

# Think manager – Think *male* or *female*: exploring the content of gendered stereotypes of the managerial role among undergraduate business students in Ireland over a 10-year period

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## Abstract

**Purpose** – Using Schein’s Descriptive Index (SDI), this paper aims to first examine gender role stereotypes and requisite managerial characteristics among Irish business students over a 10-year period. Then, the paper investigates whether there have been changes in gender role stereotypes during this period and subsequently unpack the reasons behind any changes recorded.

**Design/methodology/approach** – In total, 1,124 students from the same business student population rated men, women and managers in general, using SDI. Data was collected first during the academic year 2008–2009 and again in 2018–2019 to determine stability or change in gender role stereotypes and requisite managerial characteristics. Intraclass correlation coefficients scores were computed to determine the relationship between gender and requisite managerial characteristics and identify differences and similarities between the two samples. To explore the content of gender stereotypes, an examination of the specific descriptive items was conducted by performing a factorial analysis using Duncan’s Multiple Range Test. Finally, the authors adapted the scales developed by Duehr and Bono (2006) to determine whether broad gender stereotypic characteristics with respect to communal and agentic, attributed to men, women and managers, differ by sample.

**Findings** – The overall findings indicate changes in the extent of gender role stereotyping of the managerial role among the male cohorts studied. The subsequent analysis of the descriptive items identified that the change among the male cohort is due to the levels of agency they perceive women to now possess.

**Research limitations/implications** – The authors contribute to the literature on both gendered and managerial stereotypes by showing changes in the pro-male stereotype of the managerial role and contribute to the existing debate on a shift towards a more androgynous view of leadership.

**Practical implications** – These findings help understand the content of gender role stereotypes that recent graduates bring with them to their first job post-graduation. The observed changes in the level of agency ascribed to women by their male counterparts could prove to be an important step forward for women’s advancement to managerial positions.

**Originality/value** – The findings indicate that both male and female cohorts in Sample 2 perceived men and women in general to possess the same levels of communal and agentic traits as their managerial counterparts.

**Keywords** Gender role stereotypes, Women in management, Agency, Communal, Schein’s Descriptive Index

**Paper type** Research paper



## Introduction

Despite significant progress towards gender equality in the workplace over the past few decades, males continue to be overrepresented in the upper echelons of organizations (Morgenroth *et al.*, 2021) [1]. Studies since the 1970s have examined the reasons behind why so few women reach the apex of organizational hierarchies (Powell *et al.*, 2021) where researchers have sought to understand and/or resolve gender inequalities and unequal opportunities for women in management via theoretical and empirical research (Berkery, 2017). These studies have been conducted from a range of perspectives, chartering various aspects of women in management including the differences between men and women in decision making behaviours (Johnson and Powell, 1994; Powell, 1990), differences in leadership styles (Eagly and Johannesen-Schmidt, 2007; Collins *et al.*, 2014), role incongruity (Eagly and Karau, 2002), organizational features impacting female progression (Ellemers, 2014), gender differences in notions of career success (Evers and Sieverding, 2014), pro-male bias (Schein, 1976; Paris and Decker, 2012) and analyses of gendered power relations (Ahonen *et al.*, 2014) to name but a few. These established lines of enquiry have grown out of the demand to challenge the prevailing paradigm that might be summarized as “think manager – think male” (TMTM) (Schein, 1976), which sums up the world in which women are meant to prove themselves.

To understand how individuals in management roles are recognized and perceived, it is necessary to recognize the underlying cognitive processes. Schein's (1976) classic study was among the first study to do so and looked at the relationship between gender role stereotypes and requisite managerial characteristics. In her seminal study, Schein (1973) developed a list of 92 adjectives, divided into agentic, communal and general characteristics. The study asked research participants to specify how each of these adjectives characterized men, women and managers in general, with a resulting outcome that allowed conclusions to be drawn about gender role stereotypes and requisite managerial characteristics. This body of research has indicated that attribute ratings for men and managers are more similar than attribute ratings for women and managers (Nett *et al.*, 2021). In the intervening five decades, this research has been replicated across different cultures using both student and workplace populations (Schein, 1975, 1973; Martell *et al.*, 1998; Boyce and Herd, 2003; Booysen and Nkomo, 2010; Braun *et al.*, 2017). Yet even though the percentage of women occupying senior level roles has increase since the 1970s the TMTM paradigm phenomenon continues to prevail (Offermann and Coats, 2018), particularly among male cohorts. While studies to date provide a useful overview of gender role stereotypes and gender-biased perceptions of managerial characteristics, these studies are not directly comparable, due to differences in sampling groups, national contexts and societal changes over time, rendering it difficult to draw overall conclusions around the stability of gender role stereotypes over time. Thus, the impetus for this cohort study over a 10-year period was to examine stability and/or changes to the content of gender role stereotypes and gender biased perceptions of the managerial role among a business student population in Ireland. To do so, we surveyed a population of business studies students, from the same programmes of study in 2008–2009 and again in 2018–2019 to identify the attributes ascribed to men, women and managers and subsequently investigated the nature of any changes recorded over the 10 years. In doing so, we gain a deeper understanding of gender role stereotypes within a particular population, and unlike most studies using Schein's Descriptive Index (SDI) as their research instrument, we examine the content of these changes. From a practical perspective, this will provide future perspective employers with an insight into the cognitive processes of the younger generations of men and women and their perceptions of the characteristics necessary for the managerial role. From a theoretical perspective, we add to the existing body of knowledge

on the perceptions of the characteristics necessary for managerial roles and androgynous leadership (Powell *et al.*, 2021). The remainder of this paper is structured as follows: the literature review opens with a discussion of gender role stereotypes, using social role theory as the theoretical underpinning, which subsequently informs our two research questions. The methods, participants and procedures are then outlined. We then present the findings of our analysis, before discussing their implications from a theoretical and practical perspective. The paper concludes by outlining the limitations of this study and recommendations for future research, before drawing conclusions and closing off with concluding remarks.

## Literature review

### *Gender stereotypes*

Gender stereotyping has been defined as “the belief that a set of traits and abilities is more likely to be found among one sex than the other” (Schein, 1978, p. 259). Traditionally gender stereotypes have created perceptions around what roles should/should not be assigned to each gender in particular societies. Because of such gender stereotypes or gender role beliefs, the capacity of one gender in a particular role, for example, women in management may be questioned. In the literature, managerial or leader stereotypes are often referred to as an individual’s implicit theory of leadership (Epitropaki and Martin, 2004; Junker and Van Dick, 2014), and subsequently inform stereotypes. Through gender role stereotyping we can categorize individuals into groups based on their gender, and our perceptions will be influenced by what we know about the gender as a whole. Investigations into gender stereotypes has become an established line of enquiry, with early studies by McKee and Sherriffs (1957), Rosenkrantz *et al.* (1968), Broverman *et al.* (1972), Schein (1976, 1975, 1973) and continuing to the present with Booyesen and Nkomo (2010), Koenig *et al.* (2011), Hyde (2014), Nett *et al.* (2021) and Feenstra *et al.* (2023). Historically, men and women were expected to have or acquire gender-specific skills, gender-specific self-concepts and personality concepts to be masculine or feminine as described by that society (Barry *et al.*, 1957; Bem, 1981). As a result, men and women were expected to behave in ways which are consistent with their culturally defined gender roles within their society. This is explained further through the theoretical lens of social role theory.

### *Social role theory*

Social role theory (Eagly and Wood, 2016; Eagly and Karau, 2002) suggests that stereotypes, including those associated with gender and the managerial role, originate from observations of the distribution of women and men into social roles (Eagly and Steffen, 1984; Koenig and Eagly, 2014). All societies assign specific roles to adults based on their gender, which is then passed on in the socialization of their children and to subsequent generations. By virtue of belonging to the social categories of men or women, individuals encounter broad expectations about men and women within a particular society (Diekman and Schneider, 2010). In line with this, Eagly (1987) argues that the roles assumed by individuals are based on the society to which they belong, and as a result, men and women are expected to behave in ways which are consistent with their culturally defined gender roles. Given that men have historically occupied the social role of manager in far greater numbers than their female counterparts, particularly at the most senior managerial levels, men’s traits have been on greater display in these managerial roles compared to those of women. As a result, managerial stereotypes emphasize traits associated with men (Ellemers, 2018), and stability in the relationship between gender and managerial stereotypes may provide a partial explanation for why women remain disadvantaged in attaining and advancing within managerial ranks despite increases in their overall numbers in the workforce (Powell *et al.*, 2021).

Although social roles are thought to be deeply engrained in society, [Anglin et al. \(2022, p. 1478\)](#) propose that “these roles can and do change over time”. Social role theory predicts that the female gender role stereotype could shift given changes in the number of women in managerial roles ([Arnold and Loughlin, 2019](#)). As a result, any changes in men’s and women’s responsibilities and opportunities can shift gender-typed social roles. For example, changes in labour force participation have a direct influence on the basic distinction of role theory inside the labour force ([Hoffman, 1977; Eagly and Steffen, 1984](#)). As a result, the perceptions about women’s suitability for managerial positions should change as the number of women in managerial roles increase. Recent statistics published by the [European Commission \(2021\)](#) indicate a rise in the numbers of women filling managerial positions in Europe, which accounted for 35.3% of managerial positions. This lags behind Australia (41%) as reported by the Workplace Gender Equality Agency, and the USA (40.9%) as reported by the US Bureau of Labour Statistics. Within an Irish context, statistics published by the [CSO \(2020\)](#) indicate that women occupy 26% of all senior roles in large enterprises; 11.5% of Chief Executive Officer (CEO) roles; 28.3% of Senior Executive roles; 19.6% of Boards of Directors positions; and 7.4% of Chairperson roles. Furthermore, as [Berkery and Ryan \(2022\)](#) note, business schools are uniquely positioned to promote gender inclusivity, not only in the workplace but also in society in general. Since the early 2000s, six business schools in Ireland have achieved The Association to Advance Collegiate Schools of Business accreditation (AACSB). Under AACSB governance, business schools are required to include diversity education in the curriculum. Other initiatives such as Principles for Responsible Management Education (PRME), Women’s Empowerment Principles (WEPIs) and the Athena Swan Charter further ensure that business schools set best examples by creating a climate of inclusion and diversity throughout the institution, within the classrooms and within the curriculum.

Within the context of this study, students in Cohort 2 attended university at a time when there was a greater number of women in management, compared to those in Cohort 1, and at a time when the business school was signed up to PRME, had attained a bronze Athena Swan award and were on course for attaining AACSB accreditation. Based on the underlying premises of these accreditations, students in Cohort 2 should have had more exposure to more female professors, and a more inclusive curriculum, which coupled with an increased representation of females in senior level managerial roles, should impact on the traditional stereotypes held of the attributes ascribed to men, women and managers in general. To determine whether attitudes among business students around gender role stereotypes and requisite managerial characteristics have changed over this 10-year period, we ask the following question:

*RQ1.* Has gender typing of the managerial role changed over the 10-year period of this study?

#### *Content of gender role stereotypes*

Attributes of gender stereotypes are described across two dimensions: agentic and communal ([Nett et al., 2021](#)). Agentic attributes are more strongly associated with men and express a tendency to be assertive and controlling, such as being dominant, ambitious, independent and confident ([Eagly and Karau, 2002](#)). Communal attributes, on the other hand, are associated more with women and relate to concern for others, such as being helpful, kind, nurturing, emotionally expressive and affectionate ([Eagly and Karau, 2002](#)). Communal and agentic orientations are considered to be the qualities required for certain roles and positions; therefore, workers are seen as more agentic and less communal than

homemakers (Eagly and Steffen, 1984, 1986; Hoffman and Hurst, 1990), and full-time workers more agentic than part time workers (Eagly and Steffen, 1986). Studies indicate that agentic characteristics are usually seen to be essential for successful leadership (Duehr and Bono, 2006; Nett *et al.*, 2021), showing that high status is related to the perception of agency, rather than communal. As a result, Eagly and Johannesen-Schmidt (2007) suggest that the communal attributes ascribed to women in general put women in the pursuit of leadership roles at a disadvantage.

Recently, Eagly *et al.* (2020) found that as the roles of men and women have changed so too have consensual beliefs about their attributes. In a meta-analysis of gender stereotypes over a seven-decade period, Eagly *et al.* (2020) showed a clear growth in the ascription of communal traits to women relative to men, representing change, but a lack of change in agency, with men retaining their agency advantage, denoting stability in agency across time. In interpreting their findings, they explain that even though women have entered the workforce in greater numbers, they have been oriented towards jobs emphasizing social skills and social contributions (Eagly *et al.*, 2020). However, contrary to these findings, a study by Berkery *et al.* (2013) found that males continue to be viewed as agentic in nature, while women were viewed as more androgynous by both male and female respondents. Furthermore, work by Powell *et al.* (2021) shows that over the course of their study, spanning five decades, the descriptions of a “good manager” has a decreasing emphasis on masculinity and increasing emphasis on femininity, leading to a more androgynous description of a “good manager”. Finally, and most recently, Feenstra *et al.* (2023) found a decreased preference for masculine and increased preference for feminine leadership traits in 2020 compared to 2005. This led to them drawing the conclusion that “[. . .] strengthens the observation that the stereotype of a ‘good manager’ is becoming less gendered” (Feenstra *et al.*, 2023, p. 1). To unpack any changes recorded in RQ1, we put forward the following question:

RQ2. Have perceptions of communal and agentic traits possessed by men, women and managers changed during this study?

## Methods

### *Participants*

The data used in this study is drawn from two cohorts of undergraduate business studies students ( $n = 1,124$ ) at a large public University in the Republic of Ireland. The data in Cohort 1 was collected during the spring semester of the 2008–2009 academic year ( $n = 555$ ) and the data in Cohort 2 was collected during the spring semester of the 2018–2019 academic year ( $n = 569$ ). The surveys were administered (handed out and collected) at the end of class over a two-week period on both occasions. All survey responses were optional, and confidentiality and anonymity were assured. Surveys were eliminated if gender of respondent was not reported, survey was incomplete or non-variability was demonstrated in item ratings ( $n = 21$ ). The average age of the sample is 20.74 years, consisting of 49% male responses and 51% female responses. See Table 1 for a more detailed demographic profile of the sample.

### *Instruments used*

We use the classic TMTM paradigm to aid comparisons with past studies. In total, there were three versions of our survey, which included the original 92 adjectives listed on SDI. Participants were randomly assigned one of the three target conditions to rate – men, women and managers in general. For example, some participants were asked to report the extent to which each adjective was reflective of “managers in general”. In this instance,

Source	Cohort 1	Cohort 2
<i>Gender</i>		
Male	258 (46.5%)	287 (50.4%)
Female	297 (53.5%)	280 (49.6%)
<i>Average age*</i>		
Male	21 (min 18, max 54)	20.87 (min 18, max 49)
Female	20.93 (min 18, max 37)	20.5 (min 18, max 31)
<i>Year of study**</i>		
1st year	82	107
2nd year	209	243
4th year	264	269

**Notes:** \*The higher max age is indicative of the mature students who were undertaking an undergraduate degree; \*\*3rd year students were on scheduled work placement at the time of surveying

**Source:** Created by the authors

**Table 1.** Demographic profile of sample

participants were instructed that when making their judgements they should imagine they were about to meet the person for the first time and the only thing they knew in advance was the person was a manager. These instructions were modified for each of the target conditions. Participants rated the adjectives on a five-point scale: 1 – Not characteristic; 2 – Somewhat uncharacteristic; 3 – Neither characteristic nor uncharacteristic; 4 – Somewhat characteristic; 5 – Characteristic. Each participant responded to only one target condition.

In our sample, we have two cohorts, which are subsequently broken down by gender creating four distinct samples in this research. In interpreting our results, it is important to keep in mind that we have four samples and three target conditions; thus, in some cases, we will be presenting the results of 12 different comparisons for a single research question. Table 2 is a useful guide when following our results, where we provide a breakdown of responses by cohort and gender.

*Procedures*

Our procedures and measures matched those of Schein (1973). Data was analysed using the Statistical Package for Social Sciences, Version 26 for Windows (SPSS Inc., Chicago, IL, USA).

*Gender stereotypes.* In line with previous studies using the TMTM paradigm, intraclass correlation coefficients (ICC,  $r^2$ ) were computed using mean values of descriptive items for

Source	Cohort 1	Cohort 2	Cohort 1	Cohort 2	Total responses
	Male responses 2008–2009	Male responses 2018–2019	Female responses 2008–2009	Female responses 2018–2019	
Men in general	85	109	105	118	417
Women in general	77	107	103	88	375
Managers in general	96	71	89	76	332
Total responses	258	287	297	282	1,124

**Source:** Created by the authors

**Table 2.** Breakdown of responses by sample, gender and target condition

each group to determine the relationship between gender and requisite managerial characteristics. A high ICC (close to 1) indicates high similarity between the target conditions, for example, an ICC score of 0.98 for the ratings of men and managers represents a high degree of similarity between the ratings of men and managers. On the other hand, a low ICC (close to zero) of 0.12 for the ratings of men and managers represents a very low degree of similarity between the ratings of men and managers. In line with research conducted by [Duehr and Bono \(2006\)](#), if the difference in the correlation between two sets of conditions (e.g. managers and men in general as compared to managers and women in general) exceeds 0.29, the difference is statistically significant ( $p < 0.05$ ), assuming equal variance across samples.

*Similarities between men/women and managers.* While the ICC analysis tells us the extent to which the stereotypes of different groups overlap, they do not provide an insight into what makes men/women more similar/different to managers. To explore the content of stereotypes, an examination of the specific descriptive items was conducted by performing a factorial analysis using Duncan's Multiple Range Test. This allowed us to examine the ratings of the 92 descriptive items and compare the ratings of male students to ratings of female students for each of the three target conditions (men, women and managers). These results give us an insight into the adjectives on which men, women and managers scored highest/lowest on. Finally, we adapt the scales developed by [Duehr and Bono \(2006\)](#) to determine whether broad gender stereotypic characteristics with respect to communal and agentic traits, attributed to men, women and managers, differ by sample. In total, 14 adjectives were used, 7 communal characteristics (aware of feelings of others, creative, helpful, kind, passive, submissive and sympathetic) and 7 agentic characteristics (aggressive, ambitious, analytical ability, assertive, dominant, forceful and self-confident). The results are presented for our four samples.

## Results

These tests revealed that gender of the respondent did have an impact on the relationship between gender role stereotypes and requisite management characteristics in Cohort 1, with male's gender typing the managerial role in favour of men. Women in Cohort 1 did not gender type the managerial role. Among Cohort 2, there is evidence of changes in the extent of gender role stereotyping of the managerial role among the male cohorts studied. These results are outlined in [Table 3](#).

Taken as a whole, the results in [Table 3](#) indicate that the perceived similarity between men and managers has remained consistent across time and samples; however, the perceived similarity between women and managers has changed among the male sample as males no longer gender type the managerial role to the same extent as they did in Cohort 1. Therefore, in response to *RQ1*, our findings point to a change in pro-male bias of the managerial role among the male cohorts studied.

Given the evidence in our data that stereotypes are changing, we set about answering our second research question. Firstly, we conducted Duncan's multiple range test for unequal sample sizes to determine the significance of the difference between the mean ratings of men, women and managers, by performing a factorial analysis. The significant group effects are highlighted in [Table 4](#). An alpha level  $p < 0.001$  was used as the criterion of significance.

Further analysis revealed that over the 10-year period, the number of items on which men were more like managers decreased from 28 to 20 by male respondents and from 19 to 7 by female respondents. In contrast, the number of items on which women were rated more like managers increased from 3 to 7 by male respondents and from 3 to 19 by female respondents. Duncan's multiple range test also gave an aggregate score for the rating of each item as rated for men, women and managers. This allowed us to determine the items on

Source	df	MS	Cohort 1 F	r <sup>2</sup>	MS	Cohort 2 F	r <sup>2</sup>
Males respondents							
<i>Managers and men</i>							
Between items	91	0.662	5.85***	0.706***	0.469	6.01***	0.743***
Within items	92	0.113			0.078		
<i>Managers and women</i>							
Between items	91	0.449	1.38*	0.203*	0.483	3.28***	0.497***
Within items	92	0.325			0.147		
Females respondents							
<i>Managers and men</i>							
Between items	91	0.735	3.60***	0.577***	0.609	3.65***	0.570***
Within items	92	0.204			0.167		
<i>Managers and women</i>							
Between items	91	0.716	2.55***	0.465***	0.768	4.99***	0.663***
Within items	92	0.280			0.154		

**Notes:** \*\*\* $p < 0.001$ , \* $p < 0.05$ ; The *MS* for between items looks at the amount of variation that can be explained by accounting for differences between the descriptive items. The *MS* for within items looks at the variation within each descriptive item across the two groups (men and managers). If men and managers are rated similarly, the within item will be small compared to the between item, and the *F* statistic will be significant, as is in this case. *df* = Degrees of Freedom; *MS* = Mean; Squared  $r^2$  = Interclass correlation coefficient score (ICC)

**Source:** Created by the authors

**Table 3.** Analysis of variance of mean item ratings and intraclass coefficients by cohort and gender of respondent

Cohort 1 – male ratings	Cohort 1 – female ratings	Cohort 2 – male ratings	Cohort 2 – female ratings
46	57	70	81

**Source:** Created by the authors

**Table 4.** Number of items displaying a significant group effect

which men, women and managers scored highest. The descriptive items were examined further to determine the top 20 items rated for each of the three conditions by each gender across both samples. Among the male samples, the number of items within the top 20 rated items common to women and managers has increased from 0 items in Cohort 1 to five items in Cohort 2, while the number of items common to both men and managers reduced from ten items in Cohort 1 to nine items in Cohort 2. The number of items common across all three has remained at three. These are outlined in [Table 5](#).

Among the female samples, the number of items within the top 20 rated items common to men, women, and managers has increased from two items in Cohort 1 to six items in Cohort 2, while the number of items common to both women and managers increased from two items in Cohort 1 to ten items in Cohort 2. To further our understanding in this area, we obtained mean adjective ratings for the communal and agentic scales developed by [Duehr and Bono \(2006\)](#). These data are presented for our four samples ([Table 6](#)). Examining the mean scores across samples and time allows us to identify changing trends, enabling us to develop a more detailed narrative around the changes recorded in the ICC scores.

To determine differences in the levels of communal and agentic traits attributed to men, women, and managers between the two cohorts, a series of ANOVAs were conducted. Where the overall *F* statistic was significant, we conducted Bonferroni post hoc comparisons



**Table 5.**  
Items across the top  
20 rated items  
common to men and  
managers, women  
and managers and  
across all three  
conditions by cohort  
and gender

	Cohort 1		Cohort 2		Items common across all three conditions
	Items common to only men and managers	Items common to only women and managers	Items common to only men and managers	Items common to only women and managers	
<i>Male ratings</i>					
Competent			Leadership ability	Intelligent	Strong need for achievement Competitive Sociable
Competitive			High need for power	Understanding	
Strong need for achievement			Independent	Persistent	
Leadership ability			Ambitious	Helpful	
Independent			Skilled in business matters	Competent	
Self-reliant			Decisive		
Assertive			Desires responsibility		
Skilled in business matters			Consistent		
Logical			Self-reliant		
Self-confident					
<i>Female ratings</i>					
Competitive		Intelligent		Helpful	Leadership ability
High need for power		Persistent	High need for power	Consistent	Independent
Strong need for achievement			Intelligent	Competent	Intelligent
Authoritative			Dominant		
Self-confident			Authoritative		Persistent
Leadership ability				Well informed	Strong need for achievement
Self-reliant					Ambitious
Competent					

**Source:** Created by the authors

Conditions and scales	Male cohort 1	Male cohort 2	Female cohort 1	Female cohort 2
<i>Men</i>				
Agency	3.85 <sup>a</sup>	3.57 <sup>a</sup>	3.78	3.53
Communion	3.03	2.99	3.03 <sup>a</sup>	2.97
<i>Women</i>				
Agency	3.18 <sup>a,b</sup>	3.07 <sup>a</sup>	3.35	3.15
Communion	3.62	3.53	3.74 <sup>a,b</sup>	3.66
<i>Managers</i>				
Agency	3.86 <sup>b</sup>	3.43	4.01	3.64
Communion	3.18	3.00	3.19 <sup>b</sup>	3.13

**Notes:** <sup>a</sup>Denotes a significant difference in the mean rating of agency recorded for men and women by males in cohort 1– meaning respondents perceived men and women to possess significantly different levels of agency,  $p < 0.05$ ; <sup>b</sup>denotes a significant difference in the mean rating of agency recorded for women and managers by males in cohort 1,  $p < 0.05$

**Source:** Created by the authors

**Table 6.**  
Mean adjective ratings for agency and communion across samples

to identify samples that were statistically significant (this was conducted on the agency scale for men in Cohorts 1 and 2 and on the communal scale for men in Cohort 1 and women in Cohort 1). Bonferroni post hoc comparisons were used to adjust the family pair-wise error rate to be at or below  $p < 0.05$  for all comparisons. The results show significant differences were recorded on the agency scale by men in Cohort 1 ( $F(2,18)$ , 6.747,  $p < 0.01$ ,  $\omega^2 = 0.35$ ), indicating that ratings of women on the agency scale were significantly different to the ratings of both men and managers ( $p < 0.001$ ). Significant differences were also identified on the agency scale within the male sample in Cohort 2 ( $F(11,72)$ , 3.065,  $p < 0.01$ ,  $\omega^2 = 0.001$ ), whereby a significant difference was recorded in the mean ratings of men and women. No differences were recorded on the agency scale within the female samples. Although differences were recorded within the communal scale by men in Cohort 1 ( $F(3,33)$ , 5.034,  $p < 0.05$ ,  $\omega^2 = 0.183$ ) and women in Cohort 1 ( $F(2,33)$ , 3.694,  $p < 0.05$ ,  $\omega^2 = 0.130$ ) our Bonferroni correction did not yield significant differences between samples ( $p < 0.05$ ). Overall, these results show that both male and female cohorts in Sample 2, perceived men and women to possess the same levels of agency and communal as their managerial counterparts.

## Discussion

Studies, spanning five decades, indicate a managerial pro-male bias (Braun *et al.*, 2017), which can be summarized as the TMTM paradigm (Schein, 1976). While these studies have made a significant contribution to the literature, they are not directly comparable as they do not allow for change or stability within populations to be identified due to difference in sample sizes, cultures and societal changes over time. To overcome these challenges, against the backdrop of increased numbers of women in management, and a move towards greater levels of inclusion and diversity both in the curriculum and structures within universities, our study is based on two samples of undergraduate business students in an Irish University over a 10-year period. To identify stability or change in gender role stereotypes and requisite managerial characteristics within this population, we set about answering two research questions. In doing so, we make a significant contribution to the literature on both gendered and managerial stereotypes in three main areas: changes to gender typing of the managerial role; the debate on the difference in agentic and communal levels between men and women; and women's ability to effectively enact various styles of leadership styles.

In response to *RQ1*, we found changes to the extent of gender role stereotyping of the managerial role among the male cohorts studied, indicating that this population do not have the same pro-male gender stereotype of the managerial role, as held by their counterparts 10 years earlier. These students will enter the workforce with a more egalitarian view of the managerial role. Identifying this change, particularly among the male cohort in our study offers evidence of the impact of societal changes and the impact of a purpose driven gendered curriculum in education in the development of a young adults' cognitive representation of management. Previous research has shown that women are disproportionately affected by cognitive schema which are inherently biased towards a male manager prototype, resulting in the under representation of women in managerial positions (Braun *et al.*, 2017). The findings of this study indicate that both men and women are now perceived to have the characteristics necessary for the managerial role.

To unpack the content of these changes recorded in answering *RQ1* we set about answering *RQ2*. In response to *RQ2*, we found the reduced pro-maleness of the managerial role is attributed to the way in which women are now perceived. On examining the ratings of the 92 descriptive items, we found that the number of items on which men were rated more like managers decreased from 25 to 18 by male respondents and from 18 to 6 by female respondents. In contrast, the number of items on which women were rated more like managers increased from 3 to 7 by male respondents and from 3 to 17 by female respondents. To further our understanding in this area, we obtained mean adjective ratings for the communal traits and agency scales developed by Duehr and Bono (2006). These results indicate that the changes in the ratings of females on the agency scale by men in Cohort 2 have reduced gender stereotyping of the managerial role. Furthermore, our findings indicate that both the male and female cohorts in Sample 2, perceived men and women to possess the same levels of agentic and communal traits as their managerial counterparts. These results complement existing research reporting increases in the perceived masculinity (Twenge, 1997) and agency of women (Diekmann and Eagly, 2000; Duehr and Bono, 2006). Gender stereotypes are formed by people's assumptions of communal and agentic qualities underpinning women's and men's usual role actions. These stereotypes, in turn, can help or hinder women and men's abilities to fill and succeed in social roles that demand agentic or communal attributes. To the extent that people internalize stereotypes pertaining to their gender, they gain gender identities by which women are regarded as communal and men as agentic (Sczesny *et al.*, 2018). Social role theory (Eagly, 1987) contends that stereotypes are based on observations of the distribution of people into social roles. Although stereotypes tend to be regarded as static constructs (Hilton and Von Hippel, 1996), they may also be dynamic constructs (Diekmann and Eagly, 2000). Therefore, if the distribution of women and men into the social role of manager were to change, that is an increase in the number of female managers, the content of managerial stereotypes may change to follow (Powell *et al.*, 2021). This is in line with Anglin *et al.* (2022, p. 1478) who propose that social roles "can and do change over time". Similarly, Lord and Maher (1991), suggest that individual's detailed knowledge structures regarding leadership are altered based on day-to-day experiences, meaning, the perceptions about women's suitability for managerial positions should change as the number of women in managerial roles increase. Our findings support this claim, particularly in terms of the increased perceived levels of women's suitability for the managerial role.

Early leadership theories were based primarily on observations of male leaders (Powell *et al.*, 2021). However, in recent decades, leadership theories have emerged and place greater emphasis on the communal traits associated with women. For example, as a leadership style, transformational leadership has been associated with both feminine and masculine

traits (Eagly *et al.*, 2003; Powell *et al.*, 2021). Transformational leadership includes many communal aspects, under the theme “individualized consideration”, whereby leaders focus on developing subordinates, mentoring subordinates and focusing on individual employee needs (Eagly and Johannesen-Schmidt, 2001). The literature advocates a more suitable fit between women transformational leadership (Zhang *et al.*, 2015; Berkery *et al.*, 2013; Powell *et al.*, 2021). Kark *et al.* (2012) highlight the pressure on organizations to change towards less hierarchical structures with greater levels of flexibility, which in turn requires management to engage in collaboration, cooperation, openness, sensitivity and empathy to succeed. These changes challenge traditional conceptions of leadership, placing a greater emphasis on a more people oriented and communal approach to leadership (Avolio *et al.*, 2009). Our findings indicate that women in general are perceived to possess the same levels of agentic and communal traits as their managerial counterparts, rendering them suitable to adapt to both traditional leadership models built on agency, as well having the levels of communal traits to adapt to more transformational leadership styles.

#### *Practical implications of these findings*

Diekman *et al.* (2004) propose that as women gain greater access to managerial positions, gender differences in power within organizations will begin to erode. For this to happen women must be first perceived to be a suitable fit to the managerial role. The male students from Sample 1, who are now in the workforce for over ten years, entered their careers with the perception that women do not hold the characteristics necessary for management roles. This incongruence between the women and managerial role, coupled with deeply engrained organizational cultures, may result in women being unfairly treated and overlooked for promotions as they are seen to be lacking in managerial characteristics compared to their male counterparts. Research suggests implicit bias tends to be formed through early life experiences (Braddy *et al.*, 2020) and are resistant to change suggesting many of the male students in Cohort 1 may have entered their first role with role congruity bias (Eagly and Karau, 2002) which creates prejudice towards women as managers, and if left unchallenged or addressed will be carried with them as they progress through the organization’s hierarchy. These prejudices that arise when group stereotypes do not match cultural groups or organizational roles, and are a form of implicit or unconscious bias (Wiedman, 2020). If left unchecked for the males in Cohort 1, when in decision making recruitment roles, may result in the best potential candidate for a position being overlooked because of their gender. As a starting point, it is important that organizations acknowledge the existence of unconscious biases in the form of gender stereotyping. This may be done through organizations assessing these implicit gender biases in their operations, through perceptions surveys, language analysis, analysis of gender gaps in pay and career advancement and measure their impact on staff (ILO, 2017). Organizations should ensure that all hiring, and promotion processes extend equal opportunities to men and women. Also, work needs to be done with existing employees to uncover mental models and perceptions of leadership that form the basis of role congruity or incongruity, illuminating and developing a more egalitarian view. Finally, for those currently employed in organizations, unconscious bias training should be provided. Any such training should be complemented with capacity building so that employees are equipped with strategies that mitigate the influence of unconscious biases (ILO, 2017).

Furthermore, new generations entering the workforce are not seeking just a paycheck, they are looking for organizations with a greater work-life balance (Sánchez-Hernández *et al.*, 2019) companies that are engaged in environmental and socio-economic concerns (McCrindle, 2006) and organizations that drive diversity, equality and inclusion which is suggested to be

an even more salient concern for newer generations (Schroth, 2019). The findings of our study demonstrates that the later cohort is entering into the workplace with a more androgynous view of the managerial role, like that of Powell *et al.* (2021) and as such their expectations upon joining an organization would be that the systems and decision-making process support this view. If organizations are looking to attract and retain these new generations of recruits, they must examine their current procedures and practices in terms of their alignment and development of gender-neutral prototypes. Authentic, transparent and results focused systems that actively govern an equitable, inclusive and diverse organization are called for by this enlightened and discerning generation.

### *Limitations*

This study was subject to several limitations that suggest opportunities for future research. The data were collected from samples of Irish business studies student populations and as a result the findings may be unique to this population and should not be generalized to other populations or national cultures without additional research. Also, while the findings in this study allowed us to determine that gender role stereotypes among business students are changing, it does not give us insight into what is happening within the workforce. Further research is merited in this area to capture the perceptions of the current workforce in Ireland to determine whether gender role stereotypes of requisite managerial characteristics exist in the Irish workforce. From a quantitative perspective, SDI could be administered to determine the degree of similarity/differences that exist of the perceptions of men, women and managers in general. This data could be followed up with focus groups and interviews to yield a greater understanding of the experiences of both genders in the Irish workforces, from the perspective of securing managerial positions.

### **Conclusion**

The findings of this study are significant and encouraging for women aspiring to management as they demonstrate that the relationship between gender and managerial preconceptions have changed over the 10-year course of this study. This study indicates a significant reduction in the pro-male bias of managerial stereotypes, signaling a greater level of role congruity between women and the managerial role. They are also significant from an organizational viewpoint, as it is now the responsibility of organizations to create and foster an inclusive work environment so that women aspiring to managerial positions are given the same opportunities as their male counterparts, without bias towards their gender.

### **Note**

1. For this study, we use the terms management and leadership interchangeably, as the literature and measure we review do not allow leader or management roles to be separated. We define the leaders and managers, as individuals who are appointed into positions of authority, with responsibility for dyadic relationships within an organization.

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**Further reading**

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