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Changes in Funding and the Intensification of Gender Inequalities in Research and Innovation

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Introduction

The availability of funding is one of the central institutional constituents of research and innovation (R&I) in current universities and other R&I institutions. Universities are increasingly neoliberal and entrepreneurial (Ylijoki, 2003; Pereira, 2017; Rodrigo and Clavero, 2020), and access to competitive funding and the publications produced in competitively funded projects are key indicators when the success and trajectories of R&I are evaluated. The award of competitive funding justifies the subjects worth researching, researchers and R&I institutions, and it shapes gender and its intersecting differences in R&I. There has been a systematic disadvantage in women's and other minorities' access to competitive R&I funding (SHE Figures, 2018: 174; Burns et al, 2019; Rodrigo and Clavero, 2020). Although some funding agencies, in Ireland (Doona, 2020) and Nordic countries in particular, have conducted gender equality planning (Husu and de Cheveigné, 2010), gender inequalities have nonetheless remained persistent also in Nordic R&I (Griffin and Vehviläinen, 2021). In spite of the importance of the topic, the implications of R&I funding practices for gender and gender (in)equalities are under-researched, as Husu and de Cheveigné (2010) and Steinþórsdóttir et al (2020) have also observed.

R&I institutions are key sites for R&I work. These institutions respond to neoliberal science policies, and reward research groups and units as well as researchers that bring in highly competitive funding while simultaneously

employing researchers on fixed-term precarious work contracts (Ylijoki et al, 2011; Siekkinen et al, 2017). They also continue to perpetuate gendered practices and cultures, ‘corridor talk’ (Pereira, 2017), which shape the practices of R&I groups and units, including gender inequalities in recruitment and career promotion, and sexual harassment, implying disadvantage for women and minority groups (Husu, 2001; Acker and Armenti, 2004; van den Brink and Benschop, 2011; Nielsen, 2016; Murgia and Poggio, 2019). Researchers and researcher groups, women and minority groups in particular, grapple with the simultaneous presence of neoliberal and gendered practices in R&I, precarious work contracts and various gendered inequalities, and try to secure the continuity of their R&I work through gaining competitive funding, often in collaboration with international networks (Pereira, 2017).

The interplay between R&I funding and R&I work – and gender in R&I – is complex and has local variations across countries, funding agencies and R&I institutions. Governments allocate core funding to R&I institutions and resources to funding agencies which deliver these through an application process. Supranational actors such as the European Commission also grant competitive funding. Once secured, competitive funding gives credit in later applications. The sources of R&I funding fluctuate over time. The research intensities of countries, the share of Gross Domestic Product (GDP) spent on R&I, and resources delivered by funding agencies expand and decline (Eurostat, nd). Although the gendered access rates to competitive grants and the gendered practices of funding agencies are recognized in discussions about gender and R&I (that is, Van der Lee and Ellemers, 2015), there is little knowledge about the gendered complexity of R&I funding and its relations to actual R&I, and even less regarding specificities such as the gendered effects of the fluctuation in research intensities and changing resources provided by funding agencies.

This chapter addresses the changes in R&I funding sources since the mid-1990s, and in particular the expansion and subsequent decline in resources distributed by funding agencies in Finland. It examines the interplay between funding opportunities and gendered practices (Korvajärvi, 2011) in R&I that produce gender inequalities: intersecting social inequalities ‘that are more often experienced by women than men’ and that cause disadvantage for women (Evans, 2017: 9). Finnish R&I intensity was relatively high in relation to GDP by 2008 and then dropped dramatically from 2010 to 2015 (Eurostat, nd), with consequences for the resources of the funding agencies and the availability of competitive funding. It thus provides an interesting case study regarding this issue. Our data consist of biographical interviews, covering periods of expansion and decline in funding, with women who work in R&I, namely Health Technology (HT), a field that has been prioritized in Finnish R&I policies and is largely dependent on competitive funding and changes to the latter. We explore gender inequalities embedded

in R& work and the R&I work trajectories of women produced in part by changes in competitive R&I funding. We argue that significant changes in R&I funding involve a risk of deepening gender inequalities and can have negative implications for women's R&I work. The chapter articulates how this risk manifested itself in the reported lived experiences of women in R&I and in the (often contradictory) gendered practices of R&I institutions.

In the following, we discuss the literature on gender and R&I funding, and then describe the R&I funding system in the Finnish context as well as the data and methods and, before our discussion and conclusions, move to three key accounts of our analysis of gender and gender inequalities in the context of changes to R&I funding.

Gender in competitive R&I funding

The gendered implications of competitive R&I funding have been discussed in an increasing manner during the last decades by focusing on R&I funding agencies and the austerity measures in academia (that is, [Husu and de Cheveigné, 2010](#); [Moscowitz et al, 2014](#)). However, the complex interplay of funding, R&I institutions and the grassroots level experiences of women has rarely, if at all, been researched.

European and North American researchers have examined how R&I funding agencies make funding decisions in gendered ways. Generally, they found various forms of gender bias, for example that women get relatively fewer and smaller grants both in the US ([Hechtman et al, 2018](#)) and in Europe ([Van der Lee and Ellemers, 2015](#). [Rodrigo and Clavero, 2020](#); [Steinþórsdóttir et al, 2020](#)). [Husu and de Cheveigné \(2010: 58\)](#) further noted that the European countries vary significantly in gender equality planning by the R&I funding agencies. The Nordic agencies have paid the most attention to their gatekeeping roles in selecting the researchers and research to be supported. While women are in the minority in expert groups and decision-making bodies in many other countries, the Nordic research councils have introduced gender equality planning and gender balance in expert boards. For example, the Finnish National Research Council, the Academy of Finland, developed these practices from the 1980s ([Husu 2001: 85–9](#)). However, there is some variation among funding agencies within individual countries. In Finland, differently from the Academy, the Agency for Innovation has not incorporated gender equality planning in its activities, and in the US, [Burns et al \(2019\)](#) found differences in gender equality among the funding institutions. Gender equality planning is hence not self-evident, not even in Nordic R&I funding agencies.

The effects of austerity and cutbacks of research funding in the neoliberal academy have also been widely researched. These effects are often negative for R&I work, as austerity is used as a rationale for implementing neoliberal

values in academia and marginalizing minorities and work for diversity and equality (Ahmed, 2012; Moscovitz et al, 2014). However, an ethnographic study by Maria do Mar Pereira (2017) has shown that success in obtaining external competitive funding in cutback situations may also provide opportunities for the development of critical research.

In this chapter, we contribute to research on the gendered effects of competitive funding in R&I. Distinctly from studies of gender in funding agencies we contribute with a rarely acknowledged perspective of the reported experiences of women who work in neoliberal R&I institutions. And differently from austerity studies, we raise another rarely remarked upon phenomenon, changes in research funding in terms of national research intensities and the actual changes in the resources of funding agencies across previous decades. In the following, we describe more closely these contexts and explain the R&I funding system in Finland.

Funding in research and innovation

R&I work is primarily carried out in universities, research institutes, private companies and non-profit organizations. It is funded through various public and private sources: business enterprises, governments, private non-profit and higher education institutions, as well as international sources (Frascati Manual, 2002). Finnish universities receive governmental core funding through annual negotiations and agreements with the Ministry of Culture and Education and, furthermore, they can receive additional, largely competitive funding from various public and private sources. University structures vary but they usually consist of units with financial responsibility (faculties, departments, centres) which employ researchers and research groups. All these, from universities to individual researchers, apply for competitive funding. Competitive sources of funding have overtaken governmental funding in several countries (that is, Ireland, Sweden); in Finland they exceeded governmental core funding for the first time in 2001 (Tieteen tila, 2003: 54–5).

The level of R&I intensity, the R&I expenditure relative to GDP, has risen in the European Union since the turn of the century (Eurostat, nd). In Finland, however, it peaked in 2009 (3.73 per cent), after having grown from the mid-1990s (OECD, 2017: 18), and declined strongly from 2010 until 2016 (2.72 per cent). R&I expenditure nevertheless stayed at a relatively high level, with the EU average hovering at around 2 per cent (OECD, 2017: 18–19; Eurostat, nd). The increase of R&I expenditure in Finland until 2009 was largely due to the strong performance of information and communication technology (ICT) and the Nokia company in particular. Nokia was a major actor in research and development for several decades and then shut down substantial parts of this activity from the 2010s (OECD, 2017: 18). Private funding dropped from over 70 per cent of total R&I

funding in 2008 to 53.5 per cent by 2014 (Eurostat, nd). Conversely public R&I expenditure remained at around 1 per cent of GDP for decades (OSF, nd). Although the share of international funding for R&I in Finland grew between 2008 and 2018, varying from 6 to 14 per cent (Eurostat, nd), it did not offset the decline in national private funding. One effect was that the total number of full-time researchers declined both in the private sector and in higher education and R&I institutions in Finland, while it kept growing in Sweden, for example (Eurostat, nd). These changes in funding in Finland had significant effects on R&I institutions and the structure, work contracts and working conditions of their personnel.

Competitive governmental project funding has been distributed in Finland mainly through the Academy of Finland and the Finnish Funding Agency for Innovation which became Business Finland in 2018. The Academy of Finland funds individual researchers (postdocs, senior researchers and professor levels), research projects, centres of excellence in universities and research institutions, and more recently also universities as they build new research profiles. Its resources have remained steady and grown slightly (Tieteen tila, 2018: 12). The Agency for Innovation used to finance innovations and research–industry collaboration, where the funded project groups consisted of university research units and their researchers, private companies and often also public sector actors. Agency for Innovation funding increased until 2010 and then started to decline rapidly after 2011, following the pattern of the prevailing national research intensity (Tieteen tila, 2014, 2018). As the Agency for Innovation changed into Business Finland, the Academy of Finland to some extent took over its strategic funding function.

Research fields vary significantly in their use of competitive funding (Ylijoki et al, 2011). ICT sciences in Finnish universities covered nearly all their R&I costs through competitive funding in 2012, while in biomedicine it was 80 per cent, in electronics 60 per cent, about half in medicine, biochemistry, cell and molecular biology, and less than half in all other fields (Tieteen tila, 2014: 20–1). HT, a multidisciplinary field consisting of life sciences, medicine and technology, addressed in this chapter, has been one of the gainers of competitive funding. It was also one of the fields which was hit hard by the decline in funding resources from 2009. We shall now describe how we collected and analyzed our data in HT before we move to our analysis.

Data and method

The data consist of interviews, conducted between 2018 and 2020, with women in R&I under the multidisciplinary umbrella of HT. Twenty-eight of 30 interviewed women had PhD degrees, most commonly in bio or health sciences, or engineering, but also in social sciences, humanities or business

studies. All 30 interviewees were White, all but two born in Finland. Their ages ranged roughly from 30 to 60. Twenty-six had children (usually one to three). About half worked in universities and the others mainly in private companies and research institutes. Many of the interviewees had worked through the period when R&I funding expanded strongly in the first decade of the 2000s, and the period of declining funding (2009–16). Many had started research groups and had continuously acquired competitive research funding, even when national resources were scarce, while others had moved to research institutes outside academia or to the private sector.

The interviewees first talked about their R&I work histories. The interview themes consisted of their current work situations and future plans, the role of gender in R&I work and their work–life balance. The interviews lasted one to two hours and were transcribed verbatim. They were conducted and analyzed in Finnish, and extracts were translated into English for the purposes of this chapter. Our methodological approach is institutional ethnography which starts the analysis ‘in the actualities of everyday world, with the concerns and perspectives of people located distinctively in the institutional process’, and the ‘work knowledge’ produced in the interviews, and uncovers ‘the social relations implicated in the local organization of the everyday’ (Smith, 2005: 34–5). The analysis goes beyond the everyday world and explicates also translocal forms of coordination that organize the local activity, for example, the patterns of R&I funding, even if those were not always articulated in the interviews. We read the interviews several times and, firstly, used thematic analysis to identify experiences regarding gender that were reported in the interviews. All interviewees had observations to make about gender. Gender neutrality/irrelevance and individuals’ equal opportunities were emphasized (Korvajärvi, 2021). However, many also talked about gender inequalities in mundane R&I work and a few about sexual harassment and gender discrimination in detail, some in the context of declining funding sources. We traced gendered practices (Korvajärvi, 2011) that produced gender inequality in R&I work. Secondly, based on a thematic analysis, we selected key interviewees among the ones who talked about research funding (about half of all) and more specifically among the six interviewees who described how their R&I work and career had been affected by the changes in R&I funding, even though they had not been asked about funding (financial cuts in R&I were broadly discussed in Finland during the years of the interviews). Two of the chosen interviewees talked about gender inequalities and further explained two different kinds of funding arrangements taking place widely in the Finnish R&I (Academy of Finland, Agency for Innovation). The third selected interviewee was the one who articulated most clearly the effects of both the growth and decline of funding for her career, and we analyzed how mundane gender inequalities intersected her career. We built accounts based on each

interview by highlighting their ‘work knowledge’ regarding the effects that R&I funding had on their R&I work. We analyzed the interplay between gender inequality and the changes in funding in our data through the lens of these three accounts. In the following sections, we present our analysis through these accounts. The first one involves steady resources from the Academy of Finland and serious gender inequality as the funding declined in the research unit and at the university; the second turns to the Agency for Innovation funding and gender inequality as sources became scarce in the university unit. The third one did not articulate gender inequalities at all. However, the changes of funding again affected that person’s R&I work and career path in R&I.

Gender inequality in recruitment within declining funding

The first account centres on Mirjam (about 50 years old) who had a background in engineering and had worked in multidisciplinary research since her Master’s degree. Her unit provided excellent guidance and projects, implying a good funding period. She made extended visits to foreign universities through her supervisor’s contacts, which is considered an important dimension of academic career development in Finland. She established a research area of her own at the ‘frontlines’ of international research. Additionally, she learnt to write successful grant applications. She wrote her PhD thesis as part of a funded research school (four years). After completing her PhD, she received, through her own applications, individual and research group funding from the Academy of Finland. She said that she was well respected in the unit that she worked in and was invited to join various funding consortia.

Mirjam’s career path began along the four-stage career model promoted by the Ministry of Education and Culture (MEC, 2016: 17) and the European Science Foundation: doctoral student, postdoc, senior researcher and professor. She had moved to career stage three, senior researcher, with a research group of her own. In contrast to most other higher education positions, stage four professor posts, funded by university core funding, are mainly available through advertised vacancies, and their number is limited (Vipunen, nd). In Finland, as in several other countries (van den Brink and Benschop, 2011; Nielsen, 2016), there is no self-evident continuation from stage to stage of the four-stage career model. Mirjam did not get a professor position to run her research group. She explained that research funding had started to decline and described how male networks worked to give the professor position to one of their members: “And then this person, he quite quickly got a professorship here at the university, and I’ve still not ever gotten anything at all. ... They’re part of this circle of friends and it

makes sense that this person is a professor there, there supporting those other friends who are men.” When resources became scarce, male networks banded together. Although Mirjam, with her successful external funding and research group, had been welcomed and supported throughout her early and mid-career in the period of expanding funding, she now became excluded. Male networks were mentioned in many interviews. The interviewees were aware that they existed at the university and in the region. They are not a new phenomenon (Husu, 2001; van den Brink and Benschop, 2014), and are present in male-dominated fields in particular. They remained idle and relaxed as long as funding resources were plentiful. During that time, expanding projects needed a labour force, and women’s participation was useful there. During periods of plentiful funding, all successful funding, including that of women, gave credit to the network members. However, as the resources declined, the network closed ranks.

At the time of the interview Mirjam continued to do R&I work in an R&I institution through international collaboration. Her university unit welcomed prestigious (international) resources, and she had also once more received national research funding. Nevertheless, her situation in the local academic hierarchy remained precarious.

Coping with innovation funding and gendered inequality

The second account features Katarina (also about 50 years old) who did her Master’s degree during the period of expanding funding. She taught and worked in projects funded by the national Agency for Innovation and had a place in a funded doctoral school. Just a few weeks after completing her PhD she gave birth and spent the following year on parental leave, but continued to teach for a few hours weekly. Her PhD thesis established a new field and her unit received additional funding to develop it further. However, as she was on leave, she was not given any role in the new project that was based on her PhD:

‘There were two kinds of disadvantages as a woman, I’d say, so one was that I’ve now sort of created a new field there, which would be worthwhile to research and they got the project and the money. And I couldn’t be part of it because I was on maternity leave ... it’s that when you have a project you hire the people when you get the money, you can’t wait like, let’s wait a year, for that person to come back.’ (Katarina)

Katarina acknowledged that the Agency for Innovation funding involved industry partners and deadlines, and the R&I unit could not wait for particular researchers to come back from their leaves, even if they had been the initiators and innovators of the project. However, another interviewee

explained that the head of her unit made sure that she had a place to come back to from parental leave into an Agency for Innovation-funded project. Katarina's unit did not do this but instead excluded her from the project. In her own mind, she had not faced gender discrimination, even though she thought that being a woman was a disadvantage. She said that there was nothing to be done. However, she did not receive all possible support from her superiors either. Furthermore, she did not get the academic credit that she would have deserved as her thesis was the starting point for the new project, and this points to gender inequality. There is also the obvious penalty that she paid for having gone on parental leave.

Katarina also had a Business Studies background and, after coming back from parental leave, she found a new job to commercialize university research: "So I've gone into this chief development officer position that was selling the university's research findings, specifically in this bio field, overseas." Science commercialization was emphasized and intermediaries and science parks were built within or near universities, following the national science policy. This was also the case in other western countries (Pelkonen, 2003). Katarina worked broadly internationally. In her own words, she worked successfully for a couple of years with a colleague and wrote a business plan for a new research centre. However, this was when the funding situation started to change; private R&I funding had already declined, and Agency for Innovation resources were also declining. She was not offered a job in the new centre, although she had been a main planner for it, and instead her male colleagues arranged the job to go to her male collaborator:

'Unfortunately that endeavour ended when the funding ended and [the new RI centre] didn't have funding yet. And at that point it felt a bit like, men were drawing together, how should I say it, that although I was such a big part of [the preparations], it felt like it was each to their own, and there was one person who got sort of temporary funding, for him but not for me. I feel like it was a grave injustice. And at that point I left for [private company] [laughs].' (Katarina)

This interview account is reminiscent of the interview with Mirjam and two other interviewees. These women were appreciated as competent colleagues as long as a good funding situation prevailed. When the funding declined, the male networks excluded them and treated them unequally (Berger et al, 2015). As the other cases were examples of professorship recruitments based on university core funding, Katarina's account shows that such exclusions could happen both at lower career stages in R&I organizations, and also in the context of innovation funding. Katarina acted differently from Mirjam who continued to carry out research at the university with competitive project funding. Katarina had worked in science commercialization and

was invited to join an R&I company. By the time of the interview, she had worked in a leading position there for several years.

From hype to declining resources

The third account concerns Tuija (35–40 years old) who entered a female-dominated research group during the heyday of a newly emerging field. Although she was rather ambivalent about her aims and her ‘match’ with that field, she became drawn into a research group to do her Master’s thesis, even though she was still completing her Bachelor degree, and into doctoral research while she was still working on her Master’s. She got four-year funding for her doctorate:

‘We had big Agency for Innovation funding, Academy funding and money did also come in then. It was like money came to money, that we got research funding pretty well in the beginning. And, of course at that point it’s pretty nice to jump into the academic world, when it is in that kind of hype.’ (Tuija)

Like Katarina, Tuija gave birth to her first child right after completing her PhD. After her parental leave, and a few months of unemployment, she started at another university in Finland. She was supposed to write research applications for herself and for a newly established group to help the group leader, and then she faced the decline of funding: “2015, ... then at the same time as these cuts in education started coming from the government ... research funding decreased all the time”. Several interviewees described how application writing had become more demanding, requiring more and more persistent and continuous work as the competition became fiercer. During the same years, she had a second child and took further parental leave. She was supposed to write an individual application to gain funding for herself and her research right after she came back to work. Academy funding had not decreased at that stage, and she might have got some, but she failed to write an application and moved to a private company as a particular kind of expert.

Other interviewees shared these experiences. They had received secure funding for their doctoral research and at the point of declining resources became anxious since they were expected to acquire their own funding, common for fixed-term employees in academia in Finland (Siekkinen et al, 2017). They, like Tuija, left academia with ambivalent feelings and found relevant work in private companies.

Tuija’s case demonstrates a particular risk in relation to major changes in R&I funding. When there was significant funding, large groups of researchers were recruited at the same time, differently from the gradual recruitment

that occurs in periods of steady funding. Although these circumstances of multiple simultaneous appointments provide research opportunities, they also tend to have negative effects on researcher training and productivity in research (Poropudas, 2018). Here the interviewee did not need to learn to write applications independently, although she might have participated in applications led by others. As the funding opportunities diminished, the competition became harder, and she badly needed the skills necessary to write a successful funding application.

Tuija did not mention gender inequality at all. Rather, she stated that she had never experienced any discrimination. She had received funding for her PhD and collegial support in her groups. She was not dealing with any straightforward gender inequality that took place in the context of funding changes. Instead, there were subtle processes during the change from expansion to decline that made her vulnerable and unable to move on in academic research. Furthermore, the period of declining funding hit Tuija while she was on parental leave. She took one-year parental leaves twice, as is commonly done by highly educated women in Finland (Salmi and Närvi, 2017: 71). The first time she did not have a job waiting for her, and the second time she returned to a fixed-term position for her ‘mission impossible’, to write a highly competitive application. The changing financial situation and precarious work situation were a double-edged sword for her: it invited one to take parental leave, as this was an attractive personal solution in precarious work situations, and it also made it hard to come back and continue in highly competitive academic R&I. There were subtle gendered relations that came together and produced disadvantages for her and her trajectory in R&I.

Discussion

The expansion of R&I funding in Finland until 2009 provided opportunities for many interviewees to become qualified researchers and to visit foreign universities with world-class research groups, the latter being an important requirement in Finnish academe. Many interviewees were offered full-time job contracts to do their PhD, which was, if not the norm, a common practice in natural, medical and technical sciences, different from the social sciences and humanities where doctoral students often had to secure their grants themselves (Hakala, 2009). Many were able to establish research groups of their own with competitive funding (SHE Figures, 2018: 174).

In this chapter, we analyzed how the significant changes in Finnish R&I funding intersected with gender inequalities. Although not all gender inequalities in our data were rooted in funding changes alone, we suggest that the major decline in funding after 2009 provoked particularly prominent forms of gender inequality, as both Mirjam and Katarina experienced. As

studies by Berger et al (2015) and van den Brink and Benschop (2014) also showed, male networks, in academia, and between academia and industry, worked to provide positions for male colleagues in male-dominated research communities when resources became scarce. This particular form of inequality had major effects on both Mirjam's and Katarina's opportunities and trajectories in R&I work. They could not get the promotions that would have enabled them to continue their career paths as they had intended. It also disrupted researchers' work in their groups as they needed to find new supervisors and new institutional settings.

The third account, Tuija's, hints at a more subtle relation between gender inequality and funding. The rapid expansion of funding provided great opportunities for (too) many, and research groups did not oversee and instruct young academics in all academic skills, as suggested also by Poropudas (2018). When the decline of resources hit, many were not prepared for this and it became difficult to act and continue R&I work in a purposeful way. Many researchers with fixed-term contracts were distressed by constant application work in situations of heightened competition (Siekkinen et al, 2017), and the major decline in funding intensified this further. This affected more women than men as fixed-term contracts in Finnish higher education, more than the EU average, involved almost twice as many women as men in 2016 (respectively 12.6 per cent and 6.9 per cent: SHE Figures, 2018: 99).

Furthermore, discussions of the reproductive body and having young children appeared in all of our three key interviews. The significance of the reproductive body is difficult to recognize and articulate, as has been shown in Pecis' (2016) study. Katarina's original contribution to a new project was not acknowledged because she was on parental leave in the early stages of the new project. Mirjam also told us that she started to lose support in her unit after she had had children. Tuija was on parental leave twice and then experienced difficulties returning to fixed-term work. She was no longer as well supported as she had been during her doctoral studies. The negative effects of a neoliberal science policy and the academy for women have been reported across the globe, for example, in Australia (Blackmore and Sawers, 2015; Toffoletti and Starr, 2017); Italy (Pecis, 2016); Norway (Thun, 2020) and Finland (Nikunen, 2014). Pregnancy and the period when children are young stand out as particularly vulnerable times for mothers in the neoliberal academy. Our study suggests that the reproductive body and young children intensify gender inequalities and diminish opportunities when significant changes in R&I funding take place. More research is needed on this phenomenon.

The practices of the funding agencies matter. Many interviewees received funding from the Academy of Finland – although it could take as long as three years of repeat applications to succeed – and this funding supported their R&I work and career. Agency for Innovation resources require

university–industry collaboration, and projects are built on networks in both. In contrast to the Academy and the Swedish Innovation Funding Agency, the Finnish National Agency for Innovation had done little if any gender equality planning. Although some R&I units were able to see that researchers on parental leaves maintained ownership of their work, including in Agency for Innovation–funded projects, other applications and projects markedly made room for old boys’ networks. The Agency for Innovation did not pay attention to the continuity of the R&I careers of those temporarily on parental leave – women more often than men. Innovation funding stands out as a resource where the expansion and decline of funding created a particular risk of gender inequality.

The practices of particular funding agencies intertwined with the overall changes in R&I intensity. (Professor) positions funded through university core funding became more valuable as R&I intensity declined, and not even excellent competitive funding brought into the unit could pave the way to those positions, if they were controlled by old boys’ networks. Competitive funding provided only conditional, precarious R&I paths, as Pereira (2017) has also observed.

Conclusions

In this chapter we have explored how major changes in competitive R&I funding, one of the cornerstones of the neoliberal academy and R&I, produced risks for women and their opportunity to advance their R&I work and career paths. Our study supports findings from elsewhere that financial cutbacks cause gender inequalities in neoliberal universities (that is, [Blackmore and Sawers, 2015](#); [Pereira, 2017](#)). Additionally, it suggests that major fluctuations in funding, expansion and decline following on from each other, create a significant risk of creating and/or reinforcing gender inequalities.

From the perspective of women in R&I work, it is the R&I institutions that play the significant role (also [Griffin and Vehviläinen, 2021](#)). Neoliberal R&I institutions, their units and research groups welcome competitive funding in growth periods and recruit personnel to conduct R&I. Some research groups train those recruited to cope with the expanded tasks of the neoliberal university and support women through their parental leaves, while others do not. And it is R&I institutions that allow old boys’ networks to dominate as resources become scarce and women find themselves excluded in R&I. These gender inequalities played a role when women unintentionally leave academia for good or remained in marginal positions. Our study calls for gender equality work that takes into account changes in R&I funding that inevitably occur in R&I institutions, funding agencies and R&I policies.

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