Navigating Career Imaginaries in Academia: A View from Women Researchers in Biotechnology

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Introduction

In the current managerial university context, academic career building has become increasingly competitive, selective and demanding. Growing dependence on external funding, metrics–based performance assessments and intensifying managerial control over academic work have shaped the ways in which academic career building is understood and evaluated. Several studies have pointed to an increasing fragmentation and polarization of academic staff into winners and losers (Musselin, 2005; Ylijoki and Ursin, 2013; Murgia and Poggio, 2019). There are elite groups of academics with abundant resources and space for autonomy and academic freedom (for example Henningsson et al, 2018) alongside a growing mass of fixed-term academics on insecure and uncertain employment, the majority of whom are women (Murgia and Poggio, 2019). Apart from the individual level, this polarization takes place across various disciplinary fields that are located differently in terms of science–policy priorities and possibilities of engaging in academic capitalism (Slaughter and Leslie, 1997). Many STEM fields, in particular, are often regarded as winners because their research culture and mode of operation fit well with the current priorities: they have a long history of collaboration with industry that generates research funding, patents, spin–offs and economic impact, and their publication patterns and research organization in project teams produces results that are favoured in metrics–based performance assessments.

This chapter investigates women researchers' career building in one STEM field, biotechnology. Since this is a new and interdisciplinary field freighted with great expectations of commercial and practical utility, one might think that career building in this kind of policy priority area would be especially rewarding and easy. However, by looking more deeply at the experiences of women researchers in one specific university context in Finland, the chapter shows a much more complicated picture, involving strikingly circumscribed and limited career imaginaries on the part of the research participants. These imaginaries, in turn, shape the ways in which people make sense of what is possible and what is impossible, how goals can be reached and what obstacles are to be expected.

Career imaginaries are shaped not only by specific epistemic and institutional contexts, but also by general national academic career models. In the Finnish higher education system, academic career building has traditionally been based on what Musselin (2005) calls the tournament model, in which many candidates apply for an open post against heavy competition. In this model, academic career paths are particularly uncertain, risky and selective. Getting a permanent position, especially a professorship, require waiting for an open position to emerge as well as the long-term accumulation of merits. This means that achieving a professorship typically occurs in a rather late career phase, often when candidates are already in their 50s. However, this has gradually changed since 2010 when the tenure track system was introduced in Finland (Pekkola et al, 2020). Universities have implemented the system in different ways but common to all is that those recruited into the tenure track progress from a fixed-term appointment to a tenured full professorship if they pass their performance assessment (Herbert and Tienari, 2013; Pietilä, 2015, 2019). Although candidates need to be already-established scholars, their future potential has become an important selection criterion as tenure track recruitments usually take place at a rather early career phase (Pekkola et al, 2020). This increasingly leaves room for subjective and unreflexive elements in the assessments, including ones related to subtle gender biases (van den Brink and Benschop, 2011; Herschberg et al, 2019).

In the following, I examine how women researchers in one Finnish biotechnology unit envision their career futures in the current managerial university context. I first present my data and the analytical lens to interpret them. Next, I describe the future horizon of the biotechnology unit in which researchers' career building takes place, thereby setting it in the broader epistemic and institutional context. Then, I move to individual experiences and distinguish three career imaginaries – the tenure track, academic entrepreneurship and leaving academia – to discuss the prospects and restrictions they impose on researchers. I end by reflecting on the complexities and narrow visions of academic career building.

Data and method

This chapter is based on a study of one biotechnology unit located at a research-intensive and multi-faculty university in Finland. The unit was established in the early 2000s as a small independent research centre of the university. Since then, it has undergone a series of organizational fusions, first integrating sequentially with two research institutes, and then merging with the Faculty of Medicine. In this process, the unit's history illustrates well the recent Finnish higher education policy, in which structural development and mergers between and within universities have been priorities, aiming to strengthen the dynamics, effectiveness and competitiveness of universities (Ylijoki, 2014b). From the beginning, the primary goal of the biotechnology unit was to create new commercial and clinical solutions in the health care sector. The unit's research involves interdisciplinary laboratory science, combining biosciences and engineering. Unlike technology more generally, biotechnology is a female-dominated field. In this unit, too, almost all the researchers were women.

The empirical material in this chapter comprises focussed interviews with 16 women researchers who all have a close connection to the biotechnology unit. At the time of the interviews, one half of the interviewees were working at the unit, while the other half had worked there before but had recently moved to work outside of academia in private, public and third-sector organizations such as pharmaceutical companies, start-ups and hospitals. The interviewees' ages, and correspondingly the lengths of their career histories, differed: five interviewees were born in the 1960s, five in the 1970s and six in the 1980s. By and large, those who had left academia were younger and those who had stayed represented the older generation; only one interviewee born in the 1980s was still working at the unit. Of those who remained in academia, three were professors (all belonging to the oldest generation), one was a project researcher and the rest were research group leaders. All interviewees were qualified researchers with PhDs. Their disciplinary backgrounds varied. Some of the younger researchers had studied and gained a doctorate in biotechnology, but the majority came from other fields, such as biochemistry, genetics, molecular biology, material technology and medicine. All but two interviewees had children and all had partners.

The interviews were open and informal in nature, allowing the interviewees to talk freely about their work experiences. The themes discussed included work history, career support and obstacles, the role of gender, future goals and work-life balance. The interviews which lasted one to two hours were recorded and transcribed verbatim. All quotes presented in this chapter are translations from Finnish into English and the names are pseudonymized.

The interviews were analyzed through a temporal lens (Ylijoki, 2014a), by exploring the future horizons embedded in the ways in which the

interviewees made sense of career building in academia. The point of departure was that career building is not solely a personal pursuit based on individual choice but is deeply rooted in culturally and socially available career scripts and narratives (Cohen and Mallon, 2001; Duberley et al, 2006). These both facilitate and constrain individuals in their career construction. The focus of the analysis is on future imaginaries that shape and mould present understandings of what it means, and what it takes, to have an academic career in biotechnology. The specific research questions were: i) How many and what kinds of career horizons were there?; ii) What kind of temporality was embedded in the career horizons?; and iii) How did the researchers navigate among different career imaginaries?

Future horizons of biotechnology: from hype to harsh reality

> 'This was really a sexy topic at that point [2000s], we will produce human spare parts and things like that. … People said wow, are you really doing these things? I felt so proud of being part of this kind of research. It got so much respect and media visibility. … When I started, we still had this hype that we will be able to cure the whole world. Then the reality struck, perhaps these human spare parts will not be available within ten years. We had big plans but, at some point, we needed to start to give up. … The situation changed; we turned into a normal university laboratory.' (Anita)

In the aforementioned quote, Anita describes the changes that took place at the biotechnology unit in terms of a declining storyline. This narrative arc was shared across the interview material. According to this trajectory, the unit started with great hype that gradually faded away, transforming radically the future horizon of the research work. The beginning of the unit is a good example of an economy of technoscientific promises (Felt, 2009), which offers grand visions of fast science making accelerating progress with immense commercial and practical success in the future. The unit was expected to create not only rapid scientific breakthroughs but also powerful dynamics that would lead to economic growth and innovative solutions for overcoming diseases. This future horizon was appealing both inside and outside of academia. The unit got much media visibility nationally and received abundant funding from various sources 'as money followed money'. This horizon represents what Adam and Groves (2007) call the present future: the future is seen as empty, open and subjugated to human will. It is an unlimited terrain, full of possibilities, which can be seized for the benefit of the present.

However, this horizon gradually transformed due to various obstacles. The open horizon turned into the future present (Adam and Groves, 2007), a

contested and limited future which de facto was already latent in the present. Epistemic constraints emerged when the promises of an accelerating scientific pace were not fulfilled. Fast science turned out to be slow science because the laboratory experiments involved much waiting time that could not be sped up by human will. Thus, although the research work was, in many respects, successful, it involved much 'epistemic uncertainty' (Fochler and Sigl, 2018). Likewise, converting scientific results into commercial products was a long-term process, strongly regulated by the authorities and requiring time-consuming testing. Therefore, the vision of great commercial and clinical success moved into the dim and distant future. This was accompanied by financial obstacles, which were further aggravated by a general decline in research funding in Finland (see Chapter 5, this volume).

The narrowing of the future horizon was also related to the institutional context of career building. The unit started as a small, all-female, independent centre but then underwent several mergers that turned a close community of women researchers with "a crazy drive" into a component of increasingly large formations within the university structure. As a consequence, the size of the work environment "increased exponentially". This substantially changed social relations and the general atmosphere. Anita, one of the interviewees, described these changes as follows:

> 'We had such nice people there and such a great spirit. … We didn't have any kind of hierarchy; we were all best friends. We spent a lot of free time together and we had such lovely crayfish parties. It was so relaxed. It really was a fantastic work community. … But of course, when the size grew, you couldn't know all the people. People were of different ages, different kinds of people came, and the spirit of the core group broke up.' (Anita)

The mergers had an important impact on the prevailing research culture, values and management practices of the unit. While the unit was very outward-looking and business-oriented in the beginning, with a fancy office "almost like in start–ups", after the mergers it needed to adapt to traditional faculty-based university structures and modes of action. More than that, the mergers meant declining autonomy in decision-making. In particular, the last merger with medicine created tensions and a sense of marginalization. Sara, who worked as a research group leader, described this relationship as "a state of war" as she related the difficulties she had experienced:

> 'When the merger took place and we were not professors, we were not seen as being as good as they. And the funding that we brought in was not as good as their funding from the Academy. But if you bring in 100,000 Euros in a year and I bring 300,000 Euros, how can you say

that you are better than I am, and how can you get more benefits than
I, and I'm not allowed to sit at the same PIs table. And we all happened
to be women and none of us had the status of a professor.' (Sara)

The interviews suggested that, in this changing institutional context, the
future horizons of biotechnology were circumscribed by the power of
medicine, in several senses. Biotechnology was an interdisciplinary and
entrepreneurially oriented newcomer in academia, with only very few
permanent positions, while medicine had a strong disciplinary status, a
long history in academia and a mass of professorships. Consequently, the
institutional position of biotechnology was weak and vulnerable, as manifested
by the repeated mergers. Further, biotechnology was not a professionally
oriented field with strong linkages to a given professional group in society
to provide backup support. In clear contrast to this, medicine had powerful
institutional standing in the university structures and influential professional
support from medical doctors outside. On top of this, the biotechnology
unit was a female-dominated field with a history of a close-knit community
spirit without hierarchies, whereas medicine at the professoriate level was
male-dominated and its overall work culture reflected the spirit of hospital
hierarchies, as the relations between the university and university hospitals
were intense and deep-rooted.

   All these distinctions between the two fields worked to the disadvantage
of biotechnology and put it in a subordinate position to medicine. At
the individual level, visions of the future narrowed, at worst leading to
experiences of not being acknowledged and valued as a colleague, as in Mia's
account: "There are those men who have arranged everything beforehand.
This makes me feel that I'm a smaller and smaller mosquito in their eyes,
that is to say, I am nothing at all" (Mia). The tensions and uneven power
relations shaped the ways in which career futures were envisioned. Instead
of an open career future full of possibilities, the future appeared restricted
and limited by persistent and long-lasting structures, cultural barriers, and
"Neanderthal rules" which made career prospects in this biotechnology unit
blank. For instance, Tanja, having experiences of being disregarded by the
medical professors in power, felt that there was no future for her at the unit
and was seriously considering leaving – which, in the end, she did not do:

'It was a really tough situation. I even thought of leaving altogether,
I won't accept this. I could have transferred my research to [another
university]. And my team already had work contracts here, so they
would have been forced to pay salaries to the team. It would have
been a real mess for them, I could have taken all my money with me.
At that point I really was considering leaving, there was no sense in
this.' (Tanja)

Career imaginaries

In their career building, researchers draw upon socially and culturally available career scripts and narratives. National career models and the specific local conditions shape the understandings of what kinds of prospects for academic career building are imaginable and what is required to become a successful academic. Basically, the prevailing career imaginaries among the participants of this study entailed only three visions of what was possible: to become a professor, mostly via the tenure track route; to work as a research group leader dependent on external research funding for both one's group and oneself; and to move away from academia. Instead of a free, unlimited and open future, these career imaginaries provide a predefined and circumscribed view of what is possible. Next, I shall explore each of these three imaginaries in turn.

Tenure track positions

According to the interviewees, in their current university context the tenure track represented the most valued and recognized way to build an academic career. It led to a permanent position as a professor at the top of the career hierarchy, offering career safety and success. The competition for a tenure track position is, however, intense, and only very few succeed. Therefore, this career vision was experienced as out-of-reach by most of the interviewees. Correspondingly, securing permanent employment in academia was seen as overly difficult. Leena, who was one of the three professors who had gained their positions before the rise of the tenure track system, painted a gloomy picture of the employment prospects for early-career researchers:

> 'The university is the worst employer in the world while the hospital, there is always a need of medical doctors. … If I think of my own research group, it is easy to get funding as long as you're doing your doctoral dissertation but, when you finish, what then? The university has nothing to offer. … A research career is really bleak.' (Leena)

Apart from being highly selective, tenure track positions are embedded in a rigid and standardized vision of academic career building. The latter involves a linear and vertical career trajectory with predefined, steady progression to a professorship. In this, it contradicts the notion of a boundaryless career (Arthur and Rousseau, 1996), which understands career advancement in present-day flat organizations as horizontal enlargement and enrichment of duties and competences rather than as vertical progress. Contrary to this, the tenure track position always rises upwards, entailing only the options up or out. This sustains the traditional imaginary of the academic profession, with professors holding power and influence at the top of the

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career ladder. Among the interviewees, this hierarchical image did not resonate particularly well, as the unit's history had been one of cherished equality and community spirit.

Furthermore, this vision of the tenure track allows no deviations or boundary crossings. Although career moves between different sectors, especially between academia and industry, are strongly advocated in policy discourses, the tenure track works against these. To keep oneself competitive, one must avoid wasting time with false steps outside the scientific circle since, in the final analysis, only scientific merits count in tenure track evaluations. The common understanding among the interviewees was that what really mattered were publications in high-impact journals and the amount of external research funding from prestigious sources one could get. Again, this did not sit well with the research culture adopted in biotechnology since, as they explained, "research is not just research, but we always have an idea of commercial products" and "benefits for others". From this perspective, the tenure track vision entailed a narrow image of what it means to be a successful academic (see Pietilä, 2019).

The tenure track vision also entailed a specific kind of temporality called 'anticipatory acceleration' (Müller, 2014). This refers to the speed-up in the pace of work for the sake of gaining a reward in the future. Since the competition for tenure track positions is fierce, researchers need to work harder and harder to testify to their excellence and overcome their competitors. And, if they are successful in this, they cannot but keep up the accelerated tempo to ensure that they meet the rising standards of their final assessment and are granted a permanent position as full professor. Thus, the imaginary of the tenure track intensifies the notion of academic work as an increasingly high-speed activity requiring total commitment, superhuman performance and hyper-productivity (see Ylijoki, 2013; Murgia and Poggio, 2019; Pietilä, 2019). This image was emphasized, for instance, by Emilia, who said that "if you want to continue in the research world you have to give it your whole life".

Tenure track positions are also important institutional investments in the future, involving struggles for resources and research priorities. Having investigated the tenure track system in Finland, Pietilä (2015) concludes that the system is utilized as a strategic instrument and a control mechanism by university management to steer future activities into the desired direction. Faced with tensions with medicine in their work environment, the interviewees in this study said that they needed to be watchful and keep an eye on how "the game is played" to protect their interests. Since the potential of academics plays an important role in tenure track recruitments, this career vision becomes particularly risky and prone to biases (see Herschberg et al, 2019). Liisa, working as PI without a permanent position, offered a gloomy view:

'Tenure tracks provide just more space for different games and also for discrimination because you don't need to say any more that okay, we take the most qualified. That's why it is completely and totally in the control of those who are on the recruitment committee to decide who is selected.' (Liisa)

At the time of the interviews, only one research participant had secured a tenure track position. She had been very determined, watched out for an appropriate position to open up and, when an opportunity came, "managed to snatch it up". Yet, she was still concerned about the risk that her position might be cut because of institutional micro-politics. In this sense, the imaginary of the tenure track was freighted with heavy competition not only among individuals but also among disciplinary fields and research areas. In this competition, the researchers in biotechnology felt that they had unequal conditions compared to the researchers in medicine because, among other things, disciplinary merits tended to count more than interdisciplinary ones in academic recruitment.

All in all, although the tenure track vision had alluring elements and was associated with success and prestige, it represented a normative ideal which most interviewees found difficult to identify with. It was seen as very competitive, individualistic, demanding and available only to very few people – not an obvious path for their own career futures. Heidi, for instance, distanced herself from the tenure track image of a successful researcher and hoped to find some other way to build her academic career – at the time of the interview still without success:

'Although I don't aim to become a professor or anything like that but even so I could produce high-quality research, I hope. … But the university has really nothing to offer my kind of researcher, the path you should take is somehow so clear-cut, there is no place for my kind of researcher.' (Heidi)

Academic entrepreneurship

The majority of the interviewees who worked in the biotechnology unit were research group leaders employed on temporary contracts. They acted as principal investigators of externally funded research projects and were responsible for fund-raising both for their group and for themselves. In this sense, they were academic entrepreneurs leading quasi-firms within academia. Entrepreneurial activities are part and parcel of present-day academia since the university system at all levels engages in academic capitalism (Slaughter and Leslie, 1997) and depends on external funding. Yet, there are significant differences among different categories of academic staff. Although established professors and tenure track academics also need

to be successful in fund-raising for their research groups, their own salaries are covered by the university. In contrast, academic entrepreneurs work at their own risk and need to attract funding for themselves, which makes their vision of their career future uncertain and vulnerable.

What is more, a temporary position is not a brief entry-level phase before permanent employment but rather, an enduring situation, as growing numbers of academics, especially women, work for years or decades on a series of fixed-term contracts (Murgia and Poggio, 2019). This was the case in this study, too. All the research group leaders without permanent employment were born in the 1960s and 1970s and had more than 30 years of temporary research work in the university. Thus, the career trajectory of an academic entrepreneur is circular and horizontal, moving from contract to contract, with no promises of future upward mobility on the career ladder.

The uncertainty and insecurity embedded in academic entrepreneurship makes this imaginary look like a rocky road. In the first place, it is a question of money and livelihood. While working on temporary employment, one cannot know whether there will be a next project and a next contract, which the interviewees experienced as stressful. They described fund-raising as "really awfully difficult" due to tight competition and the amount of time and energy it took. Further, over time salary became an issue. For instance, Maria said that she had begun to think about the financial side and wanted to earn some money at some point, and Pirjo remarked that she had not received any salary increase for a long time but needed to get her salary on an upward trajectory in the future.

Being stuck in the same position over a long period of time also impacted on the interviewees' emotional relations to their career futures. Although circuitous and horizontal career trajectories have become increasingly common, the linear career progression to professorship is still largely regarded as a sign of success and high-level merit in academic culture. Therefore, the lack of linear advancement upwards easily carries a certain professional, and even social, stigma. Among the interviewees, this was related to comparisons with those who had managed to get a tenure track position. Comparisons with the neighbouring discipline in particular, that of medicine, led to a sense of unjust and unequal treatment in recruitment to tenure track positions. Pirjo emphasized that she did not need to worry about funding because she had been very successful in that respect and was convinced that "money would bring money" in the future. However, she was frustrated because she felt that she should have received a tenure track position and that not having it did not look good in her own and in others' eyes, hampering her work situation:

'It begins to look absurd. My colleagues in Finland keep saying, "Oh, don't you have it yet [a tenure track position]?" … It begins to look

so absurd. Those colleagues who have got tenure do the same kind of work, they have exactly the same job description and, in fact, I have brought in the biggest amount of money. It will be rather absurd if I don't get it next time.' (Pirjo)

Even though the tenure track includes aspects that did not accord with the interviewees' career building preferences, this model had a strong normative power, shaping their understandings and self-conceptions. The award of a tenure track position signalled long-term commitment by the university to these scholars and their work, which was thereby acknowledged and valued, whereas the academic entrepreneurs tended to feel that they were not appreciated and, instead, left to their own devices (see van der Weijden et al, 2016). Although they brought in significant sums of money, the local work environment did not offer recognition or encouragement regarding future career prospects in return. As Nora said:

'The university has not provided me much more than to allow me to be here; it is the Academy of Finland that has given me the funding. I received a significant grant and with this funding I was able to realize my dream. … There was no space, nothing. I managed to get new laboratory space, buy new instruments, and get new people. I recruited them and educated them and developed the methods. And we created great systems and our research has really progressed. … The university has had nothing against this, but they have given nothing to me.' (Nora)

The future horizon of academic entrepreneurship seemed, thus, constrained and unsettled, further complicated by struggles with the neighbouring discipline and its top professors who seemed to downplay their biotechnology co-workers' work and merits. When such a situation has prevailed for a long time and there seems to be no possibility of change in the future, work motivation can diminish and "a nihilistic feeling" can easily take over. Yet, the temporarily employed researchers were not submissive and desperate victims. For instance, Pirjo said that she was not "the kind of person who digs a hole and cries that I want to spend the rest of my life here". She had decided to give the university two more years to offer her better work conditions, and if this did not occur, she would be ready to move away. Nora explained her feelings and future plans in a similar manner:

'I have possibilities to do international, really interesting, and really important research, but somehow it is awfully difficult to commit to it if you don't have any position. It is hard to do this as a half-freelancer who rakes in money but has no official position anywhere. In a way, it has slowed me down and affected my career advancement and obstructed

my research. I wonder how long I really want to go on if it continues to be very hard and there is no position in sight. … I need to start to think about creative solutions outside of academia in that case.' (Nora)

Leaving academia

Half of the interviewees in this study had worked in the biotechnology unit but had recently moved outside of academia. A couple of them had never seriously considered an academic career but stayed for some time after their PhD, when their group leader had invited them to continue in an ongoing project. Others had more fluid and complex career intentions both towards and away from academia (see Wood et al, 2020), but, finally, they either decided to, or had to, leave. Common to all was that the imaginaries of academic career prospects had turned out to be too narrow, too risky and too demanding for them. Katja summarized her feelings in a way that was typical for the interviewees:

'I had seen how competitive all funding is after the dissertation, and everyone preaches that you must go abroad for at least one year if you ever want to get any money from anywhere. And then you must have excellent ideas and establish your own research group at once. And I wondered if I'd be able to do that, and I started to think what do I want to do with my life and what is important to me? At that point, I got the idea of applying to [elsewhere]. I will have a firm source of income and yet interesting work. If you want to continue in the research world, it requires so much, and especially as a woman, you really have no time for anything else. And I certainly want to see my friends and my family and take a holiday with a clear conscience.' (Katja)

Among the interviewees, there was a widely shared understanding that "the university is a place mainly for those who want to become professors". Without a professorship as a goal, it seemed rather pointless to stay. The career path to a professorship, in turn, was envisioned as exceptionally exhausting and challenging, requiring living with financial insecurity, coming to terms with serious competition, working hard for long hours, creating brilliant research ideas and having competencies beyond compare (see Laudel and Gläser, 2007). It was, therefore, not for "an ordinary person". Academic career building was also viewed as focussing merely on the accumulation of scientific merits and on writing publications. For many, this was not enough, as they preferred more direct and quicker impacts that would benefit the health care system and patients. In consequence, these interviewees had concluded that the career future offered by the university did not coincide with their own preferences.

Yet, there were also those who would have wanted to continue in academia but had to leave because they were not successful in getting grants. In these cases, leaving was a painful experience, recalled in a tragic tone of voice. Emma said that, after moving away, "it lasted for a long time, a couple of years, that I felt pain". Mia had similar feelings. She had been part of the biotechnology unit almost from the start and experienced it as akin to her home. Despite this long-term commitment, she had ended up in a situation where she had no funding for herself and was therefore forced to leave. This was a nadir experience, which made her lose her vision of the future:

> 'All those plans that we had made together, they were suddenly taken from me. It was a hard moment. I became unemployed, I didn't have any idea of what the future would be, and I had a small child. … It was hard to leave that work community and leave everything behind. They were all my projects, and now I'm totally out of it. And I remember how I felt when I was removed from our WhatsApp group, a feeling of shame.' (Mia)

Irrespective of the reasons for moving outside academia, leaving was always an outcome of a variety of factors (Wood et al, 2020) and related to the interviewees' overall life situation and the future horizon involved in it (see McAlpine and Emmioglu, 2015). All interviewees had commitments in their private lives, and most of them had families and children. Hence, the future visions of their private lives were entangled with career decisions, albeit in different ways. Some utilized a "family first" strategy, some gave priority to career considerations, but nobody planned their career future in a social vacuum. For instance, the importance of financial security was emphasized, as it ensured "that we will manage even if one of us becomes unemployed". Likewise, getting a better work–life balance became crucial when one had "the sweetest child in the world at home" and wanted to devote time to her. Going abroad for a longer period, defined as necessary in academic career advancement by the interviewees, became unfeasible when one's partner refused to come along because "he had just spent four years as a postdoc in the US". And for some, the crucial thing was that one's working–class "eight–to–four environment" with a home-centred lifestyle could not be reconciled with the university's culture of long hours. These kinds of mismatches between one's private life and the visions of academic career pushed some interviewees out of academia.

All the interviewees who had left academia have, since, succeeded in finding good jobs in a variety of areas. However, leaving was challenging because there were hardly any other career imaginaries than the academic one available in their local environment. As the field was new and did not educate people for a specific profession, the researchers simply did not know

what kinds of jobs they could apply for and where their qualifications would be sufficient and relevant. In this sense, the future was fuzzy and veiled for many, and they had to carve it out themselves. Hence, pioneers became important. For instance, one researcher's recruitment by an international pharmaceutical company paved the way for a couple of others to follow this route. Overall, the interviewees were satisfied with the employment they had gained, but even so they kept their career horizons open and were ready to move again in the future.

All in all, these interviews reflected very narrow visions of career building in academia, basically excluding options other than the vertical progression to the top of the career ladder. The university was viewed as a 'greedy organization' (Currie et al, 2000; Thun, 2020) which requires personal sacrifices but is not willing to give career security and support in return. This image became all the gloomier due to local conflicts with the merger partner, shaping the everyday life of the smaller unit. As a result, although the interviewees were motivated to undertake research work, in the end their visions of an academic career were not personally appealing enough, which ultimately made it easy to leave.

Discussion

This small–scale qualitative study of one biotechnology unit at one Finnish university shows the complexity and manifold tensions of academic career building in the current neoliberal higher education context. Although biotechnology as a research field matches the policy priorities of major scientific, societal and commercial expectations, the lived experiences of women researchers were far from straightforward success stories. Instead, their career visions were strongly shaped by the intersections of gender, disciplinary hierarchies and university institutional structures which worked to their disadvantage. After several mergers, their career building took place in the shadow of the bigger, more influential and male–dominated merger party, medicine, which created extra challenges for them in the already highly competitive and risky university environment. Yet, the researchers were no victims of the structural barriers but, rather, skilful actors who crafted personally meaningful careers both inside and outside academia.

In the career imaginaries identified in this study, professorship and tenure track structures had a key role. Although introduced only in 2010 in Finland, the tenure track model has shaped the ways in which a successful and valued academic career is made sense of. By 2019, it was already the most common way to recruit professors in Finland (Pekkola et al, 2020), creating elitism and polarization between those who are on this track and the vast majority working outside of it (Herbert and Tienari, 2013; Pietilä, 2019). The tenure track system puts those senior researchers, who in this

study are called academic entrepreneurs, in an awkward situation: they are, de facto, too qualified and established for the tenure track since these positions are usually targeted at rather early career academics. This darkens their prospects for career progression. Moreover, the tenure track model is deeply rooted in the meritocratic ideal that the best and brightest be recruited to top positions. Yet, this ideal has been repeatedly challenged by showing subtle and un-reflective biases, such as gendered pre-selection patterns and selection criteria as well as blindness to the life situations of candidates (van den Brink and Benschop, 2011; Acker et al, 2012; Nikunen, 2014; Nielsen, 2016; Herschberg et al, 2019; Pietilä, 2019; Thun, 2020).

Based on this study, it is evident that the socially available stock of imaginaries and narratives of academic career building are strikingly circumscribed and limited, involving only three possibilities: tenure track, academic entrepreneurship or leaving academia altogether. There seem to be no alternatives in the current university context that is 'inescapably competitive, individualistic and oriented to exchange value not use value' (Clegg, 2010: 359). Clegg calls for imagining higher education otherwise. On a similar note, Escobar (2020) extends this call to include the whole of society. He argues that the real, the possible and the political are all connected and, therefore, 'it is precisely because other possibles have been turned into "impossibles" that we find it so difficult to imagine other realities' (Escobar 2020: 3). Against this there-is-no-alternative rhetoric, he advocates the politics of the possible, or a way of thinking that another possible is possible – not least in academia.

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