T. 2018. Tutkinnosta työelämään. Yliopistojen kandipalautteen sekä maisteri- ja tohtoriuraseurantakyselyjen 2018 tulokset. Suomen yliopistojen rehtorineuvosto UNIFI ry.
- Kuoppakangas, P., K. Suomi, E. Pekkola, J. Kivistö, T. Kallio, and J. Stenvall. 2021. "Theoretical, Practical and Hybrid ex-Academics: Career Transfer Stories." *European Educational Research Journal* 20 (1): 14–41. <https://doi.org/10.1177/1474904120915026>.
- Li, H., and H. Horta. 2021. "Factors Influencing PhD Students' Intentions to Pursue Careers in the Government and Nonprofit Sectors: Evidence from a Global Survey." *Higher Education Research & Development* 41 (6): 1946–61. <https://doi.org/10.1080/07294360.2021.1948975>.
- Maslach, C., and M. P. Leiter. 2008. "Early Predictors of job Burnout and Engagement." *Journal of Applied Psychology* 93 (3): 498–512. <https://doi.org/10.1037/0021-9010.93.3.498>.
- McAlpine, L., I. Skakni, and K. Inouye. 2021. "PhD Careers Beyond the Traditional: Integrating Individual and Structural Factors for a Richer Account." *European Journal of Higher Education* 11 (4): 365–85. <https://doi.org/10.1080/21568235.2020.1870242>.
- Niemi, H., A. Aittola, V. Harmaakorpi, O. Lassila, S. Svärd, J. Ylikarjula, K. Hiltunen, and K. Talvinen. 2011. *Tohtorikoulutuksen rakenteet muutoksessa. Tohtorikoulutuksen kansallinen seuranta-arviointi. Korkeakoulujen arviointineuvoston julkaisuja, 15. Korkeakoulujen arviointineuvosto*. Tampere: Tammerprint Oy.
- OECD. 2021. *Reducing the Precarity of Academic Research Careers. OECD Science, Technology and Industry Policy Papers*. Vol. 113. Paris: OECD Publishing.
- Pérez-Rojas, A. E., T. T. Bartholomew, E. E. Joy, and A. J. Lockard. 2022. "Counseling Psychology Faculty's Involvement in Practice: A Mixed Methods Study." *Counselling Psychology Quarterly* 35 (1): 61–88. <https://doi.org/10.1080/09515070.2021.1978058>.
- Pyhältö, K. 2018. "Function of Supervisory and Researcher Community Support in PhD and Post-PhD Trajectories." In *Spaces, Journeys and new Horizons for Postgraduate Supervision*, edited by E. Bitzer, L. Frick, K. Pyhältö, and M. Fourie-Malherbe, 205–2022. Stellenbosch: Sun Press..
- Pyhältö, K., L. McAlpine, J. Peltonen, and M. Castello. 2017. "How Does Social Support Contribute to Engaging Post-PhD Experience?" *European Journal of Higher Education* 7 (4): 373–87. <https://doi.org/10.1080/21568235.2017.1348239>
- Pyhältö, K., M. H. Van Lill, L. Tikkanen, and L. B. Frick. 2024. "Does Professional Support from Colleagues Influence Supervisory Competencies and Experienced Burnout among Doctoral Supervisors?" *Africa Education Review* 20 (1-2): 92–112. <https://doi.org/10.1080/18146627.2024.2351001>
- Rönkkönen, S., V. Virtanen, M. Garcia-Morante, L. McAlpine, M. Castelló, and K. Pyhältö. 2024. "STEM PhD Holders Working Outside Academia: The Role of Social Support in Career Transition." *European Journal of Higher Education* (Latest articles): 1–20. <https://doi.org/10.1080/21568235.2024.2404683>.
- Sala-Bubaré, A., and M. Castelló. 2016. "Exploring the Relationship Between Doctoral Students' Experiences and Research Community Positioning." *Studies in Continuing Education* 39 (1): 16–34. <https://doi.org/10.1080/0158037X.2016.1216832>.
- Sala-Bubaré, A., M. Garcia-Morante, M. Castelló, and C. Weise. 2024. "PhD Holders' Working Conditions and job Satisfaction in Spain: A Cross-Sector Comparison." *Higher Education Research & Development* 43 (7): 1571–1585. <https://doi.org/10.1080/07294360.2024.2347611>.
- Schaufeli, W. B., M. Salanova, V. González-romá, and A. B. Bakker. 2002. "The Measurement of Engagement and Burnout: A Two Sample Confirmatory Factor Analytic Approach." *Journal of Happiness Studies* 3 (1): 71–92. <https://doi.org/10.1023/A:1015630930326>.
- Sinche, M., R. L. Layton, P. D. Brandt, A. B. O'Connell, J. D. Hall, A. M. Freeman, J. R. Harrell, J. Gowen Cook, and P. J. Brenwald. 2017. "An Evidence-Based Evaluation of Transferable Skills and job Satisfaction for Science PhDs." *PLoS One* 12 (9): e0185023. <https://doi.org/10.1371/journal.pone.0185023>.
- Skakni, I., K. Inouye, and L. McAlpine. 2021. "PhD Holders Entering non-Academic Workplaces: Organisational Culture Shock." *Studies in Higher Education* 47 (6): 1271–83. <https://doi.org/10.1080/03075079.2021.1876650>.
- Spengler, P. M., and N. A. Lee. 2017. "A Funny Thing Happened When my Scientist Self and my Practitioner Self Became an Integrated Scientist-Practitioner: A Tale of two Couple Therapists Transformed." *Counselling Psychology Quarterly* 30 (3): 323–41. <https://doi.org/10.1080/09515070.2017.1305948>.

- Spronken-Smith, R., K. Brown, and C. Cameron. 2024. "Retrospective Perceptions of Support for Career Development among PhD Graduates from US and New Zealand Universities." *Studies in Graduate and Postdoctoral Education* 15 (3): 273–89. <https://doi.org/10.1108/SGPE-05-2023-0048>.
- Tynjälä, P., J. Rautopuro, H. Aittola, P. Jääskelä, I. Markkanen, M. Virolainen, and A. Virtanen. 2021. Tutkinto takana: yliopistojen kandipalautekyselyn sekä maisterien ja tohtorien uraseurantakyselyjen 2018, 2019 ja 2020 tulokset. Jyväskylän yliopisto, Koulutuksen tutkimuslaitos. <http://urn.fi/URN:ISBN:978-951-39-8865-4>.
- van der Weijden, I., and C. Teelken. 2023. "Precarious Careers: Postdoctoral Researchers and Wellbeing at Work." *Studies in Higher Education* 48 (10): 1595–1607. <https://doi.org/10.1080/03075079.2023.2253833>.
- Vekkaila, J. 2014. *Doctoral Student Engagement: The Dynamic Interplay Between Students and Scholarly Communities*. Helsinki: University of Helsinki, Faculty of Behavioural Sciences, Department of Teacher Education, Educational Psychology. URN: ISBN:978-952-10-9524-5.
- Vekkaila, J., V. Virtanen, J. Taina, and K. Pyhalto. 2018. "The Function of Social Support in Engaging and Disengaging Experiences among Post PhD Researchers in STEM Disciplines." *Studies in Higher Education* 43 (8): 1439–53. <https://doi.org/10.1080/03075079.2016.1259307>.