

# The Academic, The Entrepreneur, The Female in a Dress: A Micro-Level Study

## Abstract

### Purpose

The purpose of this paper is to explore how female academic entrepreneurs navigate and negotiate their changing role identities. In particular, the study is interested in the coping strategies - the identity work - undertaken by female academic entrepreneurs at the micro-level as they navigate and negotiate their changing role identities and ensuing role conflict within the university environment.

### Design/Methodology/Approach

A qualitative feminist methodology is adopted coupled with a narrative approach to uncover and address the nuanced ways in which gender roles and biases may impact the experiences and choices of 15 female academic entrepreneurs.

### Findings

The empirical evidence reveals that female academics have to undertake a specific type of identity work in order to be deemed legitimate and credible as academic entrepreneurs. Ironically in seeking to address gender-based disparity and increase female representation across a variety of platforms, the findings reveal that institutional support mechanisms designed to reduce gender disparity are placing greater pressure on female academic entrepreneurs requiring them to undertake additional roles and duties not expected of their male counterparts.

### Originality

This study provides a nuanced understanding of the lived experiences of female academic entrepreneurs at the micro-level. In particular, the findings show how efforts aimed at mitigating gender disparities often had unintended consequences on their identity as female academic entrepreneurs. This study thus advances identity work literature by highlighting the particular forms of role identity work that female academic entrepreneurs needed to engage in to fit in and build legitimacy such as belonging, overcoming, visibility and invisibility.

**Keywords:** Academic entrepreneurs; Gender; Identity work; Role conflict; Identity

## 1. Introduction

The mission of universities globally has expanded beyond teaching and research to encompass what is termed as the third mission, which includes a broader range of activities, most notably of which is academic entrepreneurship<sup>1</sup> (Compagnucci and Spigarelli, 2020; Stolze and Sailer, 2021; Galati *et al.*, 2020; Gaspar Pacheco *et al.*, 2024). This mission expansion has meant changes in the nature of academic work, university structures and culture (Sánchez-Barrionuevo and Benneworth, 2019; Vorley and Nelles, 2009; Brennan and McGowan, 2006). At the micro-level, these changes have created new career tensions and barriers for individual academics as they pursue academic entrepreneurship (Benneworth *et al.*, 2015; O’Kane *et al.*, 2022). In particular, a lack of role models, entrepreneurial culture and career progression have been identified as some of the barriers that academics experience in this pursuit (Phipps *et al.*, 2011), along with managing tensions, including for example, developing and managing

---

<sup>1</sup> There are various narrower and broader interpretations of academic entrepreneurship (Davey *et al.*, 2016; Guindalini *et al.*, 2021). A predominant focus has centred on research commercialisation involving the creation of a spin-off venture (Siegel and Wright, 2015; Hayter *et al.*, 2018).

stakeholder relationships and dealing with complex governance arrangements (Laukkaenen, 2003; Sciarelli *et al.*, 2021; Cunningham *et al.*, 2019). At the micro-level, this has led to changes in the academic entrepreneur's behaviours, routines, practices and attitudes (Wadhvani *et al.*, 2017; Walter *et al.*, 2016; Wang *et al.*, 2023).

Against this background in the burgeoning research on academic entrepreneurship, there have been calls for more micro-level empirical approaches to understand the contextual and lived experiences of academics undertaking academic entrepreneurship (Baleven *et al.*, 2018; Siegel and Wright, 2015; Cunningham and Menter, 2020). As Neves and Brito (2020) note there is a need at a micro-level to better understand how the institutional and organisational structures influence individual academic's intentions in pursuing academic entrepreneurship. Importantly, this also highlights a critical gap in existing research—the absence of a nuanced understanding of the role of gender in these dynamics. Indeed, there has been a paucity of research that has focused on female academic entrepreneurs despite several studies highlighting gender differences and their underrepresentation (Epstein *et al.*, 2022; Di Paola, 2021; Cunningham *et al.*, 2017; Treanor, 2022; Stirzaker and Sitko, 2018; Williams and Patterson, 2018). Therefore, an investigation into the intersection of gender, institutional frameworks, and individual aspirations is essential to elucidate the unique challenges and opportunities faced by female academic entrepreneurs in this evolving landscape.

Relatedly, despite studies exploring academic entrepreneurship and identity (Hayter *et al.*, 2021; Zou *et al.*, 2019), there has been little research attention paid to gender, female academic entrepreneurs and identity. Studies that have focused on identity have drawn on social theory (Guo *et al.*, 2021), self-discrepancy theory (Pattnaik *et al.*, 2023), theory of planned behaviour (Miranda *et al.*, 2017; Hamdani *et al.*, 2023) and focused on issues such as identity conflict (Shi *et al.*, 2021), contexts (Giunti and Duberley, 2023), entrepreneurial passion (Obschonka *et al.*, 2019) and gender inequalities (Karataş-Özkan and Chell, 2015). However, at the micro-level in pursuing academic entrepreneurship academics experience role identity challenges (O'Kane *et al.*, 2020) and have to be able to adapt and manage different identities in order to pursue academic entrepreneurship (Jain *et al.*, 2009). A micro-level understanding of how female academic entrepreneurs navigate and negotiate their changing role identities is therefore lacking. The paper addresses this unexplored question by drawing from social psychology literature with consideration of how identity-related research can facilitate a deeper understanding of the identity work undertaken by female academic entrepreneurs as well as the salience of these identities over time. To facilitate this, a qualitative feminist methodology has been adopted coupled with a narrative approach in order to uncover and address the nuanced ways in which gender roles and biases may impact the experiences and choices of 15 female academic entrepreneurs within the academic and entrepreneurial spheres.

This paper makes the following contributions: First, the study advances understanding of the lived experiences of female academic entrepreneurs at the micro-level. In particular, the authors demonstrate the ways in which institutional supports specifically tailored for academic entrepreneurship fail to fully recognise gender-specific challenges and in fact aggravate them. Second, building on this, the study shows how this worsens the disconnect between female academic entrepreneurs' identities and the roles they assume, aggravating the sense of identity violation experienced by female academic entrepreneurs. Intriguingly, these entrepreneurs noted the unintended consequences that these efforts (aimed at mitigating gender disparities) often had on their identity as female academic entrepreneurs. Finally, the identity work literature is advanced by highlighting the particular forms of role identity work that female academic entrepreneurs needed to engage in to fit in and build legitimacy such as belonging, overcoming, visibility and invisibility.

The paper is structured as follows: it begins by outlining the rationale for the theoretical framework employed followed by a discrete analysis of the key constructs – identity, gender

and identity work within academic entrepreneurship. The following section presents the methodological rationale and research design process; this is followed by a presentation of the findings. Finally, the authors discuss the contributions to theory and practice that coalesce at the intersection of identity work, gender, and academic entrepreneurship.

## **2. Literature Considerations**

### **2.1 Women's Entrepreneurship**

#### **2.2 Academic entrepreneurship and the intersecting role of gender**

There is a growing body of literature on academic entrepreneurship where it is viewed as one of the elements used by universities to realise their third mission (Rubens *et al.*, 2017; Nicotra *et al.* 2021). Academic entrepreneurship encompasses a wide range of activities (Miller *et al.*, 2018; Perkmann *et al.*, 2013). Within this paper, a broad definition is adopted (Wang *et al.* 2021; Abreu and Grinevich, 2013; Bercovitz and Fieldman, 2008), with academic entrepreneurship referring to activities which are involved in the commercialisation of research, which includes spin-off firm creation, engagement in licences and patents, contract research and consulting.

There has been extensive empirical attention devoted to exploring the factors that enable and constrain academic entrepreneurship (Gaspar Pacheco *et al.*, 2024). At the macro level, factors such as university-level institutional support mechanisms (Messina *et al.*, 2022), the role of the TTO (Rasmussen and Wright, 2015; Lee and Jung, 2021), the prevalence of funding and influence of external innovation ecosystems (Hayter *et al.*, 2018; Fischer *et al.*, 2019; Davey and Galan-Muros, 2020) have dominated studies along with human capital, stakeholder interests and how tensions are managed between scientific production and academic entrepreneurship through research (Cunningham *et al.*, 2014). In post-conflict environments, some of these macro level constraints are even more pronounced (Bilić *et al.*, 2021). Studies have also acknowledged the importance of micro-level factors such as the nature and quality of research (De Silva, 2016; Clarysse *et al.*, 2011), networks (Siegel and Wright, 2015; Fischer *et al.*, 2019), market knowledge (Hahn *et al.*, 2020; Messina *et al.*, 2022), commercial experience (Cunningham *et al.*, 2020), career stage (Bercovitz and Feldman, 2008) and age (Geuna and Nesta, 2006) as explanatory factors relating to academics' engagement in technology commercialization.

However, there is a paucity of studies that have taken a gendered perspective of academic entrepreneurship (Parker *et al.*, 2017; Halilem *et al.*, 2022; Carlson and Jennings, 2024). Studies taking a specific gender view have largely focused on certain barriers with respect to "work-family balance and ambition" (Modic *et al.*, 2022), specific experiences in patenting (Epstein *et al.*, 2022), academic institutions gender biases (Smith *et al.*, 2017) and networks (Rosa and Dawson, 2006). This is despite research acknowledging the influence of gender on engagement in academic entrepreneurship. For example, it has been illustrated that lower numbers of female academics engage in patenting (Whittington, 2011; Dohse *et al.*, 2019) and spin-off activities (Martin *et al.*, 2015; Kochenkova *et al.*, 2016). Furthermore, industry consulting activities are often dominated by male academics (Corley and Gaughan, 2005; Besley *et al.*, 2018). It is thus suggested that these differences are not the result of capability differences but are associated with perpetuating factors arising from socially constructed norms of entrepreneurship, which present enhanced barriers for females due to a lack of fit between their ascribed femininity and embedded masculinity of the broader entrepreneurship domain (Halilem *et al.*, 2022; Chasserio *et al.*, 2014; Callerstig *et al.*, 2024).

In the context of academia, there is evidence to support a gender imbalance (Treviño *et al.*, 2017). It is acknowledged that an academic's early years are critical in terms of ensuring

continuous research performance in order to accelerate career progression. However, these critical years often overlap with women's key childbearing years (Tartari and Salter, 2015) and have long-lasting impact on their career progression (Murray and Graham, 2007). Park (1996, p. 204) raises the challenge of "hegemonic masculine ideals that inform decisions about employee (faculty) pay and promotion" which can lead to females being disadvantaged, particularly if they have children or other caring responsibilities where they cannot prioritise academia and academic enterprise above their other responsibilities (Parker *et al.*, 2017). Furthermore, it has been found that more female academics are often pushed down traditional academic roles which involve higher teaching loads, service and administrative roles and pastoral care activities (Bird *et al.*, 2004; Park, 1996) which can limit their time to engage in entrepreneurship activities.

To fully comprehend the complexity of engaging in academic entrepreneurship from a gender perspective, there is a need to unpack the identity construction and negotiation processes that women go through as they reshape their careers and engage in entrepreneurship within a typically male-dominated discipline i.e. academia (Jain *et al.*, 2009; Makarova *et al.*, 2019; Jensen and Deemer, 2019). Identity has been suggested to be a dynamic construct which is strongly influenced by the context within which someone resides. Barrett and Vershinina (2017, p. 440) suggest that individuals construct and re-construct their identity based on "what is and is not available to them (i.e. capitals) and what is and is not possible or can be done in the context in which they operate (i.e. habitus)". In responding to calls for research to explore more fully how the academic entrepreneur identity emerges (Johnson *et al.*, 2017; O'Kane *et al.*, 2019; Urban and Chantson, 2019; Wang *et al.*, 2022), the authors suggest that identity work may help provide micro-level insights into how female academic entrepreneurs construct and navigate their identity, revealing the intricacies of how implicit behaviours, norms and biases may challenge females' sense of being and identity.

### **2.3. Identity construction and legitimacy within academic entrepreneurship**

Identity is defined as a description of oneself that provides answers to the question 'Who am I?' or 'Who are we?' (Balven *et al.*, 2018). More specifically it encompasses the "meanings that individuals attach reflexively to themselves, which are developed and sustained through processes of social interaction" (Brown, 2015, p. 23). Consideration of extant literature highlights the multi-dimensional and dynamic nature of identity (Ashforth *et al.*, 2008; Brown, 2015; Horton *et al.*, 2014; Caza *et al.*, 2018) which is also reflected in the complexity of the identity literature and theoretical underpinnings therein. In an attempt to bring clarity to an increasingly ambiguous concept, prior literature has sought to explore identity from various theoretical perspectives including social identity theory (Tajfel and Turner, 1979; Hu *et al.*, 2020; Fujita *et al.*, 2018; Hogg, 2001; Kanzola *et al.*, 2022), identity theory (Stryker and Serpe, 1982; Jain *et al.*, 2009; Järventie-Thesleff and Tienari, 2016; Greco and Kraimer, 2020; Davis *et al.*, 2019), critical theory (Brown and Lewis, 2011; Boussebaa and Brown, 2017; Vakil, 2018; Suity, 2019; Lee and Tapia, 2021) and narrative theory (Rostron, 2021; Ibarra and Barbulescu, 2010; Watson, 2009; McAdams, 2018; Bloom *et al.*, 2021; Blount-Hill, 2021; Cesaroni *et al.*, 2021). Across these theoretical perspectives, the target of one's identity work varies with social identity theory and critical theory focusing on the development of one's collective identities i.e., the degree to which they attach or distance themselves from a collective group (Caza *et al.*, 2018). Conversely, narrative theory is more concerned with the development of one's personal identity with an individual crafting their identity by "weaving together their reconstructed past, their experienced present, and their imagined future" (Bloom *et al.*, 2021, p. 302) into an integrated and evolving life story (Blount-Hill, 2021). Finally, in the case of identity theory, the roles one occupies in life are of central importance and the target for identity work. Put simply, how a person views themselves depends upon the roles they hold,

and the expectations associated with those roles (Stryker and Burke, 2000; Jain *et al.*, 2009; Caza *et al.*, 2018; Pepper, 2022).

### 2.3.1 Role identity theory

Originating within broader identity theory (Stryker and Serpe, 1982), role identity theory posits that an individual's identity and sense of self are a consequence of the structural role positions they possess (Marta *et al.*, 2014; Pepper, 2022). Jain *et al.* (2009) outlines that role identity is a "self-view or a meaning attributed to oneself in relation to a specific role" (Jain *et al.*, 2009, p. 293). Defined as social positions that an individual assumes, roles can be personal (such as a wife or a parent) as well as professional (such as an academic or an entrepreneur) and carry with them norms, obligations and behavioural expectations (Merton, 1957; Jain *et al.*, 2009; Pepper, 2022). With individuals undertaking a variety of roles in their lives, each of these role identities will provide meaning as well as mandate an individual's behaviour. For example, the parental role identity mandates that an individual ensures the physiological safety and development of their child (Stets and Serpe, 2016). Similarly, the role identity of a 'carer' encompasses the expectations of engaging in caregiving acts such as nurturing, helping and supporting those for whom they provide care (Hughes *et al.*, 2013). Professionally, an entrepreneurial role identity is associated with passion for one's venture with the business perceived as an extension of oneself (Karhunen *et al.*, 2017), while an academic role identity requires an individual to exhibit behaviours such as universalism and organized scepticism (Jain *et al.*, 2009).

As previously noted, an individual may assume multiple role identities simultaneously and these identities may reinforce or conflict with each other (Stryker and Burke, 2000; Hughes *et al.*, 2013). By way of demonstration, one's role as an employee may dictate behaviours of professional distance and hard work whereas the same individual, assuming a friendship role, may also display behaviours of tenderness and interconnectedness as they interact with work colleagues (Stets and Serpe, 2016). Similarly, the empirical evidence is replete with observations of role conflict in relation to employee and parental / carer-giving roles (Williams and Alliger, 1994; Lee *et al.*, 2017; Wolfinger *et al.*, 2008; Ma and Turel, 2019; MacEwen and Barling, 1988; Reimann *et al.*, 2022; Stets and Serpe, 2016; Mason *et al.*, 2013; Minello *et al.*, 2021; Ekinsmyth, 2013). Miller and Riley (2022)'s scholarly work on an academic context identifies the significant tensions experienced by academic mothers as they try to navigate and live up to the ideal norms associated with both their academic and mothering roles. Similarly, Wolfinger *et al.* (2004) illustrate the impact of such role conflict with empirical evidence highlighting a negative correlation between gender and family formation (marriage and children) and academic career success.

### 2.3.2 Identity Work

Individuals possess intricate identities shaped by core personalities expressed reflexively in diverse social contexts. These identities are dynamic projects evolving through dialogues between inner selves and external discourses within the social domain (Kenny, 2010; Sveningsson and Alvesson, 2003). The continual production and reproduction of identities necessitates engagement in identity work, shaping credible subject positions within normative social contexts (Marlow and McAdam, 2015). This conceptualization sees identity work as a mutually constitutive process where individuals strive to shape a coherent self-identity and various social identities in relation to others (McAdam *et al.*, 2021; Watson, 2009) and as such rejects a static, decontextualized iteration of identity, emphasizing reflexive, socially situated performances (Ibarra and Barbulescu, 2010). The evaluation of one's identity and others are socially situated, influenced by a desire for affirmation as a legitimate subject (Butler, 2004; Ojediran *et al.*, 2022). A central aspect of identity work involves creating a sense of

belongingness, enhancing self-confirmation (Hogg, 2006). However, this identity work is constrained by the options available within an institutionally bounded subject position (Ybema *et al.*, 2009). As reflexive actors, humans undertake dedicated identity work, developing and testing probable and possible selves to align with desired reference groups (Ibarra and Barbulescu, 2010). Analyses of contemporary identity work often revolve around the tension between the individual and the cultural norms within formal organizations (Ybema *et al.*, 2009).

Applying this analysis to academic entrepreneurship is challenging due to the agentic nature of the entrepreneurial process and the absence of normative institutionalized exemplars of academic entrepreneurship (Mars and Rios-Aguilar, 2010). Prior work has offered some insight into the complexities and challenges associated with undertaking an academic and an entrepreneurship role. With increasing pressure on academics to fulfil their “third mission” and translate their research into commercially viable outputs, some have pointed to the benefits of such endeavours in the form of improved access to research funding (D’Este and Patel, 2007), reputational gains amongst academic and industry communities (Göktepe-Hulten and Mahagaonkar 2010), and access to “in-kind resources” for research (D’Este and Perkmann, 2011, p. 330). Conversely, others have expressed concern about identifying unsettling identity misalignment (Meek and Woods, 2016; Giunti and Duberey, 2023). While such insights are of value, existing work fails to fully consider the impact of gender and the differences that male and female academics experience as they try to construct a hybrid role identity of the academic entrepreneur. Against this backdrop, there is ongoing evidence that entrepreneurship is still a gender-biased activity (Swail and Marlow, 2018; Henry *et al.*, 2016; McAdam, 2022). It could be therefore suggested that certain institutional practices (such as academia) which are male-dominated, instil arbitrary behaviours and actions which can unconsciously and overtly instil gender stereotypes resulting in women experiencing direct or indirect gender-based challenges (Parker *et al.*, 2017; Hamdani *et al.*, 2023). Indeed, research by Marlow and McAdam (2015) identify that women technology entrepreneurs often need to change their prescribed behaviours, actions, dress and identity in order to ‘fit’ into a predominantly masculine incubator.

An active situated analysis of identity work within differing entrepreneurial contexts is needed to understand how women enact possible and provisional selves (Ibarra, 1999). Within academia, female entrepreneurial academics are required to construct an entrepreneurial identity that they consider legitimate and is legitimized by others (Hytti *et al.*, 2017). Fitting in requires an iterative dialogue sensitive to prevailing norms, involving reflexive identity work for women to retain femininity while adopting aspects of masculinity for recognition as entrepreneurial actors (De Clercq and Voronov, 2009). Gaining legitimacy in particular entrepreneurial contexts requires interpreting and balancing masculinity and femininity to create provisional selves fitting specific environments (Ibarra and Barbulescu, 2010). Given the relational aspect of identity work (Watson, 2009) multiple stakeholders are involved in the construction of a female entrepreneur’s identity in the academic context. While existing literature extensively discusses the challenges of femininity in entrepreneurship (Ahl, 2006; Calás *et al.*, 2009; Duberley and Carrigan, 2013; MacNabb *et al.*, 1993), its specific translation into academic entrepreneurship is a less explored area. Given the masculinity inherent in the entrepreneurial discourse, this study posits that women face the imperative to navigate the dissonance between their inherently ascribed femininity and the prevailing masculinity embedded within academic entrepreneurship. Consequently, the authors contend that women academics must engage in specific forms of identity work to attain visibility and legitimacy as credible figures within academic entrepreneurship.

### **3. Methodology**

To address the ~~research~~research, question a qualitative feminist approach is employed (Henry *et al.*, 2016; Leavy and Harris, 2018) to uncover and address the nuanced ways in which gender roles and biases may impact the experiences of female academic entrepreneurs within the academic environment. Feminist methodology, as both a theoretical perspective and a social movement, aims to diminish and eliminate sexist inequality and oppression (Bell *et al.*, 2020). In deliberately seeking to give “voice” to women’s lived experiences (Hill *et al.*, 2006; McAdam *et al.*, 2019), the qualitative research design acknowledges the participants’ knowledge, views, understandings, interpretations, experiences, and interactions as meaningful elements of the researched reality (Gioia, 2021). A narrative approach was adopted for this research in order to explore the dynamics between the individual and their social context (Hytti, 2010). Narrative approaches are particularly beneficial when exploring research relating to careers, where they can be used to analyse how factors relate to the past and present and how subjectivity and objectivity may influence an individual’s lived experiences (Cohen *et al.*, 2004). Furthermore, a narrative approach can aid exploration of the process through which careers and identities are re-formed over time through considerations of time, place and experiences (Crowley-Henry and Weir, 2007). The authors argue that to fully understand female academics identity work, there is a need to understand the broader factors which influence their career and decisions regarding their engagement in particular activities such as entrepreneurship.

### 3.1 Data Collection

Due to traditional low levels of female academics engaging in entrepreneurial activities being lower than males (Abreu and Grinevich, 2017), this research explored the experiences of female academics across two universities within a particular region. Both universities located in the UK, had similar opportunities for research funding and expertise in their respective science, technology, engineering and mathematics (STEM) faculties. Furthermore, both institutions have academic enterprise and knowledge transfer as key performance indicators and routes for promotion for academic staff. A purposeful sample strategy was adopted where female academics within a STEM field were chosen based on the criteria of being involved in formal external research funding, consultancy or commercialisation activities (i.e. patents, licences, new venture creation). Disciplines which fall within the hard sciences, computing and engineering fields were chosen as this is typically where gender disparity is more pronounced (Cheryan *et al.*, 2017).

Utilising internal records from the respective universities research and enterprise departments, the authors sought to interview an even spread of academics at different career stages and ages across the two universities (see Table I). Our final sample of 15 female academics enabled a comprehensive analysis of interviewees' narratives, reaching the point of theoretical saturation where additional data collection and analysis yielded no new insights or emerging themes (Corbin and Strauss, 2008). The size and nature of our sample facilitates theoretical generalization rather than numerical generalization (Yin, 2008; Gioia, 2021), while informing our research aim of ascertaining a micro-level understanding of how female academic entrepreneurs navigate and negotiate their changing role identities. By analytically connecting the findings of the interviews to gender, the research aims to advance contemporary feminist theory as it pertains to academic entrepreneurship. In doing so, it addresses calls for entrepreneurial research grounded in a feminist theoretical framework (Ahl, 2006; Henry *et al.*, 2016).

The study participants were asked questions regarding their experiences of being a female within STEM, their experiences of being a female engaging in entrepreneurial activities within an academic context and finally gender challenges and enablers when engaging in entrepreneurial activities within the STEM discipline in their academic context. Interviews

took place in person and lasted an average of 58 minutes. They were digitally recorded, transcribed verbatim, resulting in an average of 17 single-spaced pages per interview, totalling 253 single-spaced pages of text. Observations were also noted during the interviews (Berkowitz, 1997).

[Insert Table I about here]

### 3.2 Data Analysis

An iterative and reflexive process of data analysis was followed whereby data was collected and interpreted through constant referral to the literature to aid theory development (Yin, 2011). The coding protocol served as a flexible guide, encouraging a deep exploration of the data rather than a rigid, formulaic approach (Gehman *et al.*, 2018). Subsequent data analysis unfolded in three main stages (Braun *et al.*, 2022). In the initial stage, the authors familiarized themselves with the data, conducting individual transcript analysis to identify broad themes using open coding. Focused on capturing key statements and forming first-order concepts reflecting the female academics' lived experiences to understand of how female academic entrepreneurs navigate and negotiate their changing role identities, the open coding stage was repeated multiple times to refine labels, group similar comments, and ensure accuracy. The second stage involved axial coding, where the authors grouped similar open codes into clusters, adjusting labels and abstracting them into theoretically informed categories (Terry *et al.*, 2017). Drawing from the literature on academic entrepreneurship (Miller *et al.*, 2018; Perkmann *et al.*, 2013), identity theory (Kenny, 2010; Sveningsson and Alvesson, 2003; Marlow and McAdam, 2015; Watson, 2009) and gender (Ahl, 2006; Swail and Marlow, 2018; Henry *et al.*, 2016; McAdam, 2022), as well as by work more broadly on women entrepreneurs (Kaciak and Welsh, 2020; Welsh *et al.*, 2021; Moore *et al.*, 1999), theory-based terms were crafted during this abstraction process. As such, we sought holistic fit between the empirical and theoretical elements of our study (Gehman *et al.*, 2018; Klag & Langlely, 2013; Kelly and McAdam 2023). In the final stage, the research team configured axial codes into aggregate dimensions, laying the groundwork for a larger theoretical narrative (Crosina and Pratt, 2019). Exemplars were selected to provide evidence for each theme, ensuring a holistic fit between empirical and theoretical elements (Gehman *et al.*, 2018; Klag and Langlely, 2013). The data coding summary is presented in Table II.

[Insert Table II about here]

## 4. Findings

The study findings are structured according to the six aggregate dimensions derived from the data analysis, namely: *the situated environment, visible differences, hidden/invisible differences, changing behaviours, perception of self, and perception of others*. Power quotes are used to illustrate these dimensions, and the experiences of the participants are provided as fragments of the narrative (Pratt, 2007). To simplify and make sense of the data, Table III also provides a summary of the key findings at the micro-level of female academics lived experiences.

### 4.1 The Situated Environment

In exploring how female academic entrepreneurs engage in identity work to navigate and negotiate their changing role identities it becomes apparent that the situated environment is of particular importance. Focusing on the institutions themselves and the frameworks and support mechanisms in place, all the participants identified institutional perceptions of academic enterprise as a factor influencing their identity work and the role identities assumed. For many

it would appear as though, while academic enterprise takes place, the institutions in question perceive such endeavours as valuable to the extent that they further research and grant applications. As Amy states, “we are encouraged to have industry contact in as much as it furthers our grant applications...they don’t really count towards your promotion”. Amy further explains how she was discouraged from academic enterprise activities stating that, from the university’s perspective “that colour of money is not as impressive as say a research council appointment”. As well as acknowledging a lack of institutional support in terms of undertaking the role of an academic entrepreneur (Amy; Carla; Francis; Maeve; Alexandra), some of the participants felt they were held back from flourishing in such roles as a result of the multitude of additional roles they were expected to undertake. With teaching, administration and research roles encroaching upon the time available to engage in enterprise activities, Carla expresses frustration and the feeling that “[the institution is] holding people back by making everybody mediocre”.

From the data, it is apparent that despite the changing nature of the academic landscape and the espoused third mission of the university (Compagnucci and Spigarelli, 2020; Stolze and Sailer, 2021), entrepreneurial activity is less supported than other elements of the academic’s role. With limited support and incentive to engage in enterprise, the academics in this study expressed frustration and disillusionment with their respective institutions and their perceptions of academic enterprise in general. With institutional emphasis placed on research grants, teaching and publications many of the female academic entrepreneurs felt their entrepreneurial roles to be supplementary or something they “did on the side” (Francis and Maeve).

In addition to the perceived lack of institutional support for academic enterprise, the participants also drew attention to the influence of gender and how being a female pursuing academic enterprise presented its own challenges within institutional and departmental contexts. For instance, despite a significant degree of commercial success, Carla notes that as a woman she must “fight to be taken seriously” as an academic entrepreneur and has faced several hurdles in securing the institutional support and resources required to further her endeavours. She describes this as “...if I was a different gender with the success that I’ve had with this company so far, there would be a road map of innovation for me. Right now, I can’t even get [resources] for my lab”. Furthermore having requested more laboratory space to cater for the increase in contracts secured, Carla recalls an interaction between herself and management: “I went to people and said I don’t have the space, I need space, these are a list of contracts coming in, [their reply was] right well, we know there’s a free lab, but we don’t want to upset the man that’s in charge of that lab for political reasons, so here’s a few rooms in the basement, we’ll give those to you.”

In many of the cases, the participants also had children and caring responsibilities (see Table II) and in exploring their roles as female academic entrepreneurs noted conflict between this and their familial roles. Whilst it was identified that many male academics now assume childcare responsibilities, it was underscored by those female academics with children that motherhood influenced their engagement in entrepreneurial activities and perceived legitimacy. For example, it was reported that male colleagues were often unsympathetic to the need to be flexible with meeting times. Dolores notes “There’s not that kind of consideration and you feel very embarrassed when you raise your hand and say, ‘Please, can we move the meeting to this time?’ They look at you like you always have problems, as if you were the cause of the problems”.

Furthermore, many of the female academics had to miss workshops, conferences or research collaboration opportunities which involve a lot of travelling, thus stifling their ability to be entrepreneurial. As Cara noted, “one of the big things is to have an international profile and that whole aspect of my career was put on hold. I wasn’t going to the States for three months and leaving my kids behind, it just wasn’t happening”. Similarly, as a mother, Dolores

states “I say no many times. You know that saying no is closing doors, but you have to make a balance”. Interestingly in the case of Carla and Grace both study participants were of professorial status and at the time of the interview did not have children. Reflecting on this, both identified that they would not have been able to perform at the level that they do, had they also undertaken parental roles.

As part of this theme and in line with the tensions outlined many participants reflected upon the influence of interventions such as the Athena Swan Charter. Established in 2005, the Charter was developed to help reduce gender disparity in higher education. With both institutions involved in the study members of the Charter, it was apparent that not all female academic entrepreneurs interviewed felt the benefit of this initiative. While some acknowledged positive differences such as role modelling and mentoring opportunities, others felt it had had a more negative impact on their identity as female academics and academic entrepreneurs and their perceived legitimacy within their respective fields. Specifically, at least two thirds recounted how the initiative has served to “colour people’s perceptions” of academics and the accomplishments they achieve. As Grace indicated: “I worry about the whole Athena SWAN activity. There is sometimes a feeling...that when you get access to particular opportunities...you are only getting that because [the department] needs to be shown to be positively promoting females and...that to me starts to promote a bad image of female academics in my discipline, that they will only get if they are given”. Despite being promoted as an institutional intervention designed to reduce gender disparity several of the participants have lost faith in schemes such as Athena Swan and question their efficacy in cultivating gender-based parity in academia and academic entrepreneurship. As Siobhan describes “I think Athena Swan has just become a glamour puss image for universities to swan around with their gold, their silver and their bronze [awards] and [state], we’re Swan friendly.”

#### 4.2 Visible Differences

Recounting their experiences in negotiating their roles as academic entrepreneurs many of the women interviewed discussed tangible differences, they experienced relative to their male counterparts, notably observations of inequitable behaviour or treatment and gender-based disparity. For instance, in several cases, the participants referred to the visible dominance of men in senior leadership roles. While some attributed such differences to the nature of their discipline and the general gender disparity present in STEM, others considered it a faculty-based responsibility. “It’s pretty bad when you get up there and you have to fight really hard to get leadership roles... The leader has a suit and tie on and shouts loudly. He who shouts loudest wins. That’s how it works.” (Carla). In some cases, the participants also remarked upon the more explicit and visible differences experienced in terms of the types of roles they were expected to undertake as part of their employment. For instance, some of the participants found themselves commonly being allocated pastoral (Cara) or role-modelling roles as Grace recalls, “[there is the] expectation that you will when required be called upon...do the whole role model female in engineering”.

Referring more explicitly to their role as an academic entrepreneur in the field of STEM, the majority of the participants viewed themselves as visible minorities, recounting several instances where they were the only female in the room. In recounting their experiences both benefits as well as limitations were cited to emanate from the occupation of their ascribed gender identity. The benefits listed included: exposure to key contacts, invitations to take part in notable events/boards (to aid with gender balance), being remembered and, upon fulfilment of necessary academic and technical benchmarks, being looked upon more favourably in the awarding of funds with many European projects now requiring a gender balance. As Grace notes: “I get invited to sit on a lot of review panels...and I know I get asked to do it because I

am female but the flip side of that is it opens up opportunities and I get exposure to people that I otherwise wouldn't...so pluses and minuses".

Conversely, as visible minorities a series of limitations were also identified including, as noted above, the expectation of becoming a role model (whether desired or not), increasing workload burdens and a reluctance/fear of making mistakes with one's visible minority status rendering them more recognisable and remembered among peers and colleagues: Siobhan notes this as: "I've been invited to a few things and I wonder sometimes are they just inviting me to tick the gender box...I'm the diversity, I'm a female" and Grace recalls: "...it comes back to the visibility side of things, you don't want to do something to look stupid because everyone is going to remember who you are...they will not remember the guy in the corner who looks like every other guy in the grey suit but they will bloody remember who you were."

### **4.3 Hidden and Invisible Differences**

The findings also identified the presence of a tacit and embedded masculine fraternity with many of the female academic entrepreneurs referring to some form of "old boy's network" that influenced their role identities and marginalized their legitimacy. Maeve who had been involved in a spin-out company reflected on her experiences identifying, "All through my career men meet after conferences in the bar and I have never done that. I just think that's a very difficult place for a woman to be taken seriously and yet, if you're not there then you miss out. Very often big collaborations, big grants are all agreed in a very chatty boy to boy way, and I can think of a couple of examples where I wasn't able to get involved in something because I just wasn't on that sort of "matey, matey level with the men"."

The data was replete with examples of female academics having their legitimacy or credibility more subtly questioned or undermined. For instance, Grace recalls how, when accompanied by a male colleague conversations can be directed towards them, potentially demonstrating preconceived ideas in relation to her identity as a female STEM academic entrepreneur, as she recalls, "[you] go into meetings and...particularly if you have a male academic staff member with you, you are aware that the conversation is being directed to them even if you are the more senior or possibly the more involved in that area". Similarly, after being invited to present her work to a leading government agency Amy arrived early to the meeting and was asked, "sweetheart, would you get me a coffee?" by one of the male attendees. These cases demonstrate the lived experiences of the participants as they try to traverse conscious and/or unconscious bias as they engage in their identity work and negotiate their roles as academic entrepreneurs.

As well as hidden differences in terms of assumed credibility and legitimacy, the participants also note the problems associated with invisible workloads that are increasingly levied upon the female academic. Seeking to address gender-based disparity and increase female representation across a variety of platforms, the institutions are placing greater pressure on female academics requiring them to undertake additional roles and duties not expected of their male counterparts. "There's a huge problem with invisible workload...I've sat on more interview panels than I can count because they want a woman to sit on the panel" (Amy). Such expectations and "tokenism" (Amy, Grace and Anna) has meant that many of the participants have had further complexity added to their role identities with time taken up that could have been put to better use in the pursuit of academic enterprise.

### **4.4 Changing Behaviours**

A further theme emerging from analysis of the data was that of changing behaviours and how female academic entrepreneurs utilised behavioural adjustments as a means of negotiating their role identities. Across the majority of cases, the participants identified the need to negotiate their legitimacy in the development of their academic entrepreneurial identity. Anna recalled

her experiences of working in a male-dominated company on an academic enterprise project and noted that upon her arrival she felt viewed as “the female there in a dress”. Changing her attire and thus becoming “more suitably dressed” at the next meeting, she was able to somewhat legitimise herself by demonstrating her competency in the field. Siobhan, Amy and Carla also referred to the role of attire in negotiating their roles as credible academic entrepreneurs with items such as power suits and high heels used as mechanisms to convey physical domination, legitimacy and credibility.

This experience was mirrored by multiple participants who also identified a sense that as female academic entrepreneurs their behaviours required adjustment to be more in keeping with their male counterparts. In some cases, participants highlighted the need to conceal their emotions, curb their input and foster what they perceived to be typical male behaviours as Siobhan notes “I’m afraid if I give my opinion, they judge me in there and there is always one or two who wait to get the dig in”. While Dolores recalls: “I noticed that if I didn’t change my attitude sometimes, I couldn’t win...so [I changed] by being quiet or easy.” Similarly, Amy detailed her experiences and coping mechanisms while negotiating her role as a female academic entrepreneur, “[Its] survival strategy...if you say that was a totally sexist thing for you to do, you get a reputation as a bitch...so you have got to walk that line between standing up for yourself and not being alienated for that because they are not going to see that their behaviour is inappropriate – they are going to see your response to that behaviour as inappropriate”.

Finally, some of the participants acknowledged changing their behaviours when working with males in order to fit with ascribed masculine behaviours and to feel a sense of belongingness within their discipline. Dolores identified “there is a lot of rough and tumble and laddish behaviour which yeah, I do find myself sometimes engaging with... I think you have to when engaging with males”. Similarly, Siobhan states, “I want to be more like the men in the meetings so I say the least I can”.

#### **4.5 Perception of Self**

Identity work involves individuals endeavouring to shape a coherent self-identity and as part of this constitutive process, the perception of oneself is of central importance (McAdam *et al.*, 2021). The findings presented here relate to the self-perceptions held by the female academic entrepreneurs at the time of the research, all the while acknowledging the shifting and reflexive nature of identity. Analysis of the data found that all of the participants reflected upon their perceptions of themselves and their changing role identities. In relation to their roles as academic entrepreneurs, all of the participants perceive themselves to be highly skilled and competent in their respective fields. Maeve notes that “I’m absolutely passionate and I’ve got belief in what I’ve done to date” while Siobhan stated, “I would be researching stuff now and I’d be researching three or four years before people would have picked up on it.” Carla recalls that “I spent years of people telling me you can’t do this; it can’t be done... when the patent was granted last year, we spun it out into a technology...I’ve got the drive and sheer will.”

Despite tangible confidence in one’s capabilities, the majority of the participants also referred to instances of self-doubt and self-questioning. That being said in most cases such doubt was in response to the actions and comments of others highlighting the interrelated nature of perception of oneself and the perception of others. In several cases, the participants recall how they began to question themselves and their accomplishments and on occasion asking peers for feedback and reassurance as Dearbhla recalls: “My closest friends are male so I would have asked them and [they would respond] ...its clear you got that because of merit”.

The notion of being a “token female” also emerged multiple times in terms of self-perception and the identity work being undertaken by the participants. As previously highlighted, many of those interviewed had experience of being selected for additional

activities in the spirit of “inclusion” and gender parity. In these instances, the female academic entrepreneurs perceived themselves as token gestures and questioned the necessity of their involvement as Anna states: “I’ve sat in meetings and I’m only there because of your token sex...it’s not part of my role, you’ve been drafted in because you’re female.”

#### **4.6 Perception of Others**

In keeping with the awareness that identity is socially situated, it is unsurprising that the women interviewed made multiple references to the perception of others at various instances throughout the interviews. Most notably, participants often reflected on the perceptions of others in relation to the evaluation of themselves as legitimate and credible academic entrepreneurs. Anna typified such sentiments in her description of working within male-dominated settings and being met with “the perception from them that you’re a bit dim”. In such cases, there is a process of challenging such perceptions and proving oneself. As Anna states: “Overtime the gender thing is irrelevant when they see you know what you’re talking about.”. Similarly, Dolores identified that she always made sure she had high-quality publications to ensure she was taken seriously when engaging in large research grants and research collaboration with industry. Such observations were commonplace among the participants with most of them recalling several instances of skewed perceptions of others, instances of legitimacy and credibility being called into question and the re-affirming actions taken by the female academic entrepreneurs in response.

In some cases, the study participants also highlighted the perceptions of others in situations where accolades were attained and the degree of cynicism such achievements can be met with. Commonly referring to the notion of “tokenism” and the tendency of others to ascribe attainments of the female academic entrepreneurs to their gender. “...you’re only getting that because you need to be shown to be positively promoting females” (Grace). “If you do something really great you get it because you’re a woman” (Grace). In some cases, participants indicated that they (and their female colleagues) had avoided engaging with institutional support mechanisms such as Athena Swan in an attempt to avoid being viewed, as Dearbhla describes, as “admitting I am weaker, because I’m female, because I need your help in some programme that you’ve specifically put on for females.” Grace also noted the impact such assumptions had on her, with such perceptions leaving an impression in her mind and causing her to question future activities and attainments and the criteria upon which they were based.

For many participants, their working roles involved interaction and exchange with mostly male colleagues and partners. In some situations, the perceptions of their male counterparts were felt to be unhelpful and laden with gender disparity as Amy recalls: “There is the expectation and if you do tend to offer an opinion or be a little bit more forceful, sometimes...they can be a little bit taken aback and think it’s a little brisk and everything like that but if your male colleague is exhibiting exactly the same behaviour, it doesn’t illicit the same reaction.”

[Insert Table III about here]

### **5 Discussion**

This study makes the following contributions. First, it advances current understanding of the actual lived realities that female academic entrepreneurs experience from a gendered perspective thus addressing the paucity of research on female academic entrepreneurship at the micro-level (see Parker *et al.*, 2017; Halilem *et al.*, 2022). Going beyond existing bodies of research that have examined aspects of female academic entrepreneurship such as the constraints and barriers (Messina *et al.*, 2022), the gendered perspective of academic entrepreneurship (Parker *et al.*, 2017) and gender imbalance, this study highlights the micro-

level complexities that female academic entrepreneurs have to negotiate and navigate in order to pursue academic entrepreneurship in general and to have a legitimate academic entrepreneurial identity in particular. This study highlights the institutional, structural, and personal dimensions that female academic entrepreneurs must navigate and manage at the micro-level in order to overcome gender bias and develop their legitimacy and identity as an academic entrepreneur (McAdam, 2022). Existing studies of academic entrepreneurship have found that the institutional environment is a crucial factor in supporting academic entrepreneurship (Messina *et al.*, 2022; Cunningham *et al.*, 2014). However, this study highlights that the institutional environment does not effectively support or meet the specific needs of female academic entrepreneurs in their pursuit of academic entrepreneurship, despite the expansion of the university remit to incorporate the third mission (Compagnucci and Spigarelli, 2020). Consequently, findings from this study suggest that such institutional supports specifically tailored to support academics wishing to pursue academic entrepreneurship do not adequately take account of the impact of gender. This organisational level void further exacerbates the identity misalignment and role identity violation that female academic entrepreneurs experience. Therefore, the findings suggest that, as Barrett and Vershinina (2017) note, the ‘habitus’ and context itself can severely constrain female academic entrepreneurship to a point where they will not undertake this activity. Interestingly, female academic entrepreneurs acknowledged the unintended consequences that initiatives designed to reduce gender disparities, in reality, had on their role identities as female academic entrepreneurs. This would suggest that such initiatives can add further pressure on female academic entrepreneurs and aggravate the gender challenges they already face. Moreover, organisational wide initiatives such as those presented here are not tailored for academic entrepreneurship and are not sufficient to overcome the associated gender specific challenges encountered by academic entrepreneurs.

The second contribution of this study relates to academic entrepreneurship and identity, and it specifically responds to recent calls for further exploration of how the academic entrepreneurial identity emerges (O’Kane *et al.*, 2019; Wang *et al.*, 2022). Similar to previous studies of role identity in academia, this work affirms at a micro-level, the caring and family responsibilities (Williams and Alliger, 1994) and further extends the work of Miller and Riley (2022) about the tensions that academic mothers experience when pursuing academic entrepreneurship. Beyond this the study provides new insights at the micro-level and in particular the manner in which female academic entrepreneurs have to navigate and manage their changing role identities to pursue academic entrepreneurship. This study sheds new light on the identity work and the impact gender has on female academic entrepreneurs pursuing academic entrepreneurship. Female academic entrepreneurs have to considerably adapt their behaviours, actions, and attire as part of their role identity work to fit in and build legitimacy (Marlow and McAdam, 2015) and experience aggravated identity misalignment (Giunti and Duberey, 2023). In essence, they have to reconstruct their identities (Barrett and Vershinina, 2017) due to a lack of fit between ascribed femininity and embedded masculinity of the broader entrepreneurship domain in order to pursue academic entrepreneurship. In doing so they adopted different strategies to create a sense of belonging and also to overcome situations and environments in which they found themselves being questioned or undermined. This study highlights that academic entrepreneurship is a gender-based activity (McAdam, 2022) and the combination of male-dominated behaviours and actions – both conscious and unconscious-coupled with a “taxing” institutional environment aggravate the sense of identity violation that they experience in pursuing academic entrepreneurship. Consequently, this study finds that, at the micro-level, the predominate identity work undertaken by the female academic entrepreneur focuses on mitigating, managing and navigating these gender-based disparities so as to create a legitimate academic entrepreneurship identity.

Third, this research contributes to contemporary understanding of identity work by focusing on the experiences of female academic entrepreneurs, highlighting the nuanced forms of role identity work undertaken to fit in and build legitimacy. It builds upon existing literature (Marlow and McAdam, 2015) by underscoring how female academics engage in specific forms of identity work, namely belonging, overcoming, visibility, and invisibility. Fitting in is central to identity work, facilitating self-confirmation (Hogg, 2006), however gaining legitimacy as an academic entrepreneur requires constructing an entrepreneurial identity that is deemed legitimate by others (Hytti *et al.*, 2017); ~~thus~~ thus, the female academics had to engage in identity work to navigate and negotiate different symbolic spaces and handle potential contradictions. Fitting in required a sensitivity to prevailing academic and entrepreneurship norms in the pursuit of recognition as an academic entrepreneur (De Clercq and Voronov, 2009). For example, the female academic entrepreneurs adjusted their behaviours and utilised dress attire (Lewis, 2006; García and Welter, 2013). Adoption of external trappings of masculinity assisted in concealing overt femininity, so enabling the women to blend in with the context. This adoption or coping strategy is sometimes referred to as the honorary man persona (Ogbor, 2000). In terms of building legitimacy, the female academic entrepreneurs strove to demonstrate competency, visibility and recognition through self-promotion, public speaking, networking, and seeking out opportunities to showcase their expertise and accomplishments. As a consequence, the identity work undertaken was influenced by dialogues between inner selves and external discourses in the pursuit of affirmation as a legitimate subject (Kenny, 2010; Sveningsson and Alvesson, 2003; Watson, 2009). As such navigating and negotiating different symbolic spaces, role conflict and identity contradictions required specific forms of identity work to attain visibility and legitimacy within academic entrepreneurship.

## **6 Conclusions and Implications**

Overall, the findings revealed that female academics have to undertake a specific type of identity work in order to be deemed legitimate and credible as academic entrepreneurs. Whilst it was identified that demonstrating competency may lead to the dilution of the impact of gender, existing gender disparity meant that masculine norms prevailed. This led to many of the females changing their behaviours to portray a social identity that conformed to prevailing norms (Swail and Marlow, 2018; Marlow and McAdam, 2012) or engaging in mechanisms to prove their perceived credibility (Nentwich, 2006).

Several implications arise from this study. For universities, this research and its findings would suggest that more targeted support is needed to really address the challenges faced by female academic entrepreneurs beyond specific policies that are focused on addressing organisational wide gender inequalities. Such targeted support tailored for academic entrepreneurship could be a mix of formal and informal approaches designed to address specific visible and invisible challenges and the wider institutional cultural environment. In so doing institutions can help eliminate the need for female academic entrepreneurs to undertake behaviours identified in this study in order to fit in and build legitimacy in pursuing academic entrepreneurship. For faculties and departments, consideration needs to be given as to how they proactively address the invisible difference that this study identifies and create supportive local environments for female academic entrepreneurs that accepts and normalises the pursuance of academic entrepreneurship. Tangible evidence of this could result in changes in for example work loading policies and practices. For female academic entrepreneurs, this study unearths confirmatory behaviours and experiences and to this end, such experiences need to be made more visible and articulated to support the mobilisation of changes to university policies, processes and culture that truly supports female academic entrepreneurship.

Finally, this study raised some interesting avenues of research. Acknowledging that this work is limited by the fact that it is based on the experiences of female academic entrepreneurs

within a UK context, further studies could extend this work in different institutional, disciplinary and national contexts. In so doing it would be possible to explore the findings and conclusions generated here relative to those identified in other research contexts offering a more robust and comprehensive understanding of the lived experiences of the female academic entrepreneur. Extending this further and moving beyond a sole focus on the academic entrepreneur future work could examine how graduate, technical and professional service-based female entrepreneurs navigate role identity. More research is needed to better understand the perception of others involved in academic entrepreneurship concerning the legitimacy and credibility dimensions of female academic entrepreneurship. Finally, further studies are needed on the situated environment and the impact of gender at the macro and micro-levels.

## **References**

- Abreu, M. and Grinevich, V. (2013), “The nature of academic entrepreneurship in the UK: widening the focus on entrepreneurial activities”, *Research Policy*, Vol. 42 No. 2, pp.408-422.
- Abreu, M. and Grinevich, V. (2017), “Gender patterns in academic entrepreneurship”, *The Journal of Technology Transfer*, Vol. 42, pp.763-794.
- Ahl, H. (2006), “Why Research on Women Entrepreneurs Needs New Directions. *Entrepreneurship Theory and Practice*, Vol. 30 No. 5, pp.595-621.
- Ashforth, B.E., Harrison, S.H. and Corley, K.G. (2008), “Identification in organizations: an examination of four fundamental questions”, *Journal of Management*, Vol. 34 No. 3, pp.325-374.
- Balven, R., Fenters, V., Siegel, D. S., and Waldman, D. (2018), “Academic entrepreneurship: the roles of identity, motivation, championing, education, work-life balance, and organizational justice”, *Academy of Management Perspectives*, Vol. 32 No. 1, pp.21-42.
- Barrett, R. and Vershinina, N. (2017), “Intersectionality of Ethnic and Entrepreneurial Identities: a study of post-war Polish entrepreneurs in an English city”, *Journal of Small Business Management*, Vol. 55, pp.430-443.
- Bell, E., Meriläinen, S., Taylor, S., and Tienari, J. (2020), “Dangerous Knowledge: The Political, Personal, and Epistemological Promise of Feminist Research in Management and Organization Studies”, *International Journal of Management Reviews*, Vol. 22, pp.177–192.
- Benneworth, P., de Boer, H., and Jongbloed, B. (2015), “Between good intentions and urgent stakeholder pressures: institutionalizing the universities' third mission in the Swedish context”, *European Journal of Higher Education*, Vol. 5 No. 3, pp.280-296.
- Berkowitz, S. (1997), “Analyzing qualitative data”, Frechtling, J. and Sharp, L.M. (Ed.s), *User-friendly handbook for mixed method evaluations*, Diane Publishing, pp.4.1-4.19.
- Bercovitz, J. and Feldman, M. (2008), “Academic entrepreneurs: organizational change at the individual level”, *Organization Science*, Vol. 19 No. 1, pp.69-89.
- Besley, J.C., Dudo, A., Yuan, S. and Lawrence, F. (2018), “Understanding scientists’ willingness to engage”, *Science Communication*, Vol. 40 No. 5, pp.559-590.
- Bilić, I., Škokić, V. and Lovrinčević, M. (2021), “Academic entrepreneurship in post-transition country—case study of Croatia”, *Journal of the Knowledge Economy*, Vol. 12, pp.41-55.
- Bird, S., Litt, J., and Wang, Y. (2004), “Creating Status of Women Reports: institutional housekeeping as “Women’s Work””, *NWSA Journal*, Vol. 16 No. 1, pp.194–206.
- Bloom, M., Colbert, A.E. and Nielsen, J.D. (2021), “Stories of calling: how called professionals construct narrative identities”, *Administrative Science Quarterly*, Vol. 66 No. 2, pp.298-338.

Blount-Hill, K.L. (2021), “Exploring a social identity theory of shared narrative: insights from resident stories of police contact in Newark, New Jersey, and Cleveland, Ohio”, *Criminal justice and behavior*, Vol. 48 No. 6, pp.810-827.

Boussebaa, M. and Brown, A.D. (2017), “Englishization, identity regulation and imperialism”, *Organization Studies*, Vol. 38 No. 1, pp.7-29.

Braun, V., Clarke, V., and Hayfield, N. (2022), ““A starting point for your journey, not a map”: Nikki Hayfield in conversation with Virginia Braun and Victoria Clarke about thematic analysis”, *Qualitative Research in Psychology*, Vol. 19 No. 2, pp.424–445.

Brennan, M.C. and McGowan, P. (2006), “Academic entrepreneurship: an exploratory case study”, *International Journal of Entrepreneurial Behavior & Research*, Vol. 12 No. 3, pp.144-164.

Brown, A.D. (2015), “Identities and identity work in organizations”, *International journal of management reviews*, Vol. 17 No. 1, pp.20-40.

Brown, A.D. and Lewis, M.A. (2011), “Identities, discipline and routines”, *Organization Studies*, Vol. 32 No. 7, pp.871-895.

Butler, J. (2004), *Undoing gender*, Unite States: Psychology Press.

Calás, M.B., Smircich, L. and Bourne, K.A. (2009), “Extending the boundaries: reframing “entrepreneurship as social change” through feminist perspectives”, *Academy of Management Review*, Vol. 34 No. 3, pp.552-569.

Carlson, J. and Jennings, J. (2024), “Ideas for bridging the academic-policy divide at the nexus of gender and entrepreneurship”, *International Journal of Entrepreneurial Behavior & Research*. <https://doi.org/10.1108/IJEBR-03-2023-0267>

Callerstig, A.-C., Lindvert, M., Ljunggren, E.C., Breivik-Meyer, M., Alsos, G.A. and Balkmar, D. (2024), “Contextualising gender policy in tech entrepreneurship: a cross national and multiple-level analysis”, *International Journal of Entrepreneurial Behavior & Research*. <https://doi.org/10.1108/IJEBR-04-2023-0422>

Caza, B.B., Vough, H. and Puranik, H. (2018), “Identity work in organizations and occupations: definitions, theories, and pathways forward”, *Journal of Organizational Behavior*, Vol. 39 No. 7, pp.889-910.

Cesaroni, F.M., Sentuti, A. and Pediconi, M.G. (2021), “Fading and transformation: how a woman entrepreneur's multiple identities interact throughout her life”, *International Journal of Entrepreneurial Behavior & Research*, Vol. 27 No. 4, pp.1033-1053.

Chasserio, S., Pailot, P. and Poroli, C. (2014), “When entrepreneurial identity meets multiple social identities: interplays and identity work of women entrepreneurs”, *International Journal of Entrepreneurial Behavior & Research*, Vol. 20 No. 2, pp.128-154.

Cheryan, S., Ziegler, S.A., Montoya, A.K. and Jiang, L. (2017), “Why are some STEM fields more gender balanced than others?”, *Psychological Bulletin*, Vol. 143 No. 1, p.1.

Clarysse, B., Tartari, V. and Salter, A. (2011), "The impact of entrepreneurial capacity, experience and organizational support on academic entrepreneurship", *Research Policy*, Vol. 40 No. 8, pp.1084-1093.

Cohen, L., Duberley, J. and Mallon, M. (2004), "Social constructionism in the study of career: accessing the parts that other approaches cannot reach", *Journal of Vocational Behavior*, Vol. 64 No. 3, pp.407-422.

Compagnucci, L., and Spigarelli, F. (2020), "The Third Mission of the university: a systematic literature review on potentials and constraints", *Technological Forecasting and Social Change*, Vol. 161, p.120284.

Corley, E. and Gaughan, M. (2005), "Scientists' participation in university research centers: what are the gender differences?", *The Journal of Technology Transfer*, Vol. 30 No. 4, pp.371-381.

Crosina, E. and Pratt, M.G. (2019), "Toward a model of organizational mourning: the case of former Lehman Brothers bankers", *Academy of Management Journal*, Vol. 62 No. 1, pp.66-98.

Crowley-Henry, M. and Weir, D. (2007), "The international protean career: four women's narratives", *Journal of Organizational Change Management*, Vol. 20 No. 2, pp.245-258.

Cunningham J.A., O'Reilly P, O'Kane C, and Mangematin, V. (2014) The Inhibiting Factors that Publicly Funded Principal Investigators Experience in Leading Publicly Funded Research Projects", *Journal of Technology Transfer*, Vol. 39 No. 1, pp.93–110.

Cunningham, J.A., and Menter, M. (2020), "Micro-level academic entrepreneurship: a research agenda", *Journal of Management Development*, Vol. 39 No. 5, pp.581-598.

Cunningham, J.A., Dolan, B., Menter, M., O'Kane, C., and O'Reilly, P. (2020), "How principal investigators' commercial experience influences technology transfer and market impacts", *Research-Technology Management*, Vol. 63 No. 5, pp.49-58.

Cunningham, J.A., Menter, M., and Wirsching, K. (2019), "Entrepreneurial ecosystem governance: a principal investigator-centered governance framework", *Small Business Economics*, Vol. 52, pp.545-562.

Cunningham, J. A., O'Reilly, P., Dolan, B., O'Kane, C. and Mangematin, V. (2017), "Gender differences and academic entrepreneurship: a study of Scientists in the principal investigator role", Link, A.N. (Ed.), *Gender and Entrepreneurial Activity*, Cheltenham: Edward Elgar Publishing, pp.221–251.

D'Este, P. and Patel, P. (2007), "University–industry linkages in the UK: what are the factors underlying the variety of interactions with industry?", *Research Policy*, Vol. 36 No. 9, pp.1295-1313.

D'Este, P. and Perkmann, M. (2011), "Why do academics engage with industry? The entrepreneurial university and individual motivations", *Journal of Technology Transfer*, Vol. 36, pp.316–339.

Davey, T. and Galan-Muros, V. (2020), "Understanding entrepreneurial academics-how they perceive their environment differently", *Journal of Management Development*, Vol. 39 No. 5, pp.599-617.

Davey, T., Rossano, S., and Van Der Sijde, P. (2016), "Does context matter in academic entrepreneurship? The role of barriers and drivers in the regional and national context", *The Journal of Technology Transfer*, Vol. 41, pp.1457-1482.

Davis, J.L., Love, T.P. and Fares, P. (2019), "Collective Social Identity: synthesizing identity theory and social identity theory using digital data", *Social Psychology Quarterly*, Vol. 82 No. 3, pp.254–273.

De Clercq, D. and Voronov, M. (2009), "Toward a practice perspective of entrepreneurship: entrepreneurial legitimacy as habitus", *International Small Business Journal*, Vol. 27 No. 4, pp.395-419.

De Silva, M. (2016), "Academic entrepreneurship and traditional academic duties: synergy or rivalry?", *Studies in Higher Education*, Vol. 41 No. 12, pp.2169-2183.

Di Paola, N. (2021), "Pathways to academic entrepreneurship: the determinants of female scholars' entrepreneurial intentions", *The Journal of Technology Transfer*, Vol. 46 No. 5, pp.1417-1441.

Dohse, D., Goel, R.K. and Nelson, M.A. (2019), "Female owners versus female managers: who is better at introducing innovations?", *The Journal of Technology Transfer*, Vol. 44, pp.520-539.

Duberley, J. and Carrigan, M. (2013), "The career identities of 'mumpreneurs': women's experiences of combining enterprise and motherhood", *International Small Business Journal*, Vol. 31 No. 6, pp.629-651.

Ekinsmyth, C. (2013), "Managing the business of everyday life: the roles of space and place in 'mumpreneurship'", *International Journal of Entrepreneurial Behaviour & Research*, Vol. 19 No. 5, pp.525-546.

Epstein, A., Duval-Couetil, N., and Huang-Saad, A. (2022), "Gender differences in academic entrepreneurship: experience, attitudes and outcomes among NSF I-CORPS participants", *International Journal of Gender and Entrepreneurship*, Vol. 14 No. 1, pp.117-141.

Fischer, B.B., de Moraes, G.H.S.M. and Schaeffer, P.R. (2019), "Universities' institutional settings and academic entrepreneurship: notes from a developing country", *Technological Forecasting and Social Change*, Vol. 147, pp.243-252.

Fujita, M., Harrigan, P. and Soutar, G.N. (2018), “Capturing and co-creating student experiences in social media: a social identity theory perspective”, *Journal of Marketing Theory and Practice*, Vol. 26 No. 1-2, pp.55-71.

Galati, F., Bigliardi, B., Passaro, R. and Quinto, I. (2020), “Why do academics become entrepreneurs? How do their motivations evolve? Results from an empirical study”, *International Journal of Entrepreneurial Behavior & Research*, Vol. 26 No. 7, pp.1477-1503.

García, M.C.D. and Welter, F. (2013), “Gender identities and practices: interpreting women entrepreneurs’ narratives”, *International Small Business Journal*, Vol. 31 No. 4, pp.384-404.

Gaspar Pacheco, A.I., Ferreira, J., Simoes, J., Mota Veiga, P. and Dabic, M. (2024), “Mechanisms for facilitating academic entrepreneurship in higher education”, *International Journal of Entrepreneurial Behavior & Research*. <https://doi.org/10.1108/IJEBR-04-2023-0333>

Gehman, J., Glaser, V., Eisenhardt, K., Gioia, D., Langley, A., and Corley, K. (2018), “Finding theory–method fit: a comparison of three qualitative approaches to theory building”, *Journal of Management Inquiry*, Vol. 27 No. 3, pp.284–300.

Geuna, A. and Nesta, L.J. (2006), “University patenting and its effects on academic research: the emerging European evidence”, *Research Policy*, Vol. 35 No. 6, pp.790-807.

Gioia, D. (2021), “A Systematic Methodology for Doing Qualitative Research”, *The Journal of Applied Behavioral Science*, Vol. 57 No. 1, pp.20–29.

Giunti, G. and Duberley, J. (2023), “Academic entrepreneurship: work identity in contexts”, *Entrepreneurship & Regional Development*, Vol. 35 No. 5-6, pp.532-552.

Göktepe-Hulten, D. and Mahagaonkar, P. (2010), “Inventing and patenting activities of scientists: in the expectation of money or reputation?”, *The Journal of Technology Transfer*, Vol. 35, pp.401-423.

Greco, L.M., and Kraimer, M.L. (2020), “Goal-setting in the career management process: an identity theory perspective”, *Journal of Applied Psychology*, Vol. 105 No. 1, pp.40–57.

Guindalini, C., Verreyne, M.L., and Kastle, T. (2021), “Taking scientific inventions to market: mapping the academic entrepreneurship ecosystem”, *Technological Forecasting and Social Change*, Vol. 173, p.121144.

Guo, Y., Rammal, H.G. and Pereira, V. (2021), “Am I ‘In or Out’? A social identity approach to studying expatriates’ social networks and adjustment in a host country context”, *Journal of Business Research*, Vol. 136, pp.558-566.

Halilem, N., De Silva, M. and Amara, N. (2022), “Fairly assessing unfairness: an exploration of gender disparities in informal entrepreneurship amongst academics in business schools”, *Technological Forecasting and Social Change*, Vol. 174, p.121295.

Hamdani, N.A., Ramadani, V., Anggadwita, G., Maulida, G.S., Zuferi, R. and Maalaoui, A. (2023), “Gender stereotype perception, perceived social support and self-efficacy in increasing

women's entrepreneurial intentions”, *International Journal of Entrepreneurial Behavior & Research*, Vol. 29 No. 6, pp.1290-1313.

Hayter, C. S., Fischer, B., and Rasmussen, E. (2021), “Becoming an academic entrepreneur: how scientists develop an entrepreneurial identity”, *Small Business Economics*, Vol. 59, pp.1469-1487.

Henry, C., Foss, L., and Ahl, H. (2016), “Gender and entrepreneurship research: a review of methodological approaches”, *International Small Business Journal*, Vol. 34 No. 3, pp.17–241.

Hill, F.M., Leitch, C.M. and Harrison, R.T. (2006), “‘Desperately seeking finance?’ The demand for finance by women-owned and-led businesses”, *Venture Capital*, Vol. 8 No. 2, pp.159-182.

Hogg, M.A. (2001), “From prototypicality to power: a social identity analysis of leadership”, *Advances in group processes*, Vol. 18, pp.1-30.

Hogg, M.A. (2016), “Social Identity Theory”, McKeown, S., Haji, R., and Ferguson, N. (Ed.s), *Understanding Peace and Conflict Through Social Identity Theory. Peace Psychology Book Series*, Cham: Springer, International Publishing, pp.3-17.

Horton, K.E., Bayerl, P.S. and Jacobs, G. (2014), “Identity conflicts at work: an integrative framework”, *Journal of Organizational Behavior*, Vol. 35 No. S1, pp.S6-22.

Hu, X., Marlow, S., Zimmermann, A., Martin, L. and Frank, R. (2020), “Understanding opportunities in social entrepreneurship: a critical realist abstraction”, *Entrepreneurship Theory and Practice*, Vol. 44 No. 5, pp.1032-1056.

Hughes, N., Locock, L. and Ziebland, S. (2013), “Personal identity and the role of ‘carer’ among relatives and friends of people with multiple sclerosis”, *Social Science & Medicine*, Vol. 96, pp.78-85.

Hytti, U., Alsos, G.A., Heinonen, J. and Ljunggren, E. (2017), “Navigating the family business: a gendered analysis of identity construction of daughters”, *International Small Business Journal*, Vol. 35 No. 6, pp.665-686.

Hytti, U. (2010), “Contextualizing entrepreneurship in the boundaryless career”, *Gender in Management: An International Journal*, Vol. 25 No. 1, pp.64-81.

Ibarra, H. (1999), “Provisional selves: experimenting with image and identity in professional adaptation”, *Administrative Science Quarterly*, Vol. 44 No. 4, pp.764-791.

Ibarra, H. and Barbulescu, R. (2010), “Identity as narrative: prevalence, effectiveness, and consequences of narrative identity work in macro work role transitions”, *Academy of Management Review*, Vol. 35 No. 1, pp.135-154.

Jain, S., George, G. and Maltarich, M. (2009), “Academics or entrepreneurs? Investigating role identity modification of university scientists involved in commercialization activity”, *Research Policy*, Vol. 38 No. 6, pp.922-935.

- Järventie-Thesleff, R., and Tienari, J. (2016), “Roles as Mediators in Identity Work”, *Organization Studies*, Vol. 37 No. 2, pp.237-265.
- Jensen, L.E. and Deemer, E.D. (2019), “Identity, campus climate, and burnout among undergraduate women in STEM fields”, *The Career Development Quarterly*, Vol. 67 No. 2, pp.96-109.
- Karataş-Özkan, M., and Chell, E. (2015), “Gender inequalities in academic innovation and enterprise: a Bourdieuan analysis”, *British Journal of Management*, Vol. 26 No. 1, pp.109-125.
- Kenny, K.M. (2010), “Beyond ourselves: passion and the dark side of identification in an ethical organization”, *Human Relations*, Vol. 63 No. 6, pp.857-873.
- Klag, M., and Langley, A. (2013), “Approaching the Conceptual Leap in Qualitative Research”, *International Journal of Management Reviews*, Vol. 15 No. 2, pp.149–166.
- Johnson, M., Monsen, E.W. and MacKenzie, N.G. (2017), “Follow the Leader or the Pack? Regulatory Focus and Academic Entrepreneurial Intentions”, *Journal of Product Innovation Management*, Vol. 34 No. 2, pp.181–200.
- Kanzola, A.M., Papaioannou, K. and Petrakis, P.E. (2022), “Social identity, rationality, creativity”, *International Journal of Entrepreneurial Behavior & Research*, Vol. 28 No. 1, pp.136-150.
- Karhunen, P., Olimpieva, I. and Hytti, U. (2017), “Identity work of science-based entrepreneurs in Finland and in Russia”, *Entrepreneurship & Regional Development*, Vol. 29 No. 5-6, pp.544-566.
- Kochenkova, A., Grimaldi, R. and Munari, F. (2016), “Public policy measures in support of knowledge transfer activities: a review of academic literature”, *The Journal of Technology Transfer*, Vol. 41, pp.407-429.
- Laukkanen, M. (2003), “Exploring academic entrepreneurship: drivers and tensions of university-based business”, *Journal of Small Business and Enterprise Development*, Vol. 10 No. 4, pp.372–382.
- Leavy, P., and Harris, A. (2018), *Contemporary Feminist Research from Theory to Practice*, Guilford press.
- Lee, S, McHale, S.M., Crouter, A.C., Hammer, L.B. and Almeida, D.M. (2017), “Finding time over time: longitudinal links between employed mothers’ work-family conflict and time profiles”, *Journal of Family Psychology*, Vol. 31 No. 5, pp.604–615,
- Lee, A. and Jung, E. (2021), “The mediating role of entrepreneurial mindset between intolerance of uncertainty and career adaptability”, *Sustainability*, Vol. 13 No. 13, p.7099.
- Lee, T.L. and Tapia, M. (2021), “Confronting race and other social identity erasures: the case for critical industrial relations theory”, *ILR Review*, Vol. 74 No. 3, pp.637-662.

- Lewis, P. (2006), "The quest for invisibility: female entrepreneurs and the masculine norm of entrepreneurship", *Gender, Work & Organization*, Vol. 13 No. 5, pp.453-469.
- Ma, Y. and Turel, O. (2019), "Information technology use in Chinese firms and work-family conflict: the moderating role of guanxi", *Telematics & Informatics*, Vol. 41, pp.229–238.
- MacNabb, A., McCoy, J., Weinreich, P. and Northover, M. (1993), "Using identity structure analysis (ISA) to investigate female entrepreneurship", *Entrepreneurship & Regional Development*, Vol. 5 No. 4, pp.301-313.
- MacEwen, K.E. and Barling, J. (1988), "Inter-role conflict, family support and marital adjustment of employed mothers: a short term, longitudinal study", *Journal of Organizational Behavior*, Vol. 9 No. 3, pp.241–250.
- Makarova, E., Aeschlimann, B. and Herzog, W. (2019), "The gender gap in STEM fields: the impact of the gender stereotype of math and science on secondary students' career aspirations", *Frontiers in Education*, Vol. 4 No. 60, pp.1-11.
- Marlow, S. and McAdam, M. (2012), "Analyzing the influence of gender upon high-technology venturing within the context of business incubation", *Entrepreneurship Theory and Practice*, Vol. 36 No. 4, pp.655-676.
- Marlow, S. and McAdam, M. (2015), "Incubation or induction? Gendered identity work in the context of technology business incubation", *Entrepreneurship Theory and Practice*, Vol. 39 No. 4, pp.791-816.
- Mars, M.M. and Rios-Aguilar, C. (2010), "Academic entrepreneurship (re) defined: significance and implications for the scholarship of higher education", *Higher Education*, Vol. 59, pp.441-460.
- Marta, E., Manzi, C., Pozzi, M. and Vignoles, V.L. (2014), "Identity and the theory of planned behavior: predicting maintenance of volunteering after three years", *The Journal of Social Psychology*, Vol. 154 No. 3, pp.198-207.
- Martin, L., Wright, L., Beaven, Z. and Matlay, H. (2015), "An unusual job for a woman? Female entrepreneurs in scientific, engineering and technology sectors", *International Journal of Entrepreneurial Behavior & Research*, Vol. 21 No. 4, pp.539-556.
- McAdam, M., (2022), *Women's Entrepreneurship*, Routledge.
- McAdam, M., Harrison, R.T. and Leitch, C.M. (2019), "Stories from the field: women's networking as gender capital in entrepreneurial ecosystems", *Small Business Economics*, Vol. 53, pp.459-474.
- McAdam, M., Brophy, M. and Harrison, R.T. (2021), "Anointed or appointed? Father-daughter succession within the family business", *International Small Business Journal*, Vol. 39 No. 6, pp.576-600.
- McAdams, D.P. (2018), "Narrative identity: What is it? What does it do? How do you measure it?", *Imagination, Cognition and Personality*, Vol. 37 No. 3, pp.359-372.

Meek, W.R. and Wood, M.S. (2016), “Navigating a sea of change: identity misalignment and adaptation in academic entrepreneurship”, *Entrepreneurship Theory and Practice*, Vol. 40 No. 5, pp.1093-1120.

Merton, R. (1957), *Social Theory and Social Structure*, Glencoe: Free Press.

Messina, L., Miller, K., Galbraith, B. and Hewitt-Dundas, N. (2022), “A recipe for USO success? Unravelling the micro-foundations of dynamic capability building to overcome critical junctures”, *Technological Forecasting and Social Change*, Vol. 174, p.121257.

Miller, K.E., and Riley, J. (2022), “Changed Landscape, Unchanged Norms: work-family conflict and the persistence of the academic mother ideal”, *Innovative Higher Education*, Vol. 47, pp.471–492.

Miller, K., Alexander, A., Cunningham, J.A. and Albats, E. (2018), “Entrepreneurial academics and academic entrepreneurs: a systematic literature review”, *International Journal of Technology Management*, Vol. 77 No. 1-3, pp.9-37.

Minello, A., Martucci, S. and Manzo, L.K. (2021), “The pandemic and the academic mothers: present hardships and future perspectives”, *European Societies*, Vol. 23 No. sup1, pp. S82-S94.

Miranda, F.J., Chamorro-Mera, A. and Rubio, S. (2017), “Academic entrepreneurship in Spanish universities: an analysis of the determinants of entrepreneurial intention”, *European Research on Management and Business Economics*, Vol. 23 No. 2, pp.113-122.

Modic, D., Hafner, A., and Valič-Besednjak, T. (2022), “Every Woman Is a Vessel: an exploratory study on gender and academic entrepreneurship in a nascent technology transfer system”, Barberá-Tomás, D., Azagra-Caro, J.M. and D'Este, P. (Ed.s), *University-Industry Knowledge Interactions: People, Tensions and Impact*, Cham: Springer International Publishing, pp.159-178.

Nentwich, J.C. (2006), “Changing gender: the discursive construction of equal opportunities”, *Gender, Work & Organization*, Vol. 13 No. 6, pp.499-521.

Neves, S., and Brito, C. (2020), “Academic entrepreneurship intentions: a systematic literature review”, *Journal of Management Development*, Vol. 39 No. 5, pp.645-704.

Nicotra, M., Del Giudice, M., and Romano, M. (2021), “Fulfilling University third mission: towards an ecosystemic strategy of entrepreneurship education”, *Studies in Higher Education*, Vol. 46 No. 5, pp.1000-1010.

O’Kane, C., Haar, J., and Zhang, J. A. (2022), “Examining the micro-level challenges experienced by publicly funded university principal investigators”, *R&D Management*, Vol. 52 No. 4, pp.650-669.

O’Kane, C., Mangematin, V., Zhang, J. A., and Cunningham, J.A. (2020), “How university-based principal investigators shape a hybrid role identity”, *Technological Forecasting and Social Change*, Vol. 159, pp.120179.

O’Kane, C., Zhang, J.A., Daellenbach, U. and Davenport, S. (2019), “Building entrepreneurial behaviours in academic scientists: past perspective and new 22 initiatives”, McAdam, M. and Cunningham, J.A. (Ed.s), *Entrepreneurial Behaviour*, Palgrave Macmillan, pp.145–166.

Obschonka, M., Moeller, J., and Goethner, M. (2019), “Entrepreneurial passion and personality: the case of academic entrepreneurship”, *Frontiers in Psychology*, Vol. 9 No. 2697, pp.1-11.

Ogbor, J.O. (2000), “Mythicizing and reification in entrepreneurial discourse: ideology-critique of entrepreneurial studies”, *Journal of Management Studies*, Vol. 37 No. 5, pp.605-635.

Ojediran, O., Discua Cruz, A. and Anderson, A. (2022), “Identities and the pursuit of legitimacy: a study of black women wine industry entrepreneurs”, *International Journal of Entrepreneurial Behavior & Research*, Vol. 28 No. 8, pp.2182-2207.

Park, S.M. (1996), “Research, teaching, and service. Why shouldn’t women’s work count?”, *Journal of Higher Education*, Vol. 67 No. 1, pp.46–84.

Parker, M., Hayter, C. S., Lauren, L., Mohammed, R., and Link, A. (2017), “Barriers to academic entrepreneurship among women: a review of the constituent literatures”, Link, A.N. (Ed.), *Gender and Entrepreneurial Activity*. Cheltenham: Edward Elgar Publishing, pp.117-150.

Pattnaik, S., Mmbaga, N., White, T.D. and Reger, R.K. (2023), “To entrepreneur or not to entrepreneur? How identity discrepancies influence enthusiasm for academic entrepreneurship”, *The Journal of Technology Transfer*, pp.1-27.

Pepper, M. (2022) “Theorising the police support volunteer experience in an English constabulary: a role identity perspective”, *Policing and Society*, Vol. 32 No. 8, pp.1031-1047.

Perkmann, M., Tartari, V., McKelvey, M., Autio, E., Broström, A., D’este, P., Fini, R., Geuna, A., Grimaldi, R., Hughes, A. and Krabel, S. (2013), “Academic engagement and commercialisation: a review of the literature on university–industry relations”, *Research Policy*, Vol. 42 No. 2, pp.423-442.

Pratt, M.G. (2007), “Fitting Oval Pegs into Round Holes”, *Organizational Research Methods*, Vol. 11 No. 3, pp.481–509.

Reimann, M., Peters, E. and Diewald, M. (2022), “COVID-19 and work–family conflicts in Germany: risks and chances across gender and parenthood”, *Frontiers in Sociology*, Vol. 6, p.780740.

Rosa, P., and Dawson, A. (2006), “Gender and the commercialization of university science: academic founders of spinout companies”, *Entrepreneurship and Regional Development*, Vol. 18 No. 4, pp.341-366.

Rostron, A. (2021), “How to be a hero: how managers determine what makes a good manager through narrative identity work”, *Management Learning*, Vol. 53 No. 3, pp.417-438.

Rubens, A., Spigarelli, F., Cavicchi, A., and Rinaldi, C. (2017), “Universities’ third mission and the entrepreneurial university and the challenges they bring to higher education institutions”, *Journal of Enterprising Communities: People and Places in the Global Economy*, Vol. 11 No. 3, pp.354-372.

Sánchez-Barrioluengo, M. and Benneworth, P. (2019), “Is the entrepreneurial university also regionally engaged? Analysing the influence of university's structural configuration on third mission performance”, *Technological Forecasting and Social Change*, Vol. 141 No. 2019, pp.206-218.

Sciarelli, M., Landi, G. C., Turriziani, L., and Tani, M. (2021), “Academic entrepreneurship: founding and governance determinants in university spin-off ventures”, *The Journal of Technology Transfer*, Vol. 46 No. 4, pp.1083-1107.

Shi, Y., Zou, B. and Santos, R.S. (2021), “Dr. Jekyll and Mr. Hyde: how do academic entrepreneurs deal with identity conflict?”, *Review of Managerial Science*, Vol. 15 No. 8, pp.2165-2191.

Siegel, D. S. and Wright, M. (2015), “Academic entrepreneurship: time for a rethink?”, *British Journal of Management*, Vol. 26 No. 4, pp.582-595.

Siuty, M.B. (2019), “Teacher preparation as interruption or disruption? Understanding identity (re) constitution for critical inclusion”, *Teaching and Teacher Education*, Vol. 81 No. 1, pp.38-49.

Smith, H.L., Etzkowitz, H., Meschitti, V., and Poulouvassilis, A. (2017), *Female academic entrepreneurship and commercialisation*, New York, NY: Routledge.

Stets, J.E. and Serpe, R.T. (2016), *New directions in identity theory and research*, Oxford University Press.

Stirzaker, R. and Sitko, R. (2018), “The older entrepreneurial self: intersecting identities of older women entrepreneurs”, *International Journal of Entrepreneurial Behavior & Research*, Vol. 25 No. 8, pp.1748-1765.

Stolze, A. and Sailer, K. (2021), “Advancing HEIs’ third-mission through dynamic capabilities: the role of leadership and agreement on vision and goals”, *The Journal of Technology Transfer*, Vol. 47, pp.580-604.

Stryker, S. and Burke, P.J. (2000), “The past, present, and future of an identity theory”, *Social Psychology Quarterly*, Vol. 63 No. 4, pp.284-297.

Stryker, S. and Serpe, R.T. (1982), “Commitment, Identity Salience, and Role Behavior: theory and research example”, Ickes, W., and Knowles, E.S. (Ed.s), *Personality, Roles, and Social Behavior*, New York, NY: Springer.

Sveningsson, S. and Alvesson, M. (2003), “Managing managerial identities: organizational fragmentation, discourse and identity struggle”, *Human Relations*, Vol. 56 No. 10, pp.1163-1193.

Swail, J. and Marlow, S. (2018), “‘Embrace the masculine; attenuate the feminine’—gender, identity work and entrepreneurial legitimation in the nascent context”, *Entrepreneurship & Regional Development*, Vol. 30 No. 1-2, pp.256-282.

Tajfel, H. and Turner, J.C. (1979), “An integrative theory of intergroup conflict”. Austin, W.G. and Worchel, S. (Ed.s), *The Social Psychology of Intergroup Relations*, Monterey: Brooks/Cole, pp.33-47.

Tartari, V. and Salter, A. (2015), “The engagement gap: exploring gender differences in University–Industry collaboration activities”, *Research Policy*, Vol. 44 No. 6, pp.1176-1191.

Terry, G., Hayfield, N., Clarke, V. and Braun, V. (2017), “Thematic analysis”, *The SAGE handbook of qualitative research in psychology*, Vol. 2, pp.17-37.

Treanor, L. (2022), “Gender, STEM women and entrepreneurship: a review and future research directions”, *International Journal of Gender and Entrepreneurship*, Vol. 14 No. 4, pp.499-520.

Treviño, L.J., Balkin, D.B. and Gomez-Mejia, L.R. (2017), “How “doing gender” leads to gender imbalances in the higher ranks in colleges of business [and how to “undo gender”]”, *Academy of Management Learning & Education* Vol. 16 No. 3, pp.439-453.

Urban, B. and Chantson, J.J.T.J. (2019), “Academic entrepreneurship in South Africa: testing for entrepreneurial intentions”, *The Journal of Technology Transfer*, Vol. 44, pp.948-980.

Vakil, S. (2018), “Ethics, identity, and political vision: toward a justice-centered approach to equity in computer science education”, *Harvard Educational Review*, Vol. 88 No. 1, pp.26-52.

Vorley, T. and Nelles, J. (2009), “Building entrepreneurial architectures: a conceptual interpretation of the third mission”, *Policy Futures in Education*, Vol. 7 No. 3, pp.84-296.

Wadhvani, R.D., Galvez-Behar, G., Mercelis, J. and Guagnini, A. (2017), “Academic entrepreneurship and institutional change in historical perspective”, *Management & Organizational History*, Vol. 12 No. 3, pp.175-198.

Walter, S.G., Schmidt, A. and Walter, A. (2016), “Patenting rationales of academic entrepreneurs in weak and strong organizational regimes”, *Research Policy*, Vol. 45 No. 2, pp.533-545.

Wang, M., Cai, J. and Munir, H. (2022), “Academic entrepreneurship in China: individual human capital and institutional context in higher education organisations”, *Asian Journal of Technology Innovation*, Vol. 30 No. 1, pp.134-157.

Wang, M., Cai, J., Soetanto, D., and Guo, Y. (2023), “Why do academic scientists participate in academic entrepreneurship? An empirical investigation of department context and the antecedents of entrepreneurial behavior”, *Journal of Small Business Management*, Vol. 61 No. 4, pp.1497-1528.

Wang, M., Soetanto, D., Cai, J. and Munir, H. (2021), “Scientist or Entrepreneur? Identity centrality, university entrepreneurial mission, and academic entrepreneurial intention”, *The Journal of Technology Transfer*, Vol. 47, pp.119-146.

Watson, T.J. (2009), “Entrepreneurial action, identity work and the use of multiple discursive resources: the case of a rapidly changing family business”, *International Small Business Journal*, Vol. 27 No. 3, pp.251-274.

Whittington, K.B. (2011), “Mothers of invention? Gender, motherhood, and new dimensions of productivity in the science profession”, *Work and Occupations*, Vol. 38 No. 3, pp.417-456.

Williams, K.J. and Alliger, G.M. (1994), “Role stressors, mood spillover, and perceptions of work-family conflict in employed parents”, *Academy of Management Journal*, Vol. 37 No. 4, pp.837-868.

Williams, J. and Patterson, N. (2018), “New directions for entrepreneurship through a gender and disability lens”, *International Journal of Entrepreneurial Behavior & Research*, Vol. 25 No. 8, pp.1706-1726.

Wolfinger, N.H., Mason, M.A. and Goulden, M. (2008), “Problems in the Pipeline: gender, marriage, and fertility in the ivory tower”, *The Journal of Higher Education*, Vol. 79 No. 4, pp.388-405.

Ybema, S., Keenoy, T., Oswick, C., Beverungen, A., Ellis, N. and Sabelis, I. (2009), “Articulating identities”, *Human Relations*, Vol. 62 No. 3, pp.299-322.

Yin, R.K. (2011), *Qualitative research from start to finish*, The Guilford Press.

Zou, B., Guo, J., Guo, F., Shi, Y., and Li, Y. (2019), “Who am I? The influence of social identification on academic entrepreneurs’ role conflict”, *International Entrepreneurship and Management Journal*, Vol. 15, pp.363-384.