

Routledge Research in Gender and Society

GENDER AND PRECARIOUS RESEARCH CAREERS

A COMPARATIVE ANALYSIS

Edited by
Annalisa Murgia and Barbara Poggio



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1 Gender and precarious careers in academia and research

Macro, meso and micro perspectives

*Rossella Bozzon, Annalisa Murgia and
Barbara Poggio¹*

Introduction

Over the past few decades, the world of academia and research has undergone substantial transformations, which have deeply affected both the production models and practices of science, as well as on-the-job experiences within this sector. In particular, a commodification process has occurred, which has gradually turned higher education into fertile terrain for marketisation agendas (Levidow 2002) and has changed universities from education institutions into business organisations with accompanying productivity targets (McNair 1997).

This process has been highlighted by the progressive decrease in public investment, which has subsequently led to a greater need to search for funds and external funding. On one hand, this has resulted in an increase in competition between *and* within the organisations, whilst on the other hand it constitutes the cause of growing instability in terms of working conditions and careers.

What are the implications of such transformations for those who work in the world of academia and research, and above all for those who are approaching this world today? Early career researchers – who despite the low chances of success still try to enter this particular job market – will have to make a significant investment, both in terms of time availability and in identity construction. On one hand, if research as a job has always been known for its strong overlap between working hours and time devoted to the rest of life, the current processes have put researchers under even more pressure, with the working environment becoming all the more frantic and frenetic. On the other hand, the emerging organisational models contribute to defining specific subjectivities, able to respond to and comply with the demands of individualisation, competition and complete dedication to work imposed by the new agenda and the increasing casualisation of the academic workforce.

This chapter therefore focuses on how such processes tend to intensify the already significant gender inequalities present within the academic context. To understand the processes of precarisation, different levels of analysis need to be adopted. First, the focus is on precarious work as a condition that is atypical and contingent, characterised by uncertainty, unpredictability of income streams, insecurity, vulnerability and lack of protection and regulation (Crompton, Gallie

and Purcell 2002). Second, attention is paid to precarisation conceptualised as a major trend of the entire corpus of social relationships, now destructured by the diffusion of risk (Beck 1992), and on precariousness as “an experiential condition investing a person’s life as a quality inherent to that person and his/her specific position” (Armano, Bove and Murgia 2017, p. 4). Focusing on academia, the aim is then to examine the increase of temporary jobs, but also how early career researchers experience precariousness in their everyday organisational lives, biographical contingencies and personal aspirations, and to explore the ambiguous and composite processes that underpin academic careers. Researchers, in fact, are required to be the work that they do, without distinction between work time and other times, between home and work. They must devote relational and emotional skills to production, and must equally be voluntarily and wholeheartedly committed to the fulfilment of their professional goals. In this scenario, on the one hand, early career researchers experience significant degrees of freedom, in which research is seen as a ‘dream job’. On the other, they are confronted with strict rules of competition, combined with an ‘extensification’ and ‘overflow’ of work, finding themselves alone in dealing with uncertainty about the future. In order to understand how gender differences are embedded in these ambivalences, the growing phenomenon of precarisation in higher education needs to be further investigated.

This chapter will thus emphasise the relationship between gender inequality and precariousness in the world of research on three different levels of analysis, which are deeply interwoven. This will allow the reader to examine gender differences among early career researchers from different perspectives: first, from the point of view of the academic labour market, second from an organisational standpoint, and finally by looking at the experiential and subjective dimension. The conclusions will include a reflection on the policies and practices that can counter the reproduction of gender inequalities in the world of research which – for early career researchers – are tightly interwoven with current precarisation processes.

Gendered careers in the academic labour market

Higher education and research have to cope with the conflicting pressures embedded in long term trends in modern societies. University systems are undergoing a global process of change that affects the economic and social role played by higher education institutions, their organisation and inner structure (Maassen and Stensaker 2011; Reale and Primeri 2015), as well as the position of the academic profession (Machado-Taylor, Meira Soares and Teichler 2017). Such transformations are related to the phenomena of globalisation, the expansion of a knowledge society, the growing importance of education systems – which are taking on an increasingly central role – and the transformation and decline of the welfare systems and the renewed relevance of the ‘market forces’ in defining economic and social policies (Scott 2009). The increase in the number of people, especially women, who pursue a PhD and try for a career in the world of

academia and research (European Commission 2016) is compounded by levels of competition generated by recent transformations in the academic labour market, in the management of higher education institutions, and in the regulation of academic careers. On one hand, a number of transformation processes involve all countries, such as the commodification of research activities, higher investments in the STEM field, the preponderance of applied scientific knowledge that fits the demands of the market, as well as the spread of diversification and specialisation processes related to academic work. On the other hand, the results of such trends and their effect on both early career stages and gender inequality in academia are mediated by how the previous institutional structures, the regulation of academic careers, the labour market(s), and the welfare and gender regimes act as a 'filter' for these global pressures (Marginson and van der Wende 2007; Enders and de Weert 2009; Le Feuvre 2015).

This section is thus dedicated to describing how the main macro and institutional trends affecting the regulation and management of higher education systems and institutions are in fact redefining the demand for academic work. Attention is also paid to the ways in which different scientific disciplines are appreciated and considered more or less prestigious in the process of knowledge production, division of labour and flexibilisation during the early stages of academic careers, thus affecting the conditions and factors fuelling and (re)producing gender asymmetries.

The transformations of the demand for work between marketisation and growing competition

National university systems in general, as well as academic institutions in isolation, are confronted by contexts of an increasingly competitive and globalised nature. On one hand, the establishment of a knowledge-based society has strengthened the role of academic institutions in the 'production' of highly specialised skills, which are necessary to face the challenges of such a knowledge-based economy (Marginson and Rhoades 2002). On the other hand, the increased availability of a highly educated workforce and the importance of scientific and technical knowledge have facilitated the generation of new market areas, where one can develop and endorse research and educational activities. Such new areas go beyond national, disciplinary and institutional borders, and challenge the leadership position held by higher education institutions in this field (Enders and Musselin 2008; Marginson 2011). In this very same context, the crises faced by welfare systems, along with cuts to public spending, have had various effects, including the reduction of public investment in the higher education sector (De Boer, Enders and Leisyte 2007). From the mid-1980s onwards, in fact, there has been a growth in the neoliberalisation and corporatisation of academia (Olssen and Peters 2005; Rhoades and Torres 2006). Academic policies and practices have become increasingly dependent on market forces and values, while higher education institutions have been progressively characterised by management models which fit the New Public Management principles

(Kogan and Teichler 2007; Lynch 2014). Such principles are oriented towards productivity, performance and excellence – principally defined in terms of the number and quality of publications produced, levels of funding obtained by both public and private bodies, and by the number of graduates ‘produced’ by universities (Teelken 2012). On top of that, higher education institutions are being constantly evaluated, validated and controlled (Enders and de Weert 2009).

In the face of the growth in the number of PhD holders and researchers, academic institutions are experiencing a decrease in their capability to absorb this new workforce and a simultaneous increase in workforce casualisation affecting academic staff, which takes place in a context of spending cuts and cost rationalisation of academic and research work (Kogan and Teichler 2007). At the same time, there has also been an increase in the demand for research competences coming from non-academic institutions and from the private sector – although this dynamic is not homogeneous among different research fields and countries (Le Feuvre 2015). It is important to consider these alternative areas in order to better understand the position of PhD holders in national labour markets. Some countries, such as Germany, Switzerland and the UK, stand out for how well they can place PhD holders in qualified positions within the non-academic labour market (Science Europe Working Group on Research Careers 2016). The situation in other countries, on the contrary (such as Italy and Portugal), demonstrate how qualified job opportunities for their PhD holders are still to be found, all too frequently, exclusively in higher education institutions. In general, the availability of qualified positions in a non-academic context strengthens the position of those approaching an academic career, and therefore dictates that universities maintain competitive working conditions compared to those from other, non-academic sectors, all in order to keep the most skilled people inside the world of academia. When working conditions available outside become better than the ones offered by a university, the latter becomes less attractive. This facilitates something akin to ‘male-defection’ with men leaving the academic world, resulting in a consequent increase in the number of women (Le Feuvre 2015). As a matter of fact, competition with non-academic fields is clearly marked by the type of discipline studied, and by gender. Non-academic research areas typically attract scientific, mathematical and engineering knowledge (Auriol, Misu and Freeman 2013) while the number of women in the private research sector is markedly low. The Innovation Union Competitiveness Report 2013 highlights that, despite the fact that 33 per cent of researchers in Europe are women, they make up just 20 per cent of researchers within industry.

The increase in competition within and between higher education systems, coupled with the marketisation of academic and research activities, have imposed the ‘academic enterprise model’. This model affects how university rankings are developed, and has consequences for the type of knowledge produced, and the way knowledge is produced. Higher education institutions are exhibiting a declining interest in developing basic, discovery-oriented research, and thus focus more attention on applied research with more practical and market-oriented concerns, especially in the scientific, engineering and technological disciplinary

sectors. This happens at the expense of the already scarce resources in the humanities and social sciences (Kogan and Teichler 2007; Scott 2009).

These dynamics are central in the definition of academic and scientific prestige criteria between higher education systems and institutions. In fact, the increased importance of STEM fields has led to the import of performance evaluation and scientific recognition practices, which are typical of this field, into the SSH field. Such criteria play a significant role in scientific competition on a global scale (Marginson and van der Wende 2007; Sadlak and Liu 2009), which is oriented towards the pursuit of an ideal ‘world-class university’ (Shin and Kehm 2013; Paradeise and Thoenig 2015) and towards the allocation of resources (scholarships, postdoctoral fellows, grants and awards) between fields of study (Blackmore 2015).

The internationalisation process concerning prestige and academic recognition is not, however, symmetrical across countries and different areas of the world. Indeed, it is influenced by a country’s history, culture and language, and all these factors play different roles within their national academic systems. Although higher education institutions are pushed towards conforming to international standards in terms of performance, evaluation and international reputation, the situation in many countries reveals that their parameters regarding university and research evaluation are still rooted in specific national practices when it comes to how a career is structured and how academic institutions are financed. This tension between internationalisation and specific national features produces a fragmentation of the academic market and a disadvantage for non-English speaking countries, where scientific knowledge is produced in a certain language, and where the practices concerning scientific recognition are not aligned with the ones that are widespread in natural, engineering and medical science fields (van Raan 2005; Marginson and van der Wende 2007).

Even though increased marketisation, levels of competition and standards are perceived as objective and neutral, the main transformations of the demand for academic work – and for non-academic research work, too – are driven forward by scientific, engineering and technological disciplinary sectors. This then, far from being neutral, fuels old gender inequalities in the jobs available in these sectors (Lynch 2010; O’Connor *et al.* 2015). The object of research, the way research is conducted, and the value assigned to a specific activity also expose how gender relationships, power and knowledge within the world of academia, and within society in general, actually work (Connell 2006). In this sense, the academic (and non-academic) labour markets offer more chances for development and better working conditions in male-dominated disciplinary sectors. A trend is consequently evident in the investment of resources, and in attracting scientific and technical competences that are more easily found among male PhD holders (O’Connor *et al.* 2015). This dynamic is facilitated by persistent gender horizontal segregation and female under-representation in the educational programmes available in the STEM fields (European Commission 2016; O’Connor, O’Hagan and Gray 2017). Where scientific recognition and the evaluation of excellence are increasingly focused on productivity, performance and

entrepreneurship in the context of research, one can also see a gradual devaluation and subordination of SSH competences, compared with the ones that can be found in the STEM fields (European Commission 2012).

Flexibilisation and fragmentation of academic work

If the focus shifts to academic careers, empirical evidence reveals how such careers have never been as unstable and competitive as they are now (Kwiek and Antonowicz 2015). The early stages of a career – i.e. the phase between completing a PhD and obtaining a stable position in academia – are particularly delicate (LERU 2014; Science Europe Working Group on Research Careers 2016). Such a phase stands out for its increasing instability levels and the gradual exclusion of most early career researchers from the academic career system (Le Feuvre 2015).

The current transformation of academic work is fuelled by two central processes: diversification of academic activities, and specialisation of academic work, both of which are reshaping career trajectories and the division of labour *within* the academic profession (Enders and de Weert 2009).

In terms of ‘diversification of academic activities and tasks’, there now exists a much broader and more formalised variety of options compared to the situation in the past, when academic work could be divided into two main categories: teaching and research (Bourdieu 1988; Musselin 2007). Activities involving faculty members nowadays consist of writing proposals, developing contracts, designing teaching programmes, developing e-learning programmes or being engaged in technology transfers (Enders and Musselin 2008). When it comes to processes related to starting a career, being selected for some activity and advancing one’s career, management competences (planning, managing and coordinating projects and research teams) have become just as relevant as indices certifying the scientific research profile of candidates. The range of requirements has thus become much broader in order to access permanent positions.

Alongside the diversification process of academic activities, we see another practice advancing, namely the process of “specialisation of academic work” (Musselin 2007), commonly manifested in the fragmentation of job positions related to specific tasks (either teaching, research or administrative tasks). This specialisation of academic work represents one of the vehicles used by academic institutions to manage costs. Such cost-cutting has been undertaken by assigning teaching and research activities from permanent staff to temporary staff, thus fulfilling the increased demand for such activities (Teichler and Höhle 2013; Blackmore 2015). These positions are regulated with non-standard contracts, either temporary or part-time, which generally tend to prove more unstable and less remunerated than open-ended positions.

Academic contract fragmentation has been facilitated by deregulation and flexibilisation processes, which in turn have exemplified national labour markets over the past few decades. This has led to a growing number of non-standard

jobs across the board (Eichhorst and Marx 2015). Doherty and Chalsege (2014) show how many of the short-term research positions available in academia have no social security coverage (e.g. statutory/supplementary pension rights, health-care, parental and unemployment benefits, and sabbatical leave). Such lack of security becomes particularly evident in those contexts where national welfare systems offer weak and residual support in the management of employment instability, and where little unemployment benefit is available. Such meagre benefits do not allow for effective management of transition periods when changing jobs, which proves to be the case in Southern European welfare systems. A typical, or rather, extreme, case is the Italian one, where the ‘*assegno di ricerca*’ – a form of contract used to manage the early stages of an academic career after completing a PhD – consists of a scholarship which does not permit access to the majority of social protection measures (Bozzon *et al.* 2017). In the long run, the prolonged use of such contracts leads to a limited accumulation of social rights. The most extreme cases concern people with a lack of accrual rates for those years of service when contributions were found to be irregular. Such shortfall in contributions is often attributed to frequent job changes, periods without paid contracts, as well as to the difficulties met in transferring pension benefits, which have been accumulated in different countries. This often proves impossible, given how geographic mobility is a distinguishing feature of research careers (LERU 2014).

The ways in which both diversification processes on one hand, and specialisation of work on the other, are affecting and changing career trajectories of early career researchers, are mediated by national academic career models. This is possible due to both the availability of tenured positions, and of regulation, in terms of how one can access such positions (Musselin 2005). While they are all very different from each other, all academic career tracks share one typical feature: an early stage (which can be of varying length) based on temporary research positions and short-term teaching duties. During this time, one can improve one’s professional and scientific profile (publications in accredited journals, access to research funds, national and international research networks, teaching experiences) in order to be able to compete for a permanent position. In most cases, open-ended contracts lie at the top of the academic ladder, between full and associate professors, and can therefore be accessed only after a long time spent strengthening one’s scientific career track from one job position to another. In some contexts, such as in France and Italy, obtaining the first stable position is related to a national accreditation system, a formal procedure certifying the preparation of the aspiring academics, which can be obtained after pursuing a PhD (Lissoni *et al.* 2011; Marini and Meschitti 2018). In other cases, such as Germany, the Netherlands, Switzerland and Belgium, the career models are dictated by time limits (academic or biological age), both formal and informal, by which one needs to reach certain goals. Not reaching certain achievements ‘in time’ entails being excluded from the competition for a permanent position. There are also other situations, such as the US and in the UK where obtaining a tenure-track position is a relatively quick matter, although

building a research-oriented academic path is often reserved for a limited number of early career researchers, due to the high number of teaching-only positions.

The key point is that, regardless of the career model, the number of research-oriented permanent positions is dropping, while the number of requirements – which are becoming more formalised – is increasing. In addition, access times are growing ever longer, while competition is becoming ever more ruthless, all with uncertain results. Therefore, most PhD holders approaching an academic career will still have to resort to alternative career options, regardless of the quality of the scientific and professional profile they have achieved in the meantime (Peterson *et al.* 2012).

Although the information available on academic careers often does not allow for adequate monitoring of academic temporary positions, since they are characterised by high instability and mobility as well as by a high level of heterogeneity across academic systems (Bozzon 2015), the data available reveals that PhD holders approaching an academic career are exposed to the tangible risk of being trapped between temporary research or teaching appointments (LERU 2014). In most cases, the chance to fulfil one's career aspirations by obtaining a permanent position materialises only after a long time, by which time it becomes difficult to change track. The parameters regarding academic recognition are biased towards academia and are thus not recognised in other sectors. The longer one remains in this situation, the higher the risk of being excluded and forced to accept underqualified positions that do not match the interests and knowledge developed in one's professional and scientific path (Neumann and Tan 2011; Wei, Levin and Sabik 2012), either inside or outside the higher education sector.

Gendered consequences of the transformation of academic careers

The dynamics that lie at the heart of the precarisation process of academic careers are, typically, those of tough competition, as well as multiplication of tasks and competences, all combined with the fragmentation of employment contracts. Developing a scientific and professional profile – one that is competitive whilst meeting the standards to access a permanent position – is made more complicated by the instability of the conditions of the job offered in the early stages of career. In order to avoid interruptions in their career track, early career researchers need to deal with frequent mobility between jobs (between different institutions and countries). Additionally, they are not well-paid, and are granted little social protection by those short-term positions available. They also need – unless they are supported by their partners or families – to reconcile more than one contract and activity with different tasks and projects, in order to ensure a sufficient income whilst at the same time developing a full academic curriculum. Furthermore, they are constantly exposed to evaluation and performance control processes (Le Feuvre 2015). The combination of these conditions has several gender implications (Cruz-Castro and Sanz-Menendez 2010; Goastellec and Pekari 2013; Blackmore 2015).

First of all, the academic research positions, teaching jobs and administrative tasks available are not equally accessible to male and female PhD holders. On one hand, this is due to the fact that, as previously described, male-dominated research fields occupy a better position in the global research market and are better paid (Canal-Dominguez and Wall 2014), and female early career researchers struggle more than their male colleagues to obtain funding for their postdoctoral research (European Commission 2016). On the other hand, this is also because – as will be described later – there are now new forms of the division of labour, which are based on traditional gender orders and which lead women to more frequently find a job in a less prestigious position when it comes to academic selection procedures and scientific accreditation, such as in the case of administrative and teaching positions (Auriol, Misu and Freeman 2013; Thornton 2014).

Contract specialisation and work segmentation therefore lead to the collection of different titles and competences depending on gender, thus influencing actual career chances, career tracks inside and outside academia, as well as the way early career researchers can be ‘trapped’ in temporary positions. Furthermore, the excessively heavy workload characterising the early stages of a career, combined with the long waiting time before finally obtaining a stable position, together with the instability and uncertainty of results (Ackers and Oliver 2007; Teichler and Höhle 2013) all push women (more frequently than men) to seek their professional fulfilment in a job which is seen as ‘easier to control’ and less invasive of the private sphere. Such is the case in administrative activities or other tasks supporting research (Blackmore 2015), or even of other job positions outside the world of academia and research (Bozzon, Murgia and Villa 2017).

Moreover, high workloads and high expectations in the early stages of an academic career exacerbate existing incompatibilities between work and life. The interferences between career and private life are felt especially by those experiencing more unstable conditions, with more mobility and reduced career prospects (Lind 2008; Bozzon *et al.* 2017). Such situations are generally experienced by women (Ackers 2008; Leemann 2010). In addition, the pressures typical of academic careers in their early stages do not come alone: they often occur at that age when one is possibly starting to think of planning a family (Ward and Wolf-Wendel 2004; Nikunen 2012).

Several researchers have demonstrated how such problems, which arise during the early stages of academic careers, affect men and women differently, and that women are at a disadvantage when it comes to career advancement (Palomba and Menniti 2001; Blackwell and Glover 2008). For example, having children is still an obstacle to obtaining a stable position in academia for women, regardless of their scientific profile. It has been estimated that, *ceteris paribus* – all other things being equal – men who have children within five years after completing their PhD have a 38 per cent greater chance than their female colleagues who have had children over the same period of achieving a permanent academic position (Puljak and Sharif 2009). Furthermore, those women who acquire a permanent position are more frequently single and without children

compared with their male peers (Palomba and Menniti 2001; Mason and Goulden 2002). This does not mean, however, that women who do not have children have the same career chances as their male colleagues (Palomba 2008).

Academic and research careers, therefore, generally continue to be shaped by traditional gender models, which are binding for female researchers, and this happens more frequently to them than to their male colleagues (O'Connor *et al.* 2015). It is no coincidence that when considering a job offer, female researchers seem to pay more attention than male researchers to possible gender equity policies and work–family balance services, such as the recognition of maternity and parental leave in the computation of their ‘academic age’ during selection procedures, as well as when research resources are appointed (Janger and Nowotny 2013). It has been observed that welfare systems and gender regimes that are more inclusive of women in the (academic) labour market prove not to be robust enough to counter gender asymmetries present in academia (Le Feuvre 2009, 2015; Solera and Musumeci 2017). However, the availability of policies to reconcile work and private lives, as well as having to handle the pressures that working and geographic mobility entails, can in fact make a difference in giving direction to career strategies and retain women (and men as well) within the world of academia and research (Tzanakou 2017).

Ultimately, it is necessary to emphasise how gender inequalities in academia and research cannot be analysed only by looking at the transformations occurring within institutional frameworks, market structures and academic employment. Indeed, one needs to include other factors and dynamics which are active on other levels of analysis, both meso and micro. The first step requires shifting the focus of the analysis to organisational and cultural factors and, in particular, to organisational and gendered practices that are typical of contemporary higher education institutions and that outline selection procedures, academic accreditation and recognition (Poggio 2017).

Gendered organisational culture in higher education institutions

The presence of gender inequalities in scientific organisations is nothing new. The world of academia and research has long been characterised by a view of career, and of intellectual work, modelled on both male traits and life trajectories (Keller 1985; Izraely and Adler 1994). Even though the establishment of neo-liberal models often comes with a declaration of adherence to the principles of diversity management and gender mainstreaming (Schunter-Kleemann and Plehwe 2006; Ferree and Zippel 2015), gender inequality is actually no less a typical feature of the new organisational models than it used to be of the old ones.

Although the rise of a management culture oriented towards meritocracy and accountability has been welcomed by some as an opportunity to overcome an academic system designed around a male-dominated community, others have emphasised how its organisational practices and processes are, *de facto*, strongly

gendered (Deem 1998; Currie, Harris and Thiele 2000), to the point where they have “restored the gender order that was beginning to be challenged by feminist academic work” (Morley 2018, p. 34). These implications appear particularly cogent for the researchers who are in the early stages of their scientific career, due to the greater pressure they are under to conform their professional life and projects to the bounds and expectations defined by the organisations.

In this section, the focus will be, above all, on organisational practices that are typical of contemporary higher education institutions, and on their gender implications. Paying attention to these practices allows us to shed some light on how gender is rooted and reproduced in daily organisational activities and on how it can contribute to the construction of specific organisational cultures (Poggio 2006) and shape an ideal image of the early career researcher.

Organisational changes and the ideal academic image

The affirmation of the neoliberal agenda in the scientific world has led to significant consequences on the processes and practices at work in academic and research organisations. The new trend has led to the adoption of managerial methods typical of the private and for-profit sector, with a growing emphasis on managerialism and entrepreneurship to the detriment of independence and collegiality of researchers. Universities and research centres are increasingly becoming ‘greedy institutions’: they require more and more undivided loyalty, high productivity and emotional engagement of their members. This has resulted in an increase in the pace of work, together with the establishment of an even more prevalent ‘long hours culture’ (Currie, Harris and Thiele 2012).

The setting of rigorous and binding standards for such activities considered to be priorities – such as high-ranking publications, assessment procedures and fundraising – has led to several changes in how time-management procedures are implemented within academic work and research (Ylijoki and Mäntylä 2003). The request for ever-growing involvement in academic work, both in terms of productivity and of accounting, consequently translates into work intensification and demands on time. This seemingly brings academic endeavours closer and closer to other types of ‘extreme work’ (Gascoigne, Parry and Buchanan 2015). Research activity becomes increasingly ‘boundaryless’, not defined by specific working hours, but rather by the necessity to finish the job, regardless of whether the job consists of writing an article, assessing student essays or designing project proposals. In order to underline the growing trend towards productivity, in the mid-1990s Parker and Jary (1995) coined the eloquent term “McUniversity”, which highlights the increasing pressure from higher education institutions on academics, who have to produce more and more quickly.

The trend is shifting, as observed by Benschop and Brouns, from a model of science viewed as *Agorà* – where the social dimension of scholarship plays the main role – to an *Olympic* model, built around the figure of the researcher as a “a young man in solitude high on top of the Olympus, distanced from all everyday practices” (Benschop and Brouns 2003, p. 207). It is no accident that

the discourse of ‘excellence’ is the predominant mantra of the New Public Management paradigm. Excellence is not only the crucial target in the competition between universities, but also the key category through which performances are measured in scientific organisations and staff are selected.

With the establishment of this new paradigm, the recruitment criteria that had been previously adopted in a more informal way by the academic and research community have now been translated and operationalised into measurable performance standards. These criteria have subsequently been used to define career paths and access research funding. The explicit goal is to reward excellence, stimulating competition and endorsing the outstanding scholars (*citius, altius, fortius*, as the old Latin Olympic motto). However, the transition from informal procedures to standards of excellence does not appear to have reduced the level of discretion and opacity of the recruitment processes. In fact, the concept of excellence presents a fuzzy and composite nature, as it is based on a plurality of dimensions ranging from scientific impact, to level of internationalisation, networking ability, originality and so forth (Addis 2010), whose combination usually is not clearly and transparently defined. Therefore, excellence can be conceptualised as a social construction, subject to different kinds of biases, related to power dynamics and homosocial practices (Morley 2003).

The organisational changes taking place within academic and research institutions inevitably contribute to reconfiguring the image of the “ideal worker” (Acker 1990), or better yet, of the “ideal academic” (Lund 2015). This impact is particularly meaningful for those who have chosen to embark on an academic career path. Indeed, early career researchers typically suffer from a greater pressure to conform to the dominant models, which have been set as the standards in the recruitment process, and which also occurs due to how uncertain and vulnerable their position is.

A first requirement from higher education institutions comes in the shape of a researcher who is completely focused on task and devoted to work, who prioritises academic achievements over all other aspects of life, and who is able to show “a single-mindedness and an unswerving commitment” (Bazeley *et al.* 1996, p. 27). At the same time, early career researchers are required to build a unidimensional and linear career path (European Commission 2012; Cech and Blair-Loy 2014). With selection procedures based on principles of excellence, the ability to obtain results in the shortest amount of time is highly valued. To be an outstanding researcher, it is therefore important to present a linear and focused career track, with no blank spaces. Interruptions, deviations and pauses are seen as problematic markers, and consequently are viewed as a penalty.

Moreover, increasing competition places greater demand on early career researchers, who are expected to be hyper-productive, in a context of constant antagonism based on the principle of the ‘survival of the fittest’ (Davies and Bansel 2005). In particular, they are required to focus on fundraising, taking part in calls for tender at different levels, in order to fund their own research activities, but mostly on publications, usually considered to be the primary element in relation to the definition of excellence (Weisshaar 2017). The well-known

expression ‘publish or perish’ effectively demonstrates the obsessive demand on academic staff to invest their own time and energy in publishing articles, which becomes a priority, despite the high teaching and administrative workload.

Further important requirements for the ‘ideal early career researcher’ are scientific networking and internationalisation (Baruch and Hall 2004; Leeman 2010). Contacts and collaborations in the scientific community, closeness to key scholars, and membership of editorial boards, on the one hand, and professional experiences abroad, participation in international scientific networks and committees, involvement in transnational projects, attraction of international funds, on the other, are criteria increasingly relevant in recruitment and evaluation procedures.

Other factors can contribute to defining the qualities of ‘ideal early career researchers’. However, they tend to be more influenced by different national frameworks, institutional settings and disciplinary cultures, as in the case of teaching (Matthews, Lodge and Bosanquet 2014). In some systems, teaching experience is included under the criteria related to rewards, while in others it is less recognised. Where it is less valued (and therefore more invisible and less remunerated), it is more likely associated with precarious conditions (Kantola 2008; May, Peetz and Strachan 2013).

Gendered consequences of neoliberal organisational practices

The organisational changes previously discussed, and the profile of researcher modelled by them are not gender neutral, but appear to have different implications for women and men. The passage from the paternalistic model to the management paradigm has led to a shift in perspective, although the hegemony of masculinity has not changed. There has been a shift from paternalistic masculinity to competitive masculinity, based this time on proving one’s competence and on the desire to stand out and well above the others (Kerfoot and Knights 1993).

The idea of science based on an ideal of heroic and complete devotion to science, as well as the assumed linearity of a scientific career path, are both gendered constructions. Some research has shown how female careers, especially at the beginning, are more fragmented (Todd and Bird 2000; Mason, Wolfinger and Goulden 2013), due to the intersections with other biographical trajectories and to different cultural expectations regarding women (Williams 2005). Viewing academic work as something all-encompassing and exclusive (Ward 2000; Ackers and Gill 2005) and a career as a linear path with no interruptions, has some inevitable consequences in terms of work–life balance (Ecklund, Lincoln and Tansey 2012). As long as an asymmetric division of labour in terms of gender in society still remains, the ethic of boundless work – increasingly present in organisations – does not in fact affect men and women in the same way: such a dynamic penalises women more than men or, in any case, it discourages changes oriented towards men participating more in their family life (Currie, Harris and Thiele 2000).

Adopting family-friendly policies and work–life balance programmes within organisations is often seen as the primary way to solve the problem. However,

such policies, which are often designed as measures and special accommodations only for women caregivers, are not the most effective solution; on the contrary, they run the risk of being counterproductive, contributing to the reproduction of that gendered structure which encourages the long hours culture (Kossek, Lewis and Hammer 2010). On one hand, this limits more flexible working practices as far as maternity-related issues are concerned, whilst on the other often marginalising those who take advantage of such programmes (Williams, Blair-Loy and Berdahl 2013).

Moreover, new lines or gender divisions of labour are rising within academic and research institutions as a consequence of the new dominant organisational frame. Indeed, as both evaluation and merit-based processes have shifted their focus progressively towards criteria such as productivity, performance and entrepreneurship, other important parts of the academic world, such as teaching, administrative activities and other time-consuming tasks have become more feminised, while receiving at the same time less recognition (Thornton 2014). Male and female academics do not find themselves in the same position when it comes to choosing which activities they should focus on: women are more frequently involved in what is termed as “academic housework” (Heijstra, Steinhorsdóttir and Einarsdóttir 2017). Several research studies have underlined how women are more commonly found in teaching roles and/or in support roles for colleagues and students. They are also more likely to take on a heavier administrative workload, while having less time to devote to research and publications (Lynch 2010; Misra, Lundquist and Templer 2012). This division of labour also includes the so-called role of “mothers of the department” (Kantola 2008), meant to create a warmer and more comfortable environment, which also includes organising social events. While these activities are undoubtedly important and crucial in guaranteeing smooth daily management and student well-being, they do however turn out to be marginal and not particularly recognised when it comes to career advancement.

Gender asymmetries in academic and research organisations are also exacerbated by the establishment of the excellence discourse. Although the concept of excellence is apparently neutral, and often referenced just to underline the neutrality of the recruitment and career process, the excellence framework, in particular the micro-practices which in fact implement it, supports and reproduces inequalities based on gender (Addis 2010; Van den Brink and Benschop 2012a), whilst also on ethnicity and class (Özbilgin 2009). In fact, the evaluation standards used to measure excellence apply differently to men and women. This is the case, for example, in how various methods are used to assess CVs and applications during the recruitment processes (Foschi 2006), in how letters of recommendations are formulated (Madera, Hebl and Martin 2009), and how gender inequality practices in recruitment and selection procedures render gender equality practices ineffective, thus undermining sustainable change (Van den Brink and Benschop 2012b). Several studies have underlined, for example, how the bounded transparency and the limited accountability used to measure excellence in academic recruitment processes and selection procedures often

tend to work against gender equality (Van den Brink, Benschop and Jansen 2010). The formal rules and protocols used to define recruitment procedures are often overshadowed by micro-politics and gender practices reproducing traditional gender models and expectations.

Even considering separately the different dimensions that contribute to defining the construct of excellence, we can highlight the presence of gender biases. This is the case, for example, of publications. There exists an extensive body of literature on the gender gap in scientific publications: it demonstrates that women publish less, participate less in collaborations leading to publications, and are less likely to be first (or last) author. Moreover, the articles with women in key author positions are less cited (Lariviere *et al.* 2013), and recent research shows that women are also underrepresented in the journals with the highest impact factor and receive fewer citations (Shen 2013). These disparities in turn give rise to gender asymmetries in the opportunities to get grants and to advance up the academic ladder.

As seen above, other crucial factors in defining excellence can be found in participation in formal and informal networks (Bagilhole and Goode 2001; Van den Brink and Benschop 2012a) and in the degree of internationalisation (Morano-Foadi 2005; Ackers 2008). The networking practices (informal relations and interactions) with the ‘gatekeepers’, that is, those academics in key positions, seem to be particularly relevant. It is through them that the academic élite can make it easier or harder for someone to obtain a top position from the recruitment process, and thus actively contributes to the definition of what is excellent and what is not. Van den Brink and Benschop (2014) have highlighted how gatekeepers, the majority of whom are men, tend to mobilise masculinities, often without being aware of it. It has also been noted how women tend to be excluded from information and informal channels more often than their male peers, and that they are often the victims of exclusion and isolation dynamics. This leads to them having more limited networks, which are less diversified and supportive compared with men’s (Etzkowitz, Kemelgor and Uzzi 2000).

The value of networking is in direct proportion to how international it is, especially with its involvement in English-speaking communities. International mobility is a necessary requirement for building a career within neoliberal higher education institutions (Morano-Foadi 2005). Once again, these standards put women at a disadvantage. Data shows in fact that they are less involved in international collaboration and in international publications, and are less likely to have access to funds able to support their mobility (Padilla-González *et al.* 2011; Vabø *et al.* 2014). Gendered practices persist in the system of evaluating, rewarding and valuing international collaborations that run the risk of turning into obstacles (or glass fences) mainly for women: having international experience is not a marker of excellence by itself if the network in question does not belong to that one circle defined as relevant by the gatekeepers (Zippel 2018). Moreover, women are less involved in the so-called ‘old-boys networks’, and considered less attractive in terms of prestige. Additionally, it is far more difficult to strike the right balance between international mobility and family

commitments. Last but not least, male partners are less inclined towards moving to another city or town to support their woman partner's career as a researcher (Rusconi and Solga 2007).

Finally, it is worth noticing how often gender still plays a role in how other activities are valued in defining the profile of an 'ideal early career researcher'. An example emerges from teaching, an activity – as mentioned above – that is valued differently in various national and institutional frameworks. It is possible to observe that where teaching is included under the rewarded criteria, men are more likely to teach. Such is the case in research conducted by Kantola (2008) among several PhD students in a Political Science department in Finland, where it was noticed that men are more encouraged to teach as soon as they complete their PhD. Thereby they develop a greater sense of belonging to their department and to the scientific community, thus obtaining more visibility and prestige. Moreover, this allows them to be more financially independent, which is important in order to continue their academic career and to be able to apply for research funding and other positions. The situation is different in Italy, where teaching in the early stages of one's career turns out to be less valued and remunerated, if not invisible. Such is the case in informal substitutions of tenured professors. The fact that these activities are considered less prestigious and sometimes even invisible leads to a different outcome. In this case, the field is not so male-dominated – in fact quite the contrary (Bozzon *et al.* 2017). The situation is similar in those contexts where teaching is associated with casual, part-time and fixed term positions (May, Peetz and Strachan 2013).

The dynamics described above demonstrate how the establishment of a neoliberal agenda has had a significant influence on the ways in which practices and organisational processes have been redefined. This has subsequently generated situations in which traditional gender inequalities, which have always been typical of the world of academia, have far from disappeared. On the contrary, they have only grown stronger. In the next section we will turn our attention to the consequences of macro and organisational changes on experiential and subjective level, highlighting again the presence of significant gender implications.

Gendered constructions of subjectivity in the neoliberal research system

The literature concerning identity construction and the subjectivity produced by neoliberal academia constitutes the third level of analysis. In fact, the growth of neoliberalism has not simply affected academic systems and the organisational cultures dominating contemporary universities. The effects of such neoliberal reforms of academic labour have been so pervasive that they have also spread to the identity construction process and, in addition, to transformations of subjectivity. The creation of a subject has become increasingly characterised by the modern individualisation process (Beck 1992), which on one hand has enabled the greater personalisation and enrichment of work, but on the other has also

produced phenomena of work intensification and self-exploitation (Gherardi and Murgia 2012). In the academic field, this ambivalence exposes subjects to the risk of, on the one hand, internalising the strongly gendered, racialised and classed ideology of merit and excellence without giving it any critical thought. On the other hand, there is also the risk of living with a feeling of guilt and failure when one is unable to meet the standards set by the evaluation system (Gill 2009).

The theoretical perspective focused on subjectivity consequently aims to shift the attention to the creation of subjects that neoliberalism would like to produce, namely academics who adhere to entrepreneurial standards and competition-based logics and who are willing to accept relatively low wages. Such subjects generally show a reserved attitude towards conflict and are willing to have their academic performance and loyalty tested by a set of technological devices. In terms of empirical research, attention is paid to how the identity construction process is changing and to the experiences of academic workers subsumed within such a system (Davies and Petersen 2005; Archer 2008).

As previously discussed, the research system has not been left untouched by the introduction of logics based on new managerialism and New Public Management, and of governance models based on the belief that running the research world like a business can improve quality and efficiency, whatever this means (Willmott 1995; Shore and Wright 2000). The interiorisation of these logics, together with the rhetoric of the ‘passionate researcher’ – which have long been the rule in contemporary academia – has its effects: working practices which are in fact the result of structural, cultural and gender constraints appear as individual choices when they are actually not (Gascoigne, Parry and Buchanan 2015). This is how women themselves, especially in those fields of studies where they are most underrepresented, sometimes end up embracing an aggressive and competitive academic culture, where men and women both conform to the dominant gender model and to the hegemonic masculine discourse (Goode and Bagilhole 1998). And it is according to this type of culture that personal identity is constructed in higher education institutions, shaped as it is by the available discourse within occupational and organisational contexts. Du Gay (1996), who was among the first to discuss the rise of the “enterprise culture” that has permeated contemporary society, defined the introduction of the New Public Management as an “identity project”, therefore exposing how deeply the transformations of the governance model have affected the status and self-identity of the academic profession (Thomas and Davies 2002).

Several studies have focused on how academic subjectivities are created, governed, embodied and performed in contemporary academia (Parker and Jary 1995; Barry, Chandler and Clark 2001; Thomas and Davies 2002; Clarke and Knights 2015). More recently, however, a more specific debate on the experiences of early career researchers has developed (Archer 2008; Laudel and Gläser 2008; Bristow, Robinson and Ratle 2017) and in particular on the emotional and affective demands and contradictions that non-tenured researchers face (Norkus, Besio and Baur 2016; Thorkelson 2016; Morgan and Wood 2017). In addition,

attention has been paid to how such a precarious situation exacerbates gender differences among researchers (Nikunen 2012; Bozzon, Murgia and Villa 2017; Thwaites and Pressland 2017).

Experiencing precariousness

Uncertainty, insecurity and stress are currently a transversal experience in the academic and research world (Knights and Clarke 2014; Clarke and Knights 2015). However, one cannot compare the pressure experienced by a person holding a permanent position with that felt by someone with an employment contract for only a few months and with no future prospects. Furthermore, one of the reasons which has led to deteriorating wages and working conditions of non-tenured researchers is related to the complicity between tenured staff, university managers and the reforms implemented on a global scale over the last decades (Gill 2009; Morgan and Wood 2017). To quote Rosalind Gill (2010, p. 232):

Precariousness is one of the defining experiences of contemporary academic life in particular, but not exclusively for younger or ‘career early’ staff (a designation that can now extend for one’s entire ‘career’, given the few opportunities for development or secure employment).

As previously described at the beginning of this chapter, the research sector has also been affected by austerity policies and the reduction of stable positions. Indeed, over the decades, such policies have led to a rapid increase in the number of researchers with temporary contracts, among whom are also PhD students, research assistants, postdoctoral researchers and adjunct lecturers (Ylijoki 2010; Gallas 2018). While there are still some relevant differences between countries and disciplinary sectors, the chance of obtaining a tenured position in a university, and in the world of research in general, has been dramatically reduced – something PhD students commencing their programmes likely already know.

In a system with so few resources, what is it then that motivates those who have obtained a PhD to try their chances in finding a career in the world of academia? And what are the subjective features which are typical of the precarious researchers’ experience? To analyse how subjectivities of precarious researchers are constructed in the neoliberal research system means to consider the process of making people precarious as a mode of subjectivation. In this perspective, after having discussed how precarity is particularly evident in temporary, discontinuous, and uncertain employment settings, in this section attention is not only paid to ‘employment precarity’, but to the broader experience of ‘precariousness’, a term which better describes an experiential state that permeates the entire lives of individuals (Armano and Murgia 2013). Precariousness has once again become a significant dimension of the individual’s experience, but its phenomenology has changed and now presents some unique features that require new interpretative approaches. In particular, the precarisation processes witnessed over the past few years do not interact neutrally with regard to gender.

On the contrary, they in turn reproduce old gender asymmetries and generate new ones. As described in the previous sections, this becomes particularly evident if one considers precariousness in academia, where the establishment of fragmented and discontinuous working models, all with the lack of an appropriate social protection, seems to have different consequences, or better yet, consequences which differ in a critical way for men and women. Such consequences do not simply affect the professional world, but rather a variety of different social environments, which range from personal and family choices and relationships to geographic mobility and eventually to the scientific legitimation of one's work within one's own research network.

Moving attention to the formation of subjectivity, the experience of precariousness in the research sector is comparable in many respects to that of knowledge and creative workers (Gill 2009). Indeed, not only does a person with an unstable job need to be able to manage that particular temporary position, but also needs to be continuously on the lookout for the next one, all on their own. The dynamics at play are such that early career researchers find themselves entangled in ambiguous processes, which on one hand offer great satisfaction, while on the other expose them to constant risk. Their individual performance needs to be valued and appreciated, their identity lies very strongly in their activity as researchers and their hope in future rewards for their past efforts. Precarious academic subjectivities are then shaped in a setting made up of ambivalent dynamics. That is to say, being able to enjoy great flexibility while having to act from an entrepreneurial perspective, doing a job which is in some ways represented as some sort of a calling, but which in other ways traps them in an invisible web of subordination. Last but not least, there is the promise of future employment used as emotional blackmail, for which one is even willing to accept invisible and unpaid assignments.

Between success and failure

In the neoliberal university, subjectivity is constructed on the basis of a number of expectations that emerge from multiple sides: the scientific community, the organisation one is working for, and one's colleagues. The establishment of the so-called "culture of managerialism" (Deem 2009) has led higher education institutions to introduce a series of performance indicators and standards that set the bar for researchers (Parker and Jary 1995; Barry, Berg and Chandler 2006), together with a number of technologies aimed at measuring every aspect of academic activity, from publications to teaching, from citations to fundraising, from participation in editorial boards to public engagement.

The evaluation systems claim therefore to be neutral in applying the same standards to everyone, merely because they are based on measurable data, as if everyone were in the same situation and had the same opportunities. The result is that subjects are classified in a 'productivity ranking', which places them in academic hierarchies (Coin 2017) often based on logics that are not always transparent, especially for those at the bottom of the ladder.

In response to the dominance of these academic rankings, researchers are trying to conform to such evaluation criteria and to reach good performance levels, together with non-tenured ones, who are under even greater pressure. Some of them do it out of ambition, to stand out and to be seen as ‘successful researchers’, thus uncritically embracing the dynamic of peer competition. Others do it, not because they share its principles, but simply trying not to be expelled from the system or out of fear of being downgraded, of having their research time taken away from them or because they are afraid that their contract may not be renewed.

Even though early career researchers occupy a variety of nuanced and multiple positions in relation to the current academic evaluation systems, such researchers struggle to call these systems into question, in particular because of how vulnerable they are. Not all researchers belong to that one group of subjects who ‘show off how hard they work’, up to the point where they almost boast about how they spend their weekends sitting at the computer and about how they always carry their laptop with them, even on holiday. There are also those who try to escape the ‘Busy Olympics’, who will answer their e-mails politely, regardless of the sender, who will have a coffee with their colleagues simply to exchange a few thoughts, who will dedicate the appropriate time to their students, trying to support them in their journey, and who will write articles which may not end up in the top journals, but maybe in some small independent ones. However, the price for avoiding the competitive model and for embracing a different, more cooperative research culture is often high, and it is a price that must be paid individually. For those early career researchers trying to create for themselves an academic career, the attempt to simultaneously reject this evaluation system often leads to them experiencing a ‘self-multiplication’. On one side there is the project proposal, the top journal article and the lessons planned with colourful slides full of pictures, whilst on the other the reading group, the feedback sent to colleagues, and the participation in non-academic public events. In other words, the cooperative approach is indeed able to survive in the world of neoliberal academia, but this does not mean that it actually manages to call into question the current ideal of excellence, which – as various researchers have illustrated (Özbilgin 2009; Van den Brink and Benschop 2012) – reproduces the hegemonic structures of inequality based on gender, race, and class.

Within the academic context, it is especially those in more marginal positions who experience a number of difficulties attaining the required ‘quality standards’. This makes it even more difficult to challenge the criteria of such an evaluation system, especially because it is the subjects themselves who come to question their own scientific capabilities, because they are afraid of not ‘being’ successful researchers and of putting their own reputation on the line. This is the mechanism that Rosalind Gill (2010) described as “toxic shame”: everyone knows that getting their article published largely depends on the reviewers who will read it, and that grants usually have such low acceptance rates that obtaining one can often be compared to winning the lottery. And yet, those with no funded application or whose paper has not been accepted for publication are not simply

putting their very own reputation on the line, but also run the risk of being isolated by their colleagues, which is why they rarely share the bad news – such as the rejection of an article or the lack of funding for a project – out of fear of ruining their image as ‘successful researchers’.

As in the case of excellence, the feeling of inadequacy and internalised guilt appears to be deeply gender related. As a matter of fact, the perception of failure after seeing an article rejected or finding out they have not obtained a certain grant is not the same for every subject. In the world of academia, upper-class, male, heterosexual and white researchers from highly ranked universities are less exposed to internalising the rhetoric of failure. The feeling of inadequacy often comes from those who do not belong to the main academic networks, in particular women, migrants and people with a temporary or part-time position.

Between passion and overwork

A number of scholars have discussed how ‘passion’, especially in creative and knowledge work, has become a dispositive of self-exploitation and neoliberal government (Armano and Murgia 2013; Busso and Rivetti 2014). Also in the academic world, more and more often workers are asked to become the job they do and to be able to put on the line their creative and interpersonal competences. As a consequence, the evaluation focus will not only be on specific skills and abilities, but will go even deeper, namely in examining their subjectivities and lives in general. As Gramsci has already suggested (1971), within this framework one can view work as a somewhat impossible contradiction: on one hand, work encompasses a person’s human side, but on the other the very same person can only find their own fulfilment – both as a social and as a political animal – only once they are free from that very same work which makes them human.

In order to understand how researchers’ subjectivity is shaped, one therefore needs to fully grasp the structural ambivalence of this type of work, which does not allow for any form of detachment from the researchers’ own product, thus capturing their efforts that occur beyond their employment workload and formal requirements (Fleming 2012), which is why it is so hard to escape the above-mentioned logic of self-exploitation. In this sense, passion is presented as an experience loaded with tension and inner conflicts. After all, as Gherardi, Nicolini and Strati remind us (2007, p. 320):

The term ‘passion’ does not denote some univocal and easily definable phenomenon. Rather, it is a polysemous term, able in certain respects, to comprise meanings that may even be contradictory: for instance the simultaneous feeling of pleasure and pain.

The experience of early career researchers serves as a typical case of when love for one’s own work, involvement and emotional investment becomes deeply intertwined and ensnared with the bounds of an imposed and excessively heavy workload. This mechanism is described as the springing of the “trap of passion”

(Armano and Murgia 2013): such a trap means that the academic system does not need to impose exclusive and unconditional loyalty to their researchers, because it is the subjects themselves who offer such loyalty spontaneously. And it is exactly this spontaneity which makes this type of subjectivation so particularly insidious and hard to see (Davies and Petersen 2005).

There are many different reasons why a non-tenured researcher may identify with their work and be so strongly invested in academia, even though they know that they have so very few chances to obtain a tenured position. Moreover, different reasons can be found on the same subject (Busso and Rivetti 2014). One of the first types of passion can be described as the act of doing research: investigating, making new discoveries, spending time in a laboratory, doing fieldwork or working in an archive of ancient texts. A second reason refers to the social dimension of research and how this can play a role in the improvement of society, such as finding a cure for a previously incurable disease or planning policies that will improve citizens' living standards. The last type of passion is usually described as 'interpersonal and organisational': in this case the researcher reports to the department they work in, to their research group or to their mentor, typically their own supervisor. Granovetter had to admit, back in the early 1980s, that academia was an exception to his strength of weak ties theory, specifically because of the particular relationship between a mentor and their student. According to him, academic bounds were so strongly relied upon due to "a situation of considerable insecurity for new PhDs who have few useful contacts in their discipline as yet and typically rely on mentors and dissertation advisers who know them and their work well" (Granovetter 1983, p. 211).

The reasons that lie behind passion for one's own work may differ and overlap to various degrees, but – regardless of the object of such passions or of the type of discourse supporting the choice of an academic career – what makes this involvement so ambivalent has to do with the thin line between professional activity and pleasure, between freedom and work. Working times have been growing exceedingly longer, and this phenomenon shows a peculiar relationship with the precarisation of the researchers' paths. This is not however something experienced only by those with a temporary job and a contract with an all-too close deadline. Several studies illustrate how people in the academic world carry out unpaid overtime, and work in the evenings and at the weekends in order to meet the imposed standards. Yet, the reason they do so may also be (and maybe that is indeed the main reason) because they consider their work to be a 'labour of love' (Gill 2009; Clarke, Knights and Jarvis 2012).

This type of activity stretches into and pervades everything. On one hand, work is a source of satisfaction and identity development, but on the other it leads to endless toil (sometimes with no pay at all). It is a two-sided coin, which seems to be an intrinsic feature of the academic world. However, different subjects report different experiences. The overlap between life and work shrinks the spaces outside the academic activities, whether they are linked to leisure, recreational, political activities or to the construction of a family. For those with caretaking duties, this translates into yet another disadvantage (Santos and

Cabral-Cardoso 2008; Bozzon *et al.* 2017; Ivancheva and Keating, forthcoming). Those who instead do not have children and would like to have them, or those who would like to engage in other activities outside of work, experience this situation with a sense of sacrifice and of unfulfilled desires. Quite frequently, a total commitment to research means forsaking the idea of a family and accepting that one will have to commute long distances and live apart from their partner and friends (Gill 2009). Considering the strongly gendered division of labour which still persists in contemporary societies, as well as the gendered expectations of the university towards male and female researchers, it becomes evident that the so-called ‘long hours culture’ (Currie, Harris and Thiele 2000) ends up putting women at a strong disadvantage, in particular when one compares their situation to the one experienced by their male colleagues, especially those in a heterosexual relationship, and this becomes all the more evident when it comes to planning a family.

Between promises about the future and invisible work

The time and emotional investment made by the researchers is not simply tied to their ‘passions’, as described in the previous section, but also to their belief (or hope) that voluntary submission to the continuous requests coming from the academic system or sometimes from their supervisor or senior colleagues may eventually bring in exchange certain advantages, both in terms of contracts and of profession. Such a dynamic has been defined as the ‘promise dispositive’ (Bascetta 2015), which attacks non-tenured researchers on multiple fronts in the world of the university. This dynamic includes several practices, obligations and matters of ethics, which all come together in a process of subjectivation and self-regulation of the individuals. In fact, as Coin (2017, p. 713) points out: “rather than a real plan for the future, such promise feels as a soul-sourcing device, a hook meant to capture desire and transform it into a lever for exploitation”. These types of relationships are therefore not simply based on blackmail and on the reproduction of the academic hierarchy, but also extend far deeper, manipulating subjectivity.

The mechanism leading to excessive work hours and carrying out a series of invisible activities, all the while hoping that what is not acknowledged today may be tomorrow, can partially overlap with the concept of “cruel optimism” described by Lauren Berlant (2011). She was questioning the relationships that begin when the object of one’s desire becomes an obstacle for one’s own growth and fulfilment. Subjects indeed tend to remain attached to long-gone fantasies and promises of equality, social mobility, and job security, even though the liberal-capitalist societies have given ample proof that they cannot guarantee anything of the sort. Moreover, the unpaid work that forms the base of the ‘economics of promises’ does not simply fuel the fire of hope for future occasions; it also provides an identity remedy to a condition of constant precariousness.

Due to its complexity, the mechanism of promises cannot be considered a simple part of a learning process, where one is ‘learning the ropes’, because the

goal here is not to prepare the new-comers for stable and paid jobs, but to replace such jobs with precarious and unpaid ones. And for those few who continue on their academic path, contrary to what the rhetoric of meritocracy would presume, what matters is not only the quality of their work, but also their ability to stay in the system as long as possible. This is how early career researchers can end up doing someone else's job – be it supervising students, reviewing papers, writing projects – because others, especially those in a position of power in the academic hierarchy, claim that they can open the door to future professional opportunities. The 'promise dispositive' then pushes the subject to invest in work based on networking, a sort of investment in the future that can bring to work not just extremely long hours, but does so while remaining invisible. One accepts to work for free while investing in the interpersonal aspect of the employer–employee relationship (in this case, professor–pupil), which is to say that they are working to build a long-term relationship based on (supposedly) mutual trust.

If on one hand, unpaid work seems to be a common experience among all non-tenured researchers, whether one's work is visible or not seems to be a strongly gendered issue. Aside from that presented in this volume, there is other research on this matter, which shows how women are usually given tasks that are typically less recognised and less useful in terms of future employment (Heijstra, Steinthorsdóttir and Einarsdóttir 2017). In terms of disciplinary sectors, this occurs especially in the SSH field: as the amount of resources available is lower, the subjects appear to feel more under pressure, which is the reason why they end up accepting ever more invisible tasks (Honan and Teferra 2001). The relatively better position of early career researchers in the STEM field is also due to a set of factors which range from a higher number of investments and a more team-based approach to research, to higher wages and more trust in one's future perspectives, since the people active in this field are more likely than their SSH colleagues to find a position that meets their qualification even outside of academia (Nikunen 2012).

Thus, this promise dispositive exploits the desires and passions of the subjects, and in so doing uses them as the main leverage to make them accept – or, as is more often the case, to outright impose – an increasingly heavier unpaid workload, which is also often not recognised (especially for female non-tenured researchers and those active in the SSH fields). And all of this in return for the mere hope of the chance of building a future career in the world of academia or research. Furthermore, there is also another process, by which workers are becoming increasingly invisible, and which is happening via technological devices, especially through the auditing procedures and software programs used for monitoring the academic workload. These systems, which are active not only among early career researchers, but on all levels, go on to make academics systematically and deliberately working hours invisible, and hence operate as a "silencing mechanism" in higher education institutions (Gill 2009). All academics know that when they fill in timesheets or other documents related to their workload, they cannot declare more than eight hours a day, and cannot include non-working days. Translated into facts, this means that they have to hide a large

amount of their work, putting on paper a huge number of activities, all completed at times that are technically impossible. The act of writing this book itself probably equals no more than a few days' work, once it has been translated into data to fill in a timesheet for the European Commission or for our university.

Understanding the mechanics of such subjectivation dispositives described above, the challenge therefore lies not only in how to better understand how neoliberal academia produces identity construction and subjectivity, but above all in understanding how the subjects can break free from the dispositives of precarisation that ensnare their subjectivity, the very same dispositives neoliberal academia is based on.

Conclusions

The academic and research system, as it has been shaped by those transformations previously described in this chapter, presents some critical traits that require careful observation. The globalisation, marketisation and neoliberalisation processes in the higher education sector have mainly exacerbated the working experiences and conditions of the new generation of researchers, thus creating professional mismatches, whilst causing broken dreams and aspirations. Those early career researchers approaching the world of research today are, in fact, exposed to production standards and competition levels that are relentlessly increasing, with ever fewer chances of securing a stable career, or even career advancement. They have to meet the standards of a working environment that is becoming ever more frantic and demanding. Additionally, they are confronted with models of identity, along with dispositives of subjectivation – both within a precarious framework. These phenomena are not gender-neutral, but tend to put women at a consistent disadvantage. Indeed, women face greater risk of being trapped in precarious conditions, in less prestigious and visible positions, where identity requests seem more contradictory and unfavourable.

The growing recognition of STEM disciplines, in particular those valued in terms of profitability (e.g. software developers, engineers, data scientists) represent another piece of this picture. On one hand, in fact, such recognition contributes to more requests for productivity, performativity and entrepreneurship in the scientific world, but on the other – together with the gradual devaluation of the SSH field – it reveals evident gendered implications, due to the consistent lack of balance in how men and women are represented in different disciplinary sectors.

When reflecting on these processes, it seems useful first of all to underline the opportunity and the importance of resorting to a comparative approach, which enables us to highlight both shared aspects and diverging ones across different institutions and countries. Furthermore, such an approach would allow us to point out how the same trends can sometimes be the result of different dynamics. The opportunity offered by the GARCIA project to analyse the experience of universities and research centres in different countries has been particularly pivotal from this point of view.

In this chapter the connections between gender inequalities and precarisation processes within neoliberal academia have been analysed through three different levels. First of all, there are institutional forces at play, such as specific gender regimes which shape how early career researchers embrace gender models and the inequalities which are implicit in the neoliberal economic regimes. The organisational perspective, instead, highlights the gendered nature of practices played out in departments, faculties and schools, both in terms of gaining access to academic professions and in terms of expectations from higher education institutions towards early career researchers. Such researchers are required to follow an uninterrupted career history, endure long working hours, demonstrate high-performance work practices, and participate in international networks acknowledged by the organisation in which they are employed. Finally, at the subjective level, three ambivalences have been identified: the need to play by the rules in order not to be excluded by the academic system, while trying at the same time to avoid entrepreneurial logics which are implied within the same system; the fact that they are exposed to self-exploitation dynamics that are strictly intertwined with passion and emotional investment in one's own work; and the need for them to be ready to work in ways that are sometimes invisible and not recognised, because they hope to be able to create for themselves a future academic career. Resorting to a multi-level approach has allowed us to highlight the negative consequences that institutional, organisational and subjective dynamics have both on gender inequalities and on precarisation processes.

This analysis of the gendered nature of academic careers within neoliberal society, together with the implications for early career researchers, allow us the opportunity to offer recommendations for rethinking current policies at different levels. It is in fact necessary to act on a macro level, by introducing and implementing reforms that can reverse the current trend of marketisation and casualisation, and on an organisational level, through new policies and initiatives that can rethink organisational culture, whilst countering the current emphasis on hyper-productivity and complete availability required of its subjects (Poggio 2018). However, in addition to cooperating with management and policy makers in order to design and implement gender equality policies and measures to support early career researchers, we need to speculate as to which practices can be implemented in our everyday working lives. In other words, as Prichard and Benschop (2018, p. 101) eloquently said, we need to ask “why, rather than wait for others to take action and for the university to harvest its theoretical fruits, why the university doesn't leap from its observational balcony and take action itself”.

Even though fighting current trends in higher education can appear hard, especially when we consider the scenarios and structures described above, we can also claim that hegemonic systems – including the academic one – are not simply the result of coercive relations of domination (Gramsci 1971). On one hand, this means that its dominance is supported (in different ways and to different degrees) by the academics who are part of it, but on the other hand it also means that there

is the possibility for criticism and practice, and forms of resistance can be produced, even though they may be partial and fragmented (Mumby 1997). There are in fact a growing number of initiatives and contributions to this debate, which invite us to consider the issues of resistance in universities and which push for the rise of a new kind of academic activism, one which can challenge and subvert the principles that neoliberal academia is based on (Kalfa, Wilkinson and Gollan 2017; Contu 2018; Rhodes, Wright and Pullen 2018).

By questioning neoliberalism in academia, we argue that countering the growing precarisation of work and life, as well as the persistent existence of gender inequalities, is a priority for feminist scholars. The responsibility for dismantling these phenomena (instead of reproducing them more or less consciously) lies in the hands of the next generation of researchers, but also in the hands of those who are already active in academia and enjoy a relatively stable position. This kind of responsibility lies at the core of rethinking dominant cultures and daily practices in university, for example by demonstrating once again an appreciation for the different dimensions of academic work, favouring cooperation instead of competition and evaluating research in terms of its contribution to the public good, rather than its profitability. The issue is not simply about deconstructing and unmasking the contradictions and paradoxes present in the dominant models, but also about actively engaging in building new forms of solidarity and resistance that can support early career researchers, and that are able to question the masculine model of the ideal academic.

Note

1 This chapter is an entirely collaborative effort by the three authors, whose names appear in alphabetical order. If, however, for academic reasons individual responsibility is to be assigned, Rossella Bozzon wrote section 1, Barbara Poggio section 2, and Annalisa Murgia section 3 and the Conclusions. The introduction has been written jointly.

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