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THE 'GOOD, BAD AND MERIT' ARGUMENTS IN AUSTRALIAN NEWS COVERAGE OF WORKPLACE GENDER DIVERSITY:

Big Data Topic Modelling and Qualitative Analyses of Five Years (2014 - 2019) of High-Circulation Australian Newspapers

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> *"Print media continues to be an essential part of our public communications ecosystem, and a key source of social media content, that drives messaging about workplace health and diversity."*

ACKNOWLEDGEMENTS

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EXECUTIVE SUMMARY

Research about workplace gender diversity shows that this is an issue that impacts individuals, families, communities and the economy in multiple ways. Working conditions, including diversity, play a key role in the health and workplace productivity of Victorians.

Print media continues to be an essential part of our public communications ecosystem, and a key source of social media content, that drives messaging about workplace health and diversity.

The media's role in reinforcing workplace inequalities or highlighting possibilities for change could have a large impact on community support for or rejection of workplace gender diversity, and initiatives to increase it.

In this study, we used the machine learning technique of topic modelling, as well as qualitative content analysis, on a large sample of articles published in high-circulation Australian printed media with the **objectives** to:

1. Explore the ways workplace gender diversity issues are discussed.

2. Identify the most common types of arguments for and against striving for greater workplace gender diversity.

3. Evaluate whether the year and month of publication, the type of diversity discussed and the sex of the author are related to the types of arguments for and against workplace gender diversity.

Our **findings** indicate that the analysed articles were more likely to:

• Focus on high-profile women (e.g., politicians, actors and influencers) and their life-styles, including trade-offs they had to make, rather than on discussions of the policies and practices organisations implement to manage workplace gender diversity, or on quantitative descriptions of the extent of gender inequality and lack of gender diversity.

• Focus on discussions of sexism in the media industry and in particular high-profile workplace sexual harassment cases.

• Present arguments *in favour* of workplace gender diversity initiatives rather than against them, and with a similar emphasis on justice based reasons (e.g., it mitigates injustices) and instrumental reasons (e.g., it is good for business productivity).

• Present a narrow range of reasons for and against workplace gender diversity initiatives.

• Focus on arguments in favour of increased workplace gender diversity when written by women (compared with men) and focus on risks to merit when written by men (compared with women).

We identified several **opportunities** for change. Newspapers could:

• Increase reporting on gender diversity in the workplace. With the introduction of the Gender Equality Act in Victoria, there is now a greater need for journalists who understand the substance and the techniques required to investigate and report on gender issues in the workplace. This includes reporting on a diversity of women, work and workplaces.

• Focus more on hard data analyses of both the magnitude of gender-related workplace disparities and the type and impact of workplace gender diversity policies/practices being implemented by government and organisations.

• Make sure that the voices of women, and in particular women who belong to marginalised groups, are represented both as writers and in the topics covered.

• Analyse and present a wider range of arguments regarding workplace gender diversity (e.g., reduce male-centrism in products and services delivered to the community, impact of gender diversity on the inclusion of other marginalised groups).

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INTRODUCTION

Despite major shifts in the media landscape in recent years, printed media remain an important source of news and opinion for Australians, particularly because most of the articles produced are also shared via newspapers' websites and social media accounts. Analysis of the content of news media can offer important insights into to what extent particular issues are considered newsworthy, how they are framed and the type of information and opinions that printed media outlets conveyed to Australians.

Australian employees' views on workplace gender diversity are important. Employees have wide scope to resist and prevent the success of organizational change initiatives (Kotter & Schlesinger, 2008). Similarly, managerial support for workplace gender diversity initiatives may be crucial to ensure their success (e.g., Dobbin & Kalev, 2016). Therefore, it is important to understand the type of information and opinions the population might be exposed to by the media in relation to workplace gender diversity.

Moreover, different kinds of reasons and arguments may be more or less effective in increasing support for gender diversity management initiatives, and in reducing backlash or stigmatizing of intended beneficiaries (Dover et al., 2000; Trawalter, Driskell & Davidson, 2016; Khaitan, 2015). This points to both the potentially important role for Australian news media in shaping attitudes towards gender diversity management initiatives and goals and the need to understand the wide range of arguments for or against workplace gender diversity discussed in Australian printed media.

In this report, we present a large computational analysis and a qualitative analysis of news reporting on the topic of workplace gender diversity, from five years of mainstream Australian news media.

STRIVING FOR WORKPLACE GENDER DIVERSITY IN AUSTRALIA

The Australian paid labour market remains strongly gender-segregated by industry and occupation (horizontal segregation) as well as in terms of representation in leadership positions (vertical segregation). For example, the latest figures provided by the Australian Government's Workplace Gender Equality Agency report that more than half of Australian employees (53.5%) work in industries dominated by one gender, and that men hold the majority of key management positions (69.5%) and CEO posts (82.9%) overall (WGEA, 2019).

Why should leaders, and everyday Australians, care about reducing such gender imbalances in the workplace? A broad range of answers can be given to this question (Fine, Sojo & Lawford-Smith, 2020, Dover, Kaiser & Major, 2020). One set of reasons can be broadly categorised as a **justice framing** that focuses on issues such as fairness, equality and equity. This can be contrasted with an **instrumental framing** that focuses on organisational benefits like increased financial performance and productivity (Fine & Sojo, 2019).

Conversely, opposition to efforts to increase workplace gender diversity may likewise be framed either in justice or instrumental terms. For example, it might be argued that affirmative action to promote women is a form of reverse discrimination (a justice argument), or that such initiatives lead to lowered workplace morale (an instrumental argument).

Despite the importance of the topic, and the controversy that diversity management often elicits, to date there has been no investigation of its representation in Australian news media. The current research therefore used a big data analysis (topic modelling) and qualitative content analysis of a representative sample of Australian news media articles from the 12 highest-circulation newspapers in Australia to identify how the topic of efforts to increase gender diversity in the workplace is discussed, the evaluative tone (positive or negative), and how such efforts are framed (justice versus instrumental).

In this study, we analysed the highest-circulation Australian printed media to:

1. Explore the ways workplace gender diversity issues are discussed.
2. Identify the most common types of arguments for and against striving for workplace gender diversity.
3. Evaluate whether the year and month of publication, the type of diversity discussed and the sex of the author are related to the types of arguments for and against workplace gender diversity.

"more than half of Australian employees (53.5%) work in industries dominated by one gender... men hold the majority of key management positions (69.5%) and CEO posts (82.9%) overall (WEGA, 2019)."

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> *"The media's role in reinforcing workplace inequalities or highlighting possibilities for change could have a large impact on community support for or rejection of workplace gender diversity, and initiatives to increase it."*

TOPIC MODELLING

We used topic modelling to explore the multiple ways in which workplace gender diversity is discussed in Australian high-circulation printed media.

METHOD

Selecting the newspaper articles to analyse:

VicHealth extracted from the Dow Jones' Factiva database all Australian news media articles from the 12 highest-circulation newspapers in each state and territory and nationally (see Appendix 1) published between 1 July 2014 to 31st June 2019 inclusive (five financial years). Then, we employed a Python textual search engine, Whoosh[1], to store the document collection. Using the Okapi BM25F ranking function with a Boolean search on the body of the article, we selected documents with content related to *gender* and *working* (see Appendix 2 for details of search criteria). Each document received a relevance score to the query. In this process, 254,650 articles were identified as having a relevance score higher than zero and were therefore retained for subsequent steps of analysis.

Topic Modelling Analysis:

We began with an exploratory analysis, using the unsupervised machine learning technique of topic modelling, to identify topics within this set of news articles. Topic modelling is a natural language processing technique used to extract semantically meaningful topics from
large text corpora. Simply put, topic modelling provides a probabilistic method that allows inference of the topic structure in a large set of documents by analysing how relevant words are clustered together. In this method, documents are modelled as a mix of topics, and topics are modelled as a mix of words. The objective is to identify a fixed number of topics that capture coherent themes in the document collection, represented as sets of commonly co-occurring words.

In the current study, natural language processing was used to identify the structure of topics presented in the set of 254,650 media articles described above. In the context of this collection of articles, a topic can be seen as a set of ideas about social groups, issues, policies and practices that have been the focus of the work of printed media journalist/commentators, which are relevant to work and gender.

With the 254,650 relevant news articles selected, we pre-processed the articles to prepare them for the topic modelling. Low-value stop words (e.g., "a" and "the") were removed, and linguistic variants of words were normalised through application of *lemmatization*, using the Python Natural Language ToolKit.[2] Topic models were inferred using the Gensim Latent Dirichlet Allocation (LDA) package.[3]

We trained 10 LDA models with 15, 20, 25, 30, 35, 40, 45, 50, 55 and 60 topics respectively, and then computed the coherence value of each model. The 40-topic model had the highest coherence score of all the models produced and was therefore selected for use in the subsequent analysis.

Three authors (VS, HLS and CF) independently (i) examined the list of topics, (ii) reviewed the first 30 words with highest estimated term frequency for each topic and (iii) reviewed the top 10 news articles with the highest estimated contribution to each topic, and (iv) came up with a description of a theme for each topic. After this step, the authors discussed the resulting topics they independently analysed in order to converge on the interpretation and naming of the topics.

1 https://pypi.org/project/Whoosh/

"Topic 33 was dedicated to discussions about workplace gender diversity based on surveys and statistics. This last topic was the least prevalent of all the topics related to workplace gender diversity."

Identifying trends:

We also utilized the meta-data associated with the news articles to identify any trends in relation to:

1. *Lead or single author sex*: female, male or no author reported/not possible to identify. See Appendix 3 for details on the process to identify authors' sex.

2. *Month of the year: January to December.*

3. *Financial Year:* five financial years, from 2014-2015 to 2018-2019.

We calculated inferential statistics to identify statistically significant associations between these variables and the probability an article covered a specific topic (i.e., t tests, ANOVAs, Pearson correlations and regression analyses). However, given the large volume of articles (254,650 articles in total) even small associations were significant. Therefore, we described the main trends observed in the data and only point out when associations were not significant.

KEY FINDINGS OF THE TOPIC MODELLING

The 40 topics are presented below, in Table 1, organised by the percentage of the whole corpus that is occupied by the specific topic, from the largest topic (i.e., the topic present in the largest number of articles) to the smallest topic. The topics are also clustered conceptually, based on the broader themes they appear to cover.

What do news articles talk about when they talk about workplace gender diversity?

We identified seven topics that were relevant to workplace gender diversity (Topics 1, 3, 8, 14, 15, 18, and 33, coloured in shades of green in Table 1). These topics appeared to be dealing with two different aspects of workplace gender diversity.

High-profile individuals and workplace gender inequality

The three most prevalent topics related to workplace gender diversity issues were focused on high-profile individuals. Topic 1, the largest of all, was primarily concerned with the life choices and trade-offs made by influential women, mainly from politics and the entertainment industry. Topic 3 was about discussions of sexism in the media industry. Topic 8 was dedicated to workplace sexual harassment and the court cases associated with them, such as Harvey Weinstein's and other high-profile cases of allegations of actual and attempted sexual abuse. These topics were underpinned by discussions of inequities experienced along gender lines.

Workplace gender diversity

Finally, there was a set of four topics that were more directly related to discussions of workplace gender diversity. Topic 14 was about organisational policies and practices to manage workplace gender diversity. Topic 15 focused on discussions of the relationship between gender and labour market, employment, taxation and economic growth. Topic 18 was about women and the finance industry, encompassing discussions about women's savings and superannuation as well as (high-profile) women working in finance. Finally, Topic 33 was dedicated to discussions about workplace gender diversity based on surveys and statistics. This last topic was the least prevalent of all the topics related to workplace gender diversity.

What other areas of gender equality were covered?

We identified 6 topics as related to gender equality in society and in arts and entertainment (coloured in shades of purple in Table 1).

Gender equality in society

Four topics appeared to be related to gender equality in society. Topic 6 was about women's role as the main carers for children and elderly people. Topic 7 was focused on online sexual harassment (i.e., gender harassment and unwanted sexual attention), trolling and doxing. Topic 9 was about men's violence against women, including murder. Topic 28 was about the education and vocational choices of girls and boys.

Gender in arts and entertainment

Two topics were related to gender in the arts and entertainment industry. Topic 10 discussed movies and actors' roles, in particular female and male actors' roles and awards. Topic 27 was mainly dedicated to coverage and reviews of female artists.

What other gender-related topics did we observe?

We also identified several other sets of topics that likely arose because of commonality in the words they shared with our main topics. Many of these topics appeared unrelated to workplace gender diversity (e.g., horse racing, where male/female horses might be referred to and therefore would be picked up via the search terms).

However, there were additional topics related to women's issues, such as reviews of books and stories about women being physically and socially active and about women's self-development, and medical treatments for women's health such as cancer or fertility.

There were also topics related to many contested political issues, such as the USA 2016 presidential election that discussed differences between Hillary Clinton and Donald Trump. Also, the marriage equality debate, asylum seeker and refugee issues, the war on terror and the leadership of Australian political parties and parliamentary debates all emerged as relatively frequent topics. Sport competition was also a common topic.

Table 1. Topic number, prevalence, description and group

N	%	Description	Group
1	7.3	Life style of female influencers: choices & trade-offs of high-profile women	High-profile individuals and workplace gender equality
2	5.9	Reviews of books and movies	Entertainment and Leisure
3	5.7	Low level sexism in the media industry	High-profile individuals and workplace gender equality
4	5.2	Books and stories about women being active physically and socially	Women's issues
5	4.5	Professional sports competition	Sports and hobbies
6	4.1	Women's roles as carers for children and elders	Gender equality in society
7	3.7	Online sexual harassment, trolling and doxing	Gender equality in society
8	3.7	Workplace sexual harassment allegations/court cases	High-profile individuals and workplace gender equality
9	3.6	Men's violence against women, including murder	Gender equality in society
10	3.6	Female and male movie actors and their roles.	Gender in arts and entertainment
11	3.2	Australian parliament, policy discussions and political parties and their leaders	Big political debates
12	2.9	Asylum seeker and refugee issues	Big political debates
13	2.9	The war on terror	Big political debates
14	2.9	Organisational policies and practices towards workplace gender diversity	Workplace Gender Diversity
15	2.5	Gender and labour market, employment, taxation, economic growth and policy	Workplace Gender Diversity
16	2.5	Treatment of women's health issues	Women's issues
17	2.1	Music industries and music celebrities	Entertainment and Leisure
18	2.0	Women in banking, women's superannuation and savings	Workplace Gender Diversity
19	2.0	Marriage equality bill discussion: identity politics	Big political debates
20	2.0	Church/institutional sexual abuse of children	Child protection
21	2.0	Traveling for holidays	Entertainment and Leisure
22	2.0	Featuring/marketing local products and services	Promotion pieces
23	2.0	2016 US Presidential Election: Trump vs Clinton	Big political debates
24	1.9	Horse racing: statistics on horses	Horse racing
25	1.8	Fashion industry and trends	Entertainment and Leisure
26	1.8	Advertisement for community clubs/activities and events	Promotion pieces
27	1.6	Coverage and reviews of female artists	Gender in arts and entertainment
28	1.6	The education and vocational choices of girls and boys	Gender equality in society
29	1.6	Reviews of books and book-related quizzes	Entertainment and Leisure
30	1.6	TV shows, especially variety and interview shows	Entertainment and Leisure
31	1.6	Animal life	The environment
32	1.6	Cooking recipes and restaurants/cafes recommendations	Entertainment and Leisure
33	1.5	Discussions about workplace gender inequality / diversity based on surveys / statistics	Workplace Gender Diversity
34	1.5	Advertisements and promotion pieces for real estate	Promotion pieces
35	1.2	Horse racing: reviews of competitions and horses	Horse racing
36	0.6	Horse racing: statistics or betting odds	Horse racing
37	0.5	Car design, driving, speed and crashes	Sports and hobbies
38	0.5	Sustainability and climate change issues	The environment
39	0.5	Sport competitions results/stats, especially golf and racing	Sports and hobbies
40	0.3	Medical treatments for women's fertility	Women's issues

Figure 1. Estimated average article proportion dedicated to workplace gender diversity topics by male and female authors
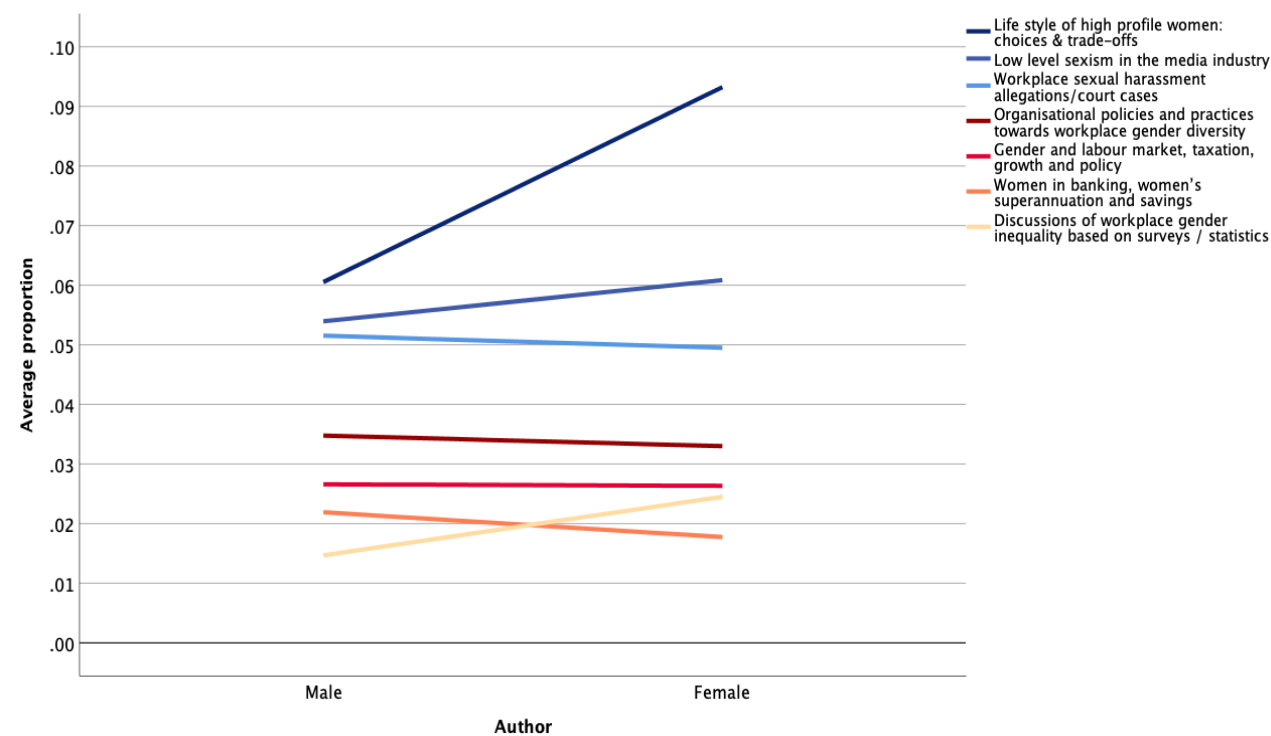
Identifying trends:

We evaluated the association between the seven topics that were most closely relevant to workplace gender diversity (coloured in shades of green in Table 1) and the sex of the author, the financial year and month of publication of the articles.

Differences in focus between female and male news writers

Across the whole corpus, there were more articles written by male authors ($n = 103,144$) than by female authors ($n = 97,706$). For many articles it was not possible to identify the author's name ($n = 42,662$) and the rest had authors whose names could not be accurately identified ($n = 11,138$). We analysed the likelihood that articles written by female (versus male) authors would dedicate more or less space to cover any of the topics related to workplace gender diversity (see Figure 1, below).

Articles written by female authors were more likely to cover the life style of high-profile women and low level sexism in the media industry. In contrast, articles written by men were more likely to cover high-profile cases of workplace sexual harassment.

When we looked at the topics most closely related to workplace gender diversity, articles written by men were more likely to cover organisational policies and practices towards workplace gender diversity as well as women in banking and women's savings and superannuation. In contrast, articles written by women were more likely to discuss workplace gender diversity using the results of surveys or statistics.

No significant difference was observed between male and female authors in their tendency to cover gender and the labour market, employment, taxation, economic growth and policy.

Figure 1. Estimated average article proportion dedicated to workplace gender diversity topics by male and female authors
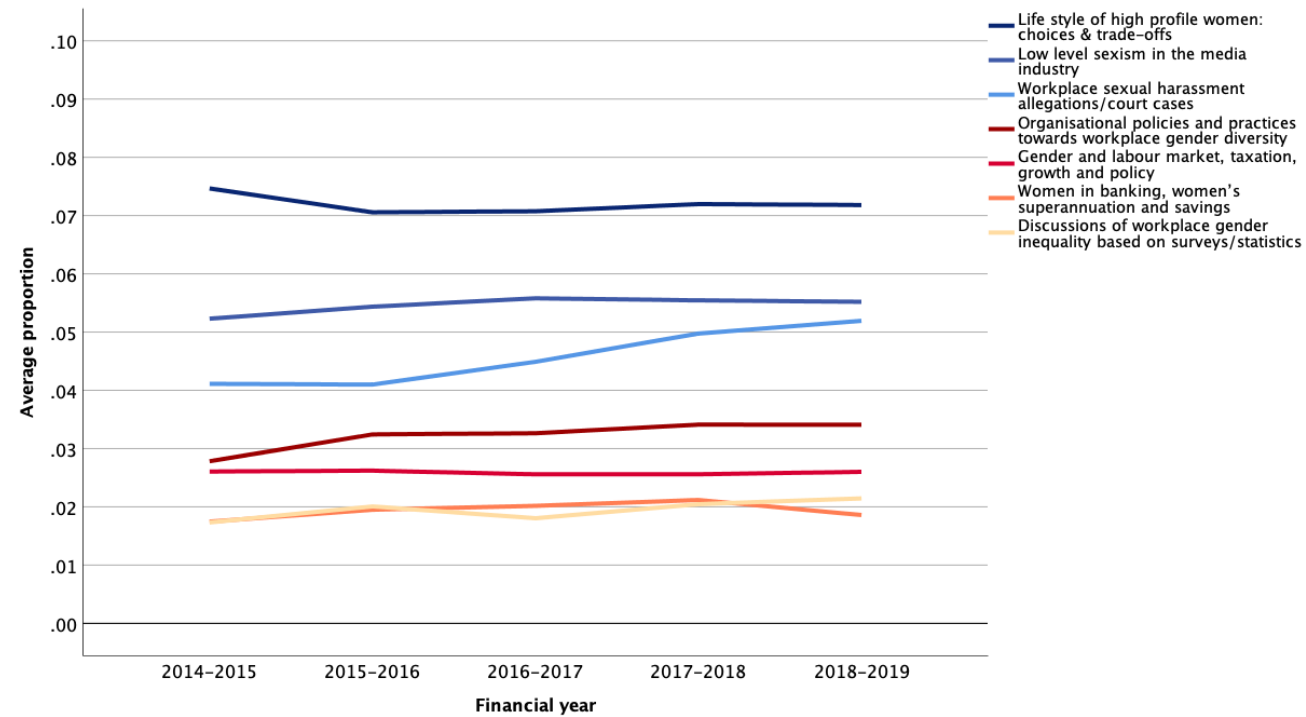
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Differences across financial years

We analysed the likelihood that the topics relating to workplace gender diversity covered in articles varied across the financial years between 2014 and 2019 (see Figure 2, below).

In general, we did not observe a strong association between financial years and coverage of topics. In particular, no significant difference was observed across financial years in the tendency of articles to cover the life style of high-profile women or gender and the labour market, employment, taxation, economic growth and policy.

There was a small upward trend in the coverage of the other five topics, with the steepest trend observed for high-profile cases of workplace sexual harassment, particularly from 2017, coinciding with the public interest in the #MeToo movement (O'Neil, Sojo, Fileborn, Scovelle, & Milner, 2018).

Differences across months

We also analysed the likelihood that the topics relating to workplace gender diversity covered in articles varied across different months (see Figure 3, below).

We did not observe a strong trend across months for articles covering the life styles of high-profile women or low level sexism in the media industry. However, articles were more likely to cover high-profile cases of workplace sexual harassment in February, particularly in 2018 and 2019. Organisational policies and practices towards workplace gender diversity as well as discussions of workplace gender diversity using the results of surveys or statistics were more common in March, which coincides with International Women's Day.

The topics of women in banking and women's savings and superannuation and of gender and the labour market, employment, taxation, economic growth and policy were more likely to be covered in March and May. These dates, respectively, coincide with International Women's Day and with the Federal Budget, when politicians, advocates and journalists would be discussing the gendered implications of the budget in printed media.

Figure 2. Estimated average article proportion dedicated to workplace gender diversity topics across financial years

Figure 3. Estimated average article proportion dedicated to workplace gender diversity topics across months

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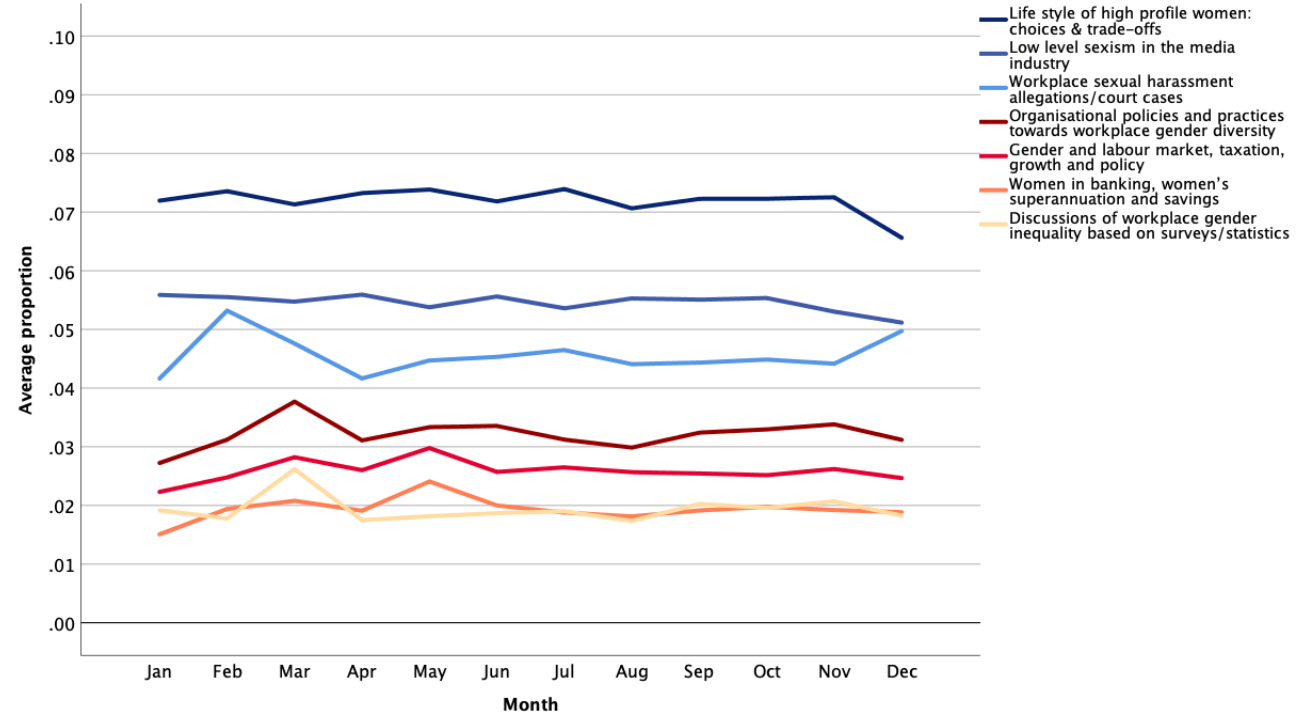
QUALITATIVE CONTENT ANALYSIS

The content analysis component of this study was designed to allow for a deeper understanding of the arguments used in high-circulation Australian newspapers in relation to efforts to increase workplace gender diversity.

METHOD

Media articles analysed:

For the content analysis study, the 254,650 news articles identified with our search query (i.e., the set of keywords related to gender and work, see Appendix 2 for full list) were then ranked by the Whoosh search engine by their relevance score. We selected the document with the highest relevance score for each one of the 12 months, of the five financial years (from 2014-2015 to 2018-2019), for each one of the 12 newspapers. In total, 720 documents were selected for human coding. This process was designed to maximise the likelihood that the articles would contain information about workplace gender diversity and that we would be evenly sampling across time and newspapers.

Coding categories for arguments:

We developed a coding schedule giving consideration to (i) a recent theoretical review of reasons to promote greater gender balance in organisations (Fine, Sojo & Lawford-Smith, 2020) and (ii) a pilot survey that solicited the views of 240 Australian workers (120 of them in managerial roles) regarding both the benefits and drawbacks of efforts to achieve, or the achievement of, reduced horizontal and vertical gender segregation in the workplace.

This 'top-down' approach, as opposed to a 'bottom-up' data-driven approach was used, as we were interested not only in which arguments were present in the news articles, but also which ones were absent. These two sources enabled a comprehensive taxonomy of possible arguments (see Figure 4) with the overarching categories of: Justice

Benefits; Organisational Benefits; Justice Downsides; Organisational Downsides ("Organisational" in this report refers to instrumental reasons relevant to organisations, as opposed to the broader community); External Benefits; External Downsides and Merit. The latter identified arguments that efforts to increase gender diversity enhance or undermine merit (Chief Executive Women/Male Champions of Change, 2016), captured by the codes Merit Enhanced and Merit Undermined, respectively. We also included a code for statements that unfairness or injustice exists in relation to gender and the workplace, but in the absence of an explicit argument for or against promoting greater gender diversity (Injustice Exists).

The coding instrument was piloted on a separate sample of news articles, discussed among some of the authors and coders, and refined across several iterations. 30% of the articles were double-coded. Inter-rater agreement for category codes was mostly moderate or substantial, while agreement was more variable for subcategory codes (Landis & Koch, 1977; see Appendix 4 for details). Our analyses therefore focus on category codes. Findings and observations relating to subcategory codes should be considered preliminary and treated with caution.

The list of code categories, subcategories and their definitions can be found in Appendix 5. Figure 4A, 4B, 4C and 4D show the list of reasons we coded. The codes are organised from the most to the least prevalent and in grey for the codes that did not appear in the articles (see prevalence tables in Appendix 6). Codes in green were also used to create an encompassing code of Benefits, those in blue were used to create an encompassing code for a Downsides.

Below, **we also provide examples of article content coded under each category.** These quotes do not necessarily represent the opinions of the article authors.

Figure 4A. Justice-related codes used in the content analysis
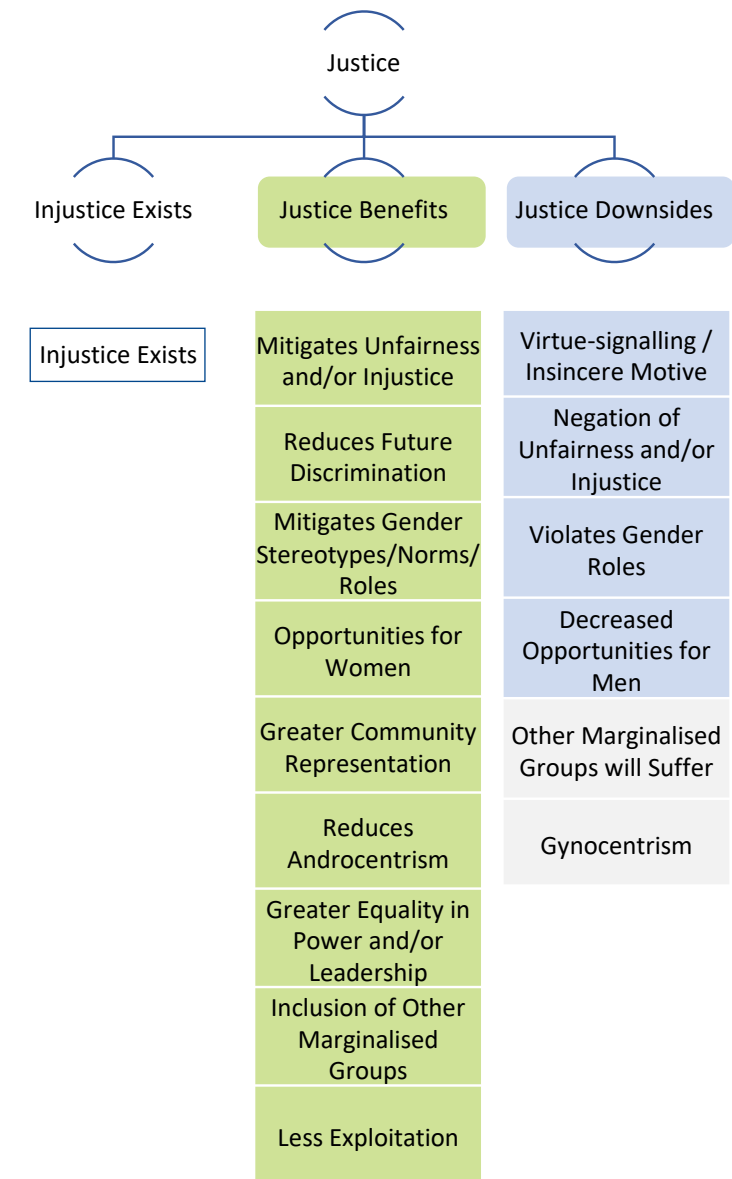
Injustice Exists:

"Women's workplace weaknesses are overplayed or punished excessively, while men's shortcomings often are ignored, according to executive coaches, management consultants and academic researchers." (Lublin, 2019)

Justice Benefits:

"Janelle Hopkins, Australia Post's group chief financial officer, says having an equal number of women in executive roles sent a clear message to women moving through the leadership pipeline that it was possible" (Tasker, 2016

Justice Downsides:

"But it wasn't long before he encountered resistance, including graffiti plastered on one of Aurizon's coal wagons, which read 'diversity = less jobs for blokes'" (Irvine, 2017)

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Figure 4B. Organisation-related codes used in the content analysis

Organisational Benefits:

"Managing pregnancy and work makes good business sense. Because complying with all workplace laws protects businesses and organisations from any risk of litigation,' she says. 'It also avoids the loss of a valuable asset — a good employee — and it avoids lost productivity and having to attract and train new staff'…" (Marinos, 2014)

Organisational Downsides:

"In January the Bill & Melinda Gates Foundation cut its paid paternity leave offering from one year to six months. Its chief human resources officer Steven Rice said the organisation found one-year was too 'disruptive' to its teams." (Brown, 2019)

Figure 4C. External environment-related codes used in the content analysis

External Outcomes – Benefits:

"As at April 2015, Tasmania was equal with the Northern Territory in having the lowest percentage of women on government boards (at 34 per cent), and its proactive strategy to achieve the 50-50 balance in five years is a real positive." (Pedley, 2016).

External Outcomes – Downsides:

"productivity and more women in the workplace and pay equality might be the holy grail but at what cost? Every family I know where both parents work fulltime is stretched to breaking unless they have grandparents nearby, a nanny, a housekeeper or the sort of mega-salaries that allow you to outsource virtually everything" (Mollard, 2016)

Figure 4D. Merit-related codes used in the content analysis .

Merit enhanced:

"Gender targets – as opposed to legislated quotas – were designed to overcome that systemic and often unconscious bias; to actually reinforce the idea of merit-based appointments." (Williams, 2018).

Merit undermined:

"Artificial diversity quotas are inherently flawed. They rig the system and everyone knows it, even if they can't say so. Human nature dictates that the players adjust their behaviour accordingly if they want to win the game. If you are not rewarded on merit, then merit is devalued." (Devine, 2018)

Article characteristics analysed:

Additionally, to identify the conditions under which certain arguments were more likely to appear, the following article characteristics were coded independently (article content coders were blind to authors' names and sex, as well as the newspaper, year and month of publication of the articles):

1. *Author Sex:* female, male or no author reported. This variable was coded using *Stanford Core NLP toolkit*, a computational natural language processing tool that supports accurate prediction[4] of the sex associated with first names.

2. *Kind of diversity being discussed:* horizontal (i.e., disparities in the representation of men and women across occupations and economic/industry sector), vertical (i.e., disparities in the representation of men and women in leadership roles or low status/pay jobs), or in general (e.g., discussions of both vertical and horizontal disparities or where no specific kind of diversity was explicitly mentioned).

3. *Month of the year:* January to December.

4. *Financial Year:* five financial years, from 2014-2015 to 2018-2019.

Despite articles being sorted by their relevance score, 252 of the 720 articles contained no relevant codes and did not discuss workplace gender diversity issues. The findings presented below are based on the remaining 468 articles.

KEY FINDINGS OF THE CONTENT ANALYSIS:

The findings presented below are based on:

1. *The prevalence of the code categories.* That is, the percentage of articles that included at least one of the codes (see Appendix 6 for prevalence tables).

2. *The association* between the code prevalence and the five article characteristics listed above (see Appendix 7 for Cramer's V coefficients computed).

1. Discussions of Benefits greatly outnumber Downsides, with an equal split between Justice and Organisational Benefits framings

Our results show that news articles discussing workplace gender diversity are predominantly positive about the efforts to increase gender diversity in the workplace, with 72% of articles discussing Benefits and only 12% raising Downsides. Among Benefits, there was a similar emphasis on Justice Benefits (45%) and Organisational Benefits (39%). Although with a much lower frequency overall, similar prevalence was found between Justice Downsides (4%) and Organisational Downsides arguments (7%).

2. Author sex matters

The above findings were not consistent across Author Sex (see Appendix 7 for Cramer's V coefficients). While 71% of articles authored by women put forward at least one argument regarding gender diversity management, only 53% of articles authored by men did so. Moreover, although fairly similar overall, female authors were more likely to talk about Benefits (women = 74% versus men = 61%), while men were more than twice as likely to raise Justice Downsides (men = 9% versus women = 3%) and Undermining Merit (men = 10% versus women = 4%).

3. Monthly changes, yet little evidence of change across financial years

March saw annual spikes in articles discussing workplace gender diversity (90% of articles selected for that month, compared to 48% to 68% for other months of the year), a finding likely attributable to International Women's Day being in March. However, there was little evidence of systematic change in discussion of arguments about workplace gender diversity over the five-year period studied.

4. Discussion of Vertical Gender Diversity is more polarised than discussion of Horizontal Gender Diversity or Diversity in General

The majority of relevant articles discussed Gender Diversity in General (51%), with fewer specific references to Horizontal Gender Diversity (30%) and Vertical Gender Diversity (19%). Compared with Horizontal Gender Diversity (i.e., gender diversity across industries or occupations), news media about Vertical Gender Diversity (i.e., gender diversity in leadership and low status jobs) more often raised issues of Downsides and Undermining Merit, but also the Injustice Exists and Enhancing Merit codes.

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4 This tool provides many different language processing functions, among which is labelling of sex, as an important step in resolution of coreference of pronouns such as "His" or "Her".

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5. Positive articles used a more restricted set of arguments

Correlations among different codes show that articles tend to be patterned along lines of focusing on either benefits or downsides, rather than discussing the full breadth of justice arguments or instrumental arguments (that is, both benefits and downsides). Such an approach is likely to leave sceptical readers unpersuaded of the benefits of efforts to increase gender diversity.

Moreover, the most common justice-related code was Injustice Exists (58%). Despite acknowledging gender bias, this code makes no explicit argument for efforts to rectify the situation.

Finally, the most commonly cited Justice Benefits were Mitigates Unfairness and/or Injustice (24%) and Reduces Future Discrimination (15%): together these appear in 59% of the articles that had Justice Benefits Codes.

While these are important arguments, they do not track a shift in the academic gender diversity management literature that broaden beyond a focus on 'fixing organisations' to also consider interrelations with social level factors such as social gender roles, legislation and the importance of representation (e.g., Arnold & Loughlin, 2019; Metz & Kumra, 2019). Codes relating to these arguments (i.e., Greater Equality in Power and/or Leadership, Mitigate Gender Stereotypes/Norms/Roles, Reduces Androcentrism and Greater Community Representation) were rarely used (each < 8% and together only appearing in 27% of the articles that had Justice Benefits codes).

6. More diversity of reasons are given for Organisational Benefits than for Justice Benefits

Within the Organisational Benefits category, three reasons were offered fairly frequently and in roughly equal proportion. These were General Business Benefits (15%), Positively Affects Company Performance and Competitive Advantage (15%) and Increases Access to Humans as a Resource (14%). In contrast, within the Justice Benefits category, there was one dominant reason offered most frequently, namely Mitigates Unfairness and/or Injustice (24%). While there was more of an appeal to Justice Benefits across the corpus of articles, there was a much more even spread across the available reasons in the Organisational Benefits category. This suggests that article authors had a wider repertoire of Organisational Benefits arguments than Justice arguments to provide in support of workplace gender diversity.

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OPPORTUNITIES

The current findings point towards several avenues that can be explored to enrich discussions about workplace gender diversity in Australian printed media.

SOMETIMES MORE IS BETTER:

Despite our dedicated search for articles discussing gender at work, the topic modelling findings showed that the topics most closely related to workplace gender diversity (e.g., workplace sexual harassment allegations/court cases, organisational policies and practices regarding workplace gender diversity, and discussion of labour market, employment, taxation, and economic growth with focus on gender differences in participation and impact of policy) were much less frequent than reviews of books and movies, books and stories about women being physically and socially active agents, and women's roles as carers for children and elderly people.

This finding is consistent with the fact that 252 articles of the 720 with the highest relevance score each month for each newspaper, based on the search terms and methodology, did not discuss workplace gender diversity and had to be excluded from the content analysis. These were articles that included gender terms and work terms, and yet did not discuss any arguments regarding workplace gender diversity. Gender diversity in the workplace is important. It encompasses issues affecting workers, their families and communities and the national economy.

Moreover, our analysis also revealed that many important reasons for workplace gender diversity were barely represented, for example, Greater Equality in Power and/or Leadership (2%); Less Exploitation (0.2%) and Reduces Androcentrism (5%). More can be done to bring to the public a wide range of discussions about workplace gender diversity.

It is indeed important to present to the public the experiences of high-profile women, and their journeys to their current positions. However, it is arguably at least as important to show the struggles, tribulations and successes of regular workers and organisations as they manage issues of workplace gender diversity.

Similarly, the least prevalent of the relevant topics was discussions of workplace gender diversity discussions grounded in data and research. This points to an opportunity for newspapers to put stronger emphasis on what research tells us about workplace gender diversity.
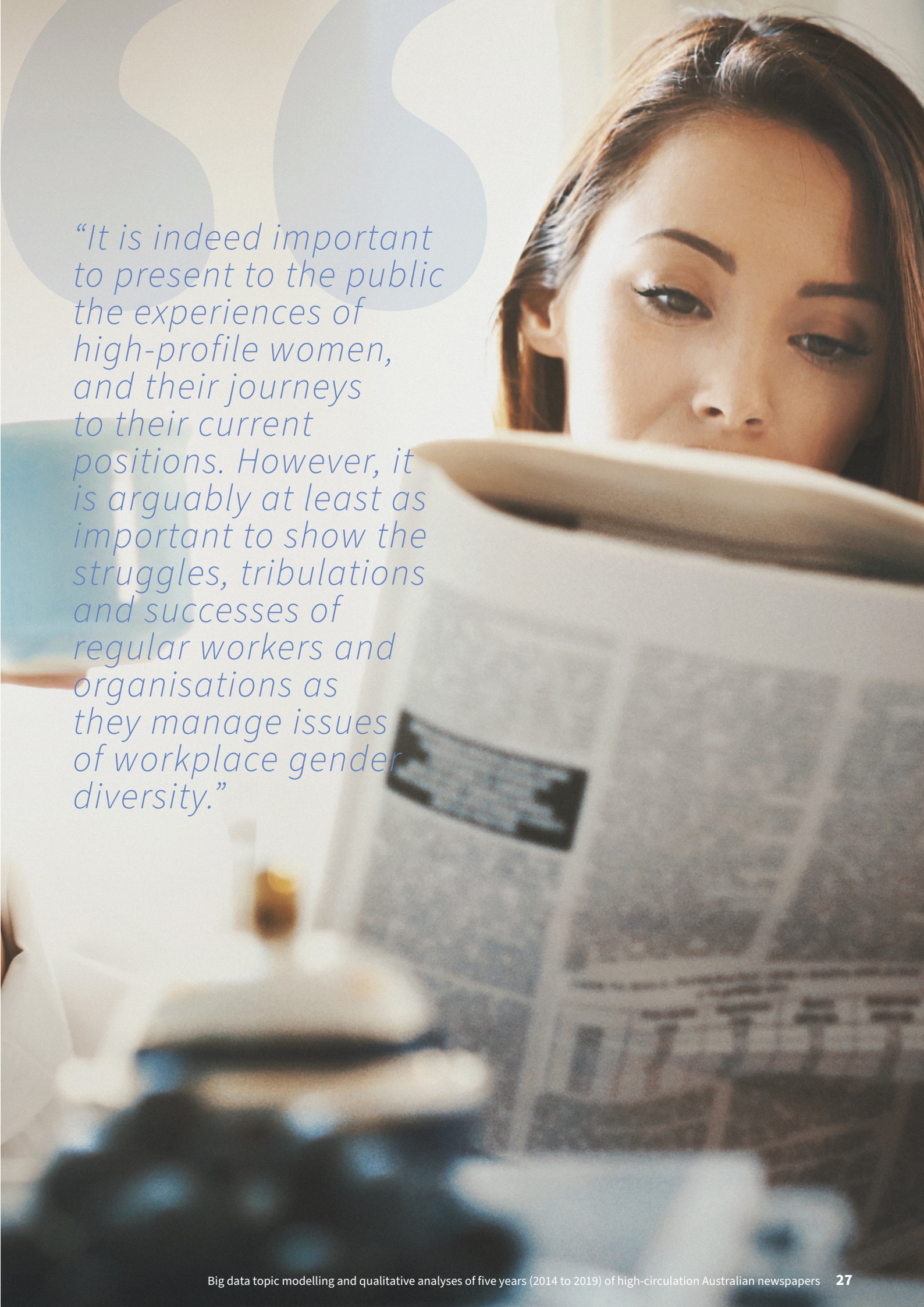
DIVERSITY OF WRITERS:

The sex of the author matters. Our topic modelling findings indicate that female authors are more likely than male authors to use survey findings and statistics to support their arguments when discussing workplace gender inequalities. We also observed that topics such as workplace sexual harassment, organisational policies and practices towards workplace gender diversity and women in banking and women's savings and superannuation to be more likely to feature in articles written by men.

Our qualitative findings indicate that women are more likely than men to write about workplace gender diversity with an emphasis on its anticipated benefits, while men are more likely than women to present arguments in relation to merit being undermined by workplace gender diversity.

This is in keeping with survey and research findings that men express less support for gender diversity measures and are less likely to think that inequality is due to discrimination (Scarborough, Lambouths & Holbrook, 2019). Similarly, a survey of 842 members of the Australian business community found that men were much more likely than women (53% versus 15%) to think that women had an equal opportunity to make it to senior levels (Sanders et al., 2001). The same survey also found a 21 percentage point gender gap in the belief that gender parity would bring financial benefits, with women more likely than men to agree. Women were well-represented as writers in our sample, and these findings point to the importance of maintaining their journalistic voices on this topic.

We observed a higher frequency of articles dealing with the life-styles of, and trade-offs made by, high-profile women (e.g., politicians, actors, influencers), which are more likely to be written by female authors. Relatively speaking, politicians, actors and influencers represent a

> *"It is indeed important to present to the public the experiences of high-profile women, and their journeys to their current positions. However, it is arguably at least as important to show the struggles, tribulations and successes of regular workers and organisations as they manage issues of workplace gender diversity."*

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"It might be necessary to also specifically strive to represent the experiences of women who belong to marginalised groups. One effective way to achieve this is by increasing the representation of women who belong to minority groups among news writers, producers and editors."

very small section of the Australian workforce. Reporting on the experiences of women in those occupations can be useful to present role models to the community, yet this reporting probably does not provide much guidance on workplace diversity issues face by most Australians. It might be necessary to also specifically strive to represent the experiences of women who belong to marginalised groups. One effective way to achieve this is by increasing the representation of women who belong to minority groups among news writers, producers and editors.

DIVERSIFYING THE ARGUMENTS:

Because our findings suggest that writers draw on a relatively narrow set of Justice Benefits arguments, it could be helpful to provide an accessible guide to the established wider justice-based reasons that support workplace gender diversity. Authors who want to support efforts to increase workplace gender diversity but stop short by only arguing that gendered injustices exist in the workplace, rather than saying something more precise, or connecting that to broader issues, have lost an opportunity to inform the reader who does not already have that knowledge or share their sense that gender inequality is an injustice (see Table 2, below).

Increased knowledge of justice-based reasons could be especially helpful in combating the discrepancy between discussion of vertical versus horizontal gender diversity. Our findings suggest that it is better recognized that women lacking access to positions of power is a justice issue, than that the domination of industries by one sex or the other can also be a justice issue.

Finally, discussion of workplace gender diversity based on survey findings and research was the least prevalent topic among those relevant to the aims of the current research. Interestingly, female authors were more likely to use study findings, surveys and statistics in their articles about workplace gender diversity, which could be seen as a mechanism to bolster their argument and prevent backlash. Given how contested issues around workplace gender diversity can be, both journalists and the community might benefit from reading arguments that are based on the best available evidence.

Table 2. Justice reasons that might be given for Workplace Gender Diversity

- More women gain access to the goods of work (e.g. building skills, making a social contribution, experiencing community).
- There is a more even distribution of power and leadership between the sexes.
- Increased gender diversity will help to combat gender-based discrimination or disadvantage, including explicit biases, policies that disproportionately impact women, unequal pay for the same work, and sexual harassment.
- With more women in the workplace, discrimination against women will be less likely to occur. There will be more women mentors, more women role-models, and more women in counter-stereotypical roles.
- More women in leadership, and in traditionally male-dominated industries, will challenge gender stereotypes, norms, and traditional sex roles in society.
- With more women in workplaces responsible for product design, the production of film and media, or directing research, there will be a reduction in 'androcentrism' – that is, outputs that centre male needs or reproduce male perspectives.
- Increasing gender balance in typically women-dominated low-paid workforces may increase their perceived legitimacy and lead to fewer cases of exploitation, and to better pay and better conditions.
- As the representation of the sexes in an industry becomes more equal, that industry will be in a better position to serve the community, which is itself mixed sex.
- Increases in gender diversity may also precipitate increases in other kinds of diversity, which will be good for other marginalised groups.

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APPENDIX

APPENDIX 1. NEWSPAPERS SELECTED

Following the Audited Media Association of Australia, we identified the newspapers (and their weekend editions) with the highest circulation in Australia's main cities and nationwide. The list of newspapers below is present alphabetically:

1. Daily Telegraph (Sydney)
2. Herald Sun + Sunday Herald Sun (Melbourne)
3. Northern Territory News (Darwin)
4. The Advertiser (Adelaide)
5. The Age + The Sunday Age (Melbourne)
6. The Australian + The Weekend Australian (Countrywide)
7. The Australian Financial Review (Countrywide)
8. The Canberra Times (ACT)
9. The Courier-Mail (Brisbane)
10. The Hobart Mercury (Hobart)
11. The Sydney Morning Herald + The Sun-Herald (Sydney)
12. The West Australian (Perth)

APPENDIX 2. SEARCH TERMS USED TO SELECT AND RANK NEWS ARTICLES BASED ON RELEVANCE

The following set of words were used in a Boolean search to identify and rank news articles based on relevance. We used two sets of words, one related to gender and another related to work. The structure of the search was such that an article had to contain at least one word from each set to be considered relevant. The most relevant articles were those containing the largest amount of relevant words from both sets.

Words related to *gender*:

woman, women, girl, girls, female, females, man, men, boy, boys, male, males, sex, gender.

Words related to *work* (to select these words we did an initial search using wildcards to identify potentially missing words, after that we converged on the list below):

boss, bosses, bossy, bossiness, business, businesses, businessfolk, businesslike, businessman, businessmen, businesswomen, businesswoman, businesspeople, career, careers, careered, careering, careerist, company, companies, corporate, corporation, corporations, corporates, corporatisation, corporatised, director, directors, employ, employs, employing, employed, employee, employees, employer, employers, employment, employability, employable, entrepreneur, entrepreneurs, entrepreneurship, enterprise, entrepreneurial, executive, executives, firm, firms, industry, industries, industrial, job, jobs, jobless, joblessness, "labour force", "labor force", leader, leaders, leadership, manager, managers, management, managerial, manageress, occupation, occupations, occupational, occupationally, organization, organizations, organisation, organisations, organisational, organizational, profession, professions, professional, professionals, professionalise, professionalism, professionally, supervise, supervises, supervised, supervising, supervisor, supervisors, supervision, supervisory, trade, trades, tradie, tradies, tradeswoman, tradesman, tradesperson, tradeswomen, tradesmen, tradespeople, unemployed, unemployment, unemployable, venture, ventures, work, works, worked, working, worker, workers, workplace, workplaces, worksite, worksites, workspace, workspaces, workaholic, workchoice, workchoices, workcover, worksafe, workforce, workload, workloads, workman, workmen, workwoman, workwomen, workwear

APPENDIX 3. IDENTIFYING AUTHORS' SEX FOR TOPIC MODELLING ANALYSIS.

To establish the sex of the author(s) of each article, we extracted and processed the meta-data associated with the articles, specifically selecting the "Byline" meta-data field. For each article, the byline was automatically processed, as follows:

1. Patterns were defined to strip extraneous information not related to authorship, including references to illustrators, photographers, and editors, from the byline.

2. The processed byline was then scanned for any female or male first name, based on matching to a comprehensive list of male and female first names that we compiled.

3. 3A heuristic strategy for assigning a sex label was applied:

   a. a.If any individual word is identified as being both a male and a female first name, the higher-ranked match was preferred, based on the relative ranking for all male and all female names in the population name lists we utilized. (For instance, "Kim" can be both a male and a female name; as it is more commonly a female name, it would be assigned female.)

   b. b.If a first name is matched, immediately followed by a second name which also matches a known first name, the second match is discarded. This is to prevent surnames that can also be used as first names from being treated as a match. (For example, "Mary Thomas" should be interpreted as a female name; "Thomas" is the surname in this context.)

   c. c.Where multiple first names are matched in the byline, if *any* female name is identified, the byline as a whole is assigned the tag "Female". If *only* male names are identified, the byline is tagged "Male". If no names are identified, the byline is tagged "Neutral".

For this analysis, we compiled two (separate) lists of over 34k female first names and over 21k male first names, based on two key sources: male/female name US Census data from 1990[5], and male/female baby names from South Australian birth registrations between 1944 and 2018[6]. Both of these resources include information related to the prevalence of each name; in the US data this was provided as a percentage of the sample, and in the South Australian data this was a raw count. Ranks were therefore used to integrate the lists; the highest rank in the two sources was adopted for names occurring in both lists.

APPENDIX 4. INTER-RATER RELIABILITY FOR CODES AND SUB-CODES

We calculated inter-rater reliability indicators for the codes and sub-codes used in the content analysis presented in this report. These estimates were based on a selection of 30% of the coded articles. Coders worked by tagging every paragraph from every news article with a code from our codebook or "NA" in cases were the paragraph was not relevant. Then we aggregated data at the level of the article to calculate inter-rater reliability

Interpreting Cohen's Kappa (and its equivalent Krippendorff's Alpha) below 0 = poor; 0.00 – 0.20 = slight; 0.21 – 0.40 = fair; 0.41 – 0.60 = moderate; 0.61 – 0.80 = substantial; 0.81 – 1.00 = almost perfect (Landis & Koch, 1977). For codes with lower frequency, the percent of agreement might be a more appropriate estimator of inter-rater reliability.

5 https://www.census.gov/topics/population/genealogy/data/1990_
   census/1990_census_namefiles.html

6 https://data.sa.gov.au/data/dataset/popular-baby-names

Table3. Indicators of Reliability for Content Analysis Codes

Code	Percent Agreed	Cohen's Kappa	Krippendorff's Alpha	Coder 1	Coder 2
Injustice Exists	**76.8**	**0.53**	**0.52**	**102**	**79**
Justice Benefits	**76.4**	**0.40**	**0.39**	**66**	**50**
Mitigates Unfairness and/or Injustice	81.8	0.23	0.23	28	32
Reduces Future Discrimination	86.8	0.15	0.15	25	12
Mitigate Gender Stereotrism /Norms/Roles	90.9	0.30	0.29	22	8
Reduces Androcentrism	95.5	0.15	0.15	10	2
Opportunities for Women	94.1	0.29	0.29	9	10
Greater Community Representation	97.7	0.53	0.53	5	6
Greater Equality in Power and/or Leadership	97.7	0.27	0.28	4	3
Inclusion of Other Marginalised Groups	99.1	0.00	0.00	2	0
Less Exploitation	99.5	0.00	0.00	1	0
Justice Downsides	**96.8**	**0.52**	**0.52**	**9**	**6**
Negation of unfairness or injustice	97.7	0.43	0.43	5	4
Virtue-signalling / Insincere Motive	98.6	0.56	0.57	3	4
Violates Gender Roles	99.1	0.00	0.00	2	0
Decreased opportunities for men	99.1	0.00	0.00	1	1
Organisational Benefits	**79.1**	**0.48**	**0.48**	**65**	**59**
General Business Benefits	90.9	0.58	0.58	27	27
Positively Affects Company Performance	90.0	0.47	0.47	19	27
Increases Access to Humans as a Resource	92.7	0.46	0.46	19	13
Positively Affects Team Performance	92.3	0.38	0.37	18	11
Positively Affects Occupational Wellbeing	92.3	0.15	0.15	12	9
Positively Affects Products & Services	90.9	0.24	0.24	11	17
Increases Organisational Reputation	94.1	0.21	0.21	11	6
Positively Affects Corporate Governance	96.4	0.41	0.41	5	9
Avoids External Regulation	99.5	0.66	0.67	1	2

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Table3. Indicators of Reliability for Content Analysis Codes (cont.)

Code	Percent Agreed	Cohen's Kappa	Krippendorff's Alpha	Coder 1	Coder 2
Organisational Downsides	**93.6**	**0.50**	**0.50**	**16**	**14**
Negatively Affects Occupational Wellbeing	96.8	0.57	0.57	11	6
General Businesses Downsides	97.7	0.28	0.28	5	2
Negatively Affects Team Performance	99.1	0.00	0.00	2	0
Negatively Affects Company Performance	98.6	0.39	0.39	2	3
Negatively Affects Products & Services	99.5	0.66	0.67	1	2
Negatively Affects Organisational Reputation	99.5	0.00	0.00	1	0
Negatively Affects Corporate Governance	99.1	0.00	0.00	0	2
Reduces Access to Humans as a Resource	97.7	0.00	-0.01	0	5
External Benefits	**78.2**	**0.31**	**0.31**	**35**	**51**
Diversity is good, no detail	79.5	0.26	0.25	24	47
Good for the economy	97.3	0.56	0.56	7	7
Good for women and families economically	96.8	0.45	0.45	7	6
Good for men economically	99.5	0.00	0.00	1	0
External Downsides	**97.3**	**0.39**	**0.39**	**3**	**7**
Bad for the economy	99.5	0.80	0.80	2	3
Diversity is bad, no detail	97.3	0.24	0.24	2	6
Bad for men economically	99.5	0.00	0.00	1	0
Merit Enhanced	**96.8**	**0.21**	**0.21**	**5**	**4**
In the Organisation (excluding boards)	97.7	-0.01	-0.01	3	2
On Boards of Directors	98.2	-0.01	-0.01	2	2
Merit Undermined	**95.5**	**0.59**	**0.59**	**15**	**11**
In the Organisation (excluding boards)	96.4	0.62	0.62	12	10
On Boards of Directors	98.6	0.39	0.39	3	2
Diversity in general	69.1	0.28	0.27	58	76
Horizontal diversity	80.0	0.36	0.34	56	26
Vertical diversity	88.2	0.50	0.50	35	25
Not about diversity	83.6	0.65	0.65	71	93

APPENDIX 5. CODES, DEFINITIONS AND EXAMPLES OF TEXT CODED

Two independent coders used the following categories to code the 720 articles in the content analysis study.

Table 4. Codes, definitions and examples of text coded

TYPE OF GENDER DIVERSITY	
Code:	Horizontal
Definition:	Discussions of gender diversity across industries or professions
Code:	Vertical
Definition:	Discussions of gender diversity in positions of power or low-status/pay jobs
Code:	General
Definition:	Discussions of gender diversity without specifying the context or including both vertical and horizontal diversity
INJUSTICE EXISTS	
Code:	Unfairness exists - NOT linked with reason to change or try
Definition:	The purpose of this code is to identify statements that acknowledge that there is some kind of justice-related issue with regards to gender diversity in the workplace, but that does not belong in one of the other JB codes because it does not link this with a reason for change. It can include unspecified references to gender diversity enhancing justice/fairness/equality, and/or a value-judgement that explicitly states the status quo of women's treatment in workplaces is unfair or discriminatory.
JUSTICE BENEFITS (JB)	
Code:	Opportunities for women
Definition:	The purpose of this code is to identify statements that link increased gender diversity, or efforts to increase gender diversity, with the benefit/reason that this means more opportunities for women to access the goods of work (other than money) (e.g. building skills, making a social contribution, and experiencing community)
Code:	Greater equality in power and/or leadership
Definition:	The purpose of this code is to identify statements that link increased gender diversity, or efforts to increase gender diversity, with the benefit/reason that this means greater gender equality in power and/or leadership.

Code:	Unfairness/injustice exists
Definition:	The purpose of this code is to identify statements that indicate that a reason to increase gender diversity, or to make efforts to increase gender diversity, is that there is currently gender-based discrimination or disadvantage in organizations. This can be discrimination against women (e.g., in perceptions of competence or commitment) or men (e.g., in requests for flexibility) and includes all three forms of discrimination (although this need not be specified). Direct discrimination is where there is a bias against women (or men). Indirect discrimination is where policies, processes or norms, that are not a business necessity, have a disproportionate impact on women (e.g., non-flexible work practices). It also includes unequal pay for similar work (e.g., nurses paid less than mechanics). Sexual harassment includes derogation/hostility on the basis of gender, sexual coercion, and/or unwanted sexual attention (Sojo, Wood, Genat, 2016).
Code:	Change will result in less disadvantage/discrimination going forward
Definition:	The purpose of this code is to identify statements that a reason / benefit of increased gender diversity or efforts to increase gender diversity is that the change in gender balance will mean that there is less gender-based discrimination and disadvantage going forward (future). For example, there will be a broader prototype for roles; there will be more senior women to mentor other women; changed gender ratios will reduce discrimination because women will seem less unusual in traditionally masculine-roles; senior women will make flexible work more accessible; women will act as role models for junior women; gender diversity will lead to more equal valuing of women's work because more men are doing it.
Code:	Help mitigate gender stereotypes/norms/roles
Definition:	The purpose of this code is to identify statements that increasing gender diversity or efforts to increase gender diversity will make a positive contribution to mitigating gender stereotypes, norms and roles in society.
Code:	Reducing androcentrism
Definition:	The purpose of this code is to identify statements that a benefit of, or reason for, increased gender diversity, or efforts to increase gender diversity, is a reduction in androcentrism in products, services, and perspectives. Androcentrism refers to a centre-ing of male perspectives, concerns and interests, and/or marginalization or devaluing of female perspectives, interests and concerns. E.g., mobile phones designed for male hands, laws based on male patterns of behaviour or interest, medical research based on male bodies, films with largely male protagonists.
Code:	Less exploitation
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will result in less exploitation of employees.
Code:	Greater legitimacy & community representation
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will give rise to greater institutional, organisational, industry or professional legitimacy and/or employees and/or leadership better representing the community that the organization, industry or profession serves.
Code:	Inclusion of other marginalised groups
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will have the additional benefit of bringing about greater inclusion of other marginalised groups

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JUSTICE DOWNSIDES

Code:	**Denial of unfairness/injustice issues – NOT linked with reason to change**
Definition:	The purpose of this code is to identify statements that deny, challenge or question whether there is any kind of justice-related issue with regards to gender diversity in the workplace, but that do not belong in one of the other JD codes because they do not link this with a reason for change. It can include statements or references to the idea that gender inequalities in the workplace have been solved/don't exist; that there is an undue emphasis on equality without taking proper account of preferences or choices; or references to increased gender diversity, or efforts to increase gender diversity, being unjust, unfair or discriminatory.
Code:	**Other marginalised groups will suffer**
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, places undue emphasis on women and will exclude, or come at the cost of, other marginalised groups
Code:	**Violates gender roles**
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, goes against natural gender roles, particularly relating to female caregiving.
Code:	**Gynocentrism**
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will lead to excessive gynocentrism in products and services (that is, centring of female's perspectives, concerns, interests, etc.)
Code:	**Virtue-signalling/insincere motive**
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, are a form of virtue-signalling / 'political correctness', rather than serving any genuine reason/benefit.
Code:	**Decreased opportunities for men**
Definition:	The purpose of this code is to identify statements that link increased gender diversity, or efforts to increase gender diversity, with decreased opportunities for men to access the goods of work (other than money) (e.g. having a job, building skills, making a social contribution, and experiencing community)

ORGANIZATIONAL BENEFITS

Code:	**Organisational benefits - unspecified**
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity will bring organizational / business benefits, but the nature of those benefits are not specified.
Code:	**Team performance – positive effects**
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will have positive effects on team performance.
Code:	**Performance & competitive advantage**
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will have positive effects on firm, organization, industry or profession performance and/or yield a competitive advantage
Code:	**Products & Services – positive effects**
Definition:	The purpose of this code is to identify statement that increased gender diversity, or efforts to increase gender diversity, will have positive effects on firm, organisation, industry or profession products and services in terms of innovation (newness, number) and/or quality - including expanding services or products to new markets.

Code:	**Employee well-being**
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity have positive effects for the occupational well-being of employees. This includes positive effects on mental and physical health; stress levels; interpersonal relationships; social climate, and / or institutional culture
Code:	**Corporate governance – positive benefits**
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, have positive effects on corporate governance; board / director decision-making, or functioning. May include reference to ethical decision-making, social responsibility.
Code:	**Increased access to human capital**
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will increase organisations' access to humans as a resource.
Code:	**Organizational reputation**
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will enhance organizational reputation; save it from a damaged reputation; reduce legal risks (i.e. employees bringing discrimination cases). Reputation can be from perspective of employees (current, potential), investors, shareholders, society in general, negative media attention, etc.
Code:	**Avoid external regulation**
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will decrease the risk of externally imposed regulation by government (e.g., quotas).

ORGANIZATIONAL DOWNSIDES

Code:	**Bad for business – unspecified**
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will be detrimental to organizations/ business, but the nature of those negative effects are not specified.
Code:	**Team performance – negative effects**
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will have negative effects on team performance.
Code:	**Performance & competitive advantage – negative effects**
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will have negative effects on firm, organization, industry or profession performance and/or result in a competitive disadvantage
Code:	**Products & services – negative effects**
Definition:	The purpose of this code is to identify statement that increased gender diversity, or efforts to increase gender diversity, will have negative effects on firm, organisation, industry or profession products and services in terms of innovation (newness, number) and/or quality. Could include contraction of markets for products.
Code:	**Occupational well-being – negative effects**
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity have negative effects for the occupational well-being of employees. This includes negative effects on mental and physical health; stress levels; interpersonal relationships; social climate, and / or institutional culture. Includes references to stigmatizing or self-stigmatizing (stereotype threat) of beneficiaries of affirmative action, or backlash against them.

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Code:	Industry wage decline
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, in previously male-dominated industries, will lead to worse wages for everyone in that industry.
Code:	Corporate governance – negative
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, have negative effects on corporate governance; board / director decision-making, or functioning. May include reference to ethical decision-making, social responsibility.
Code:	Reduces access to human capital
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will decrease or distort organisations' access to humans as a resource.
Code:	Organizational reputation – negative effects
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will damage organizational reputation (or prevent it from enhancing its reputation; increase legal risks (e.g. male employees bringing discrimination cases). Reputation can be from perspective of employees (current, potential), investors, shareholders, society in general, negative media attention, etc.

GENERAL BENEFITS

Code:	Diversity is good – reasons/benefits UNSPECIFIED
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity are good, but the reasons/benefits are not specified, or refer to the wider community (i.e., not relating to employees, organisations, etc. Includes value judgements that gender status quo is problematic but where the reason this is an issue (justice? Business impact? Economic? Etc.) is not specified.
Code:	Economic benefits
Definition:	The purpose of this code is to identify statements that increasing gender diversity will have positive effects on the economy
Code:	Good for men – economically
Definition:	The purpose of this code is to identify statements that increased gender diversity will lead to greater economic security for men
Code:	Good for women & their families – economically
Definition:	The purpose of this code is to identify statements that increased gender diversity will lead to greater economic security for women and their families.

GENERAL DOWNSIDES

Code:	Bad for economy
Definition:	The purpose of this code is to identify statements that increasing gender diversity will have negative effects on the economy
Code:	Diversity is bad – reasons/costs UNSPECIFIED
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity are bad, but the reasons/costs are not specified, or refer to the wider community (i.e., not relating to employees, organisations, etc. Includes value judgements that interfering with the gender status quo is problematic but where the reason this is an issue (justice? Business impact? Economic? Etc.) is not specified.

Code:	Bad for men – economically
Definition:	The purpose of this code is to identify statements that increased gender diversity will lead to worse economic security for men

MERIT

Code:	Merit/quality undermined – OTHER than on boards/directors
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will undermine merit or quality (e.g., that having gender quotas or hiring more women will lead to a situation in which the best person for the job is not chosen), other than on boards/directors
Code:	Merit/quality undermined – ONLY for boards/directors
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will undermine merit or quality (e.g., that having gender quotas or hiring more women will lead to a situation in which the best person for the job is not chosen), only for boards/directors
Code:	Merit/quality enhanced – OTHER than on boards/directors
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will enhance merit or quality (e.g., that having gender quotas or hiring more women will lead to a situation in which the best person for the job is more likely to be chosen), other than on boards/directors
Code:	Merit/quality enhanced – ONLY for boards/directors
Definition:	The purpose of this code is to identify statements that increased gender diversity, or efforts to increase gender diversity, will enhance merit or quality (e.g., that having gender quotas or hiring more women will lead to a situation in which the best person for the job is more likely to be chosen), only for boards/directors

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Table 5.A. Prevalence of Summary Codes

Code	Prevalence
Benefits	**72.01%**
Downsides	**12.39%**
Justice	47.44%
Organisational	42.52%

Table 5.B. Prevalence of Justice-related Codes

Code	Prevalence
Injustice Exists	**58.12%**
Justice Benefits	**44.66%**
Mitigates Unfairness and/or Injustice	23.50%
Reduces Future Discrimination	14.96%
Opportunities for Women	6.84%
Greater Community Representation	5.13%
Reduces Androcentrism	4.49%
Greater Equality in Power and/or Leadership	1.92%
Inclusion of Other Marginalised Groups	0.43%
Less Exploitation	0.21%
Justice Downsides	**4.06%**
Virtue-signalling / Insincere Motive	1.92%
Denial of Unfairness and/or Injustice	1.50%
Violates Gender Roles	0.64%
Decreased Opportunities for Men	0.64%
Other Marginalised Groups Will Suffer	0.00%
Gynocentrism	0.00%

Table 5.C. Prevalence of Organisation-related Codes

Code	Prevalence
Organisational Benefits	**39.32%**
Positively Affects Company Performance	15.17%
General Business Benefits	14.74%
Increases Access to Human Capital	13.46%
Positively Affects Products & Services	8.97%
Positively Affects Occupational Wellbeing	8.12%
Positively Affects Team Performance	7.26%
Increases Organisational Reputation	4.49%
Positively Affects Corporate Governance	2.99%
Avoids External Regulation	0.43%
Organisational Downsides	**6.62%**
Negatively Affects Occupational Wellbeing	3.85%
General Business Downsides	2.14%
Negatively Affects Company Performance	1.07%
Negatively Affects Team Performance	0.64%
Reduces Access to Human Capital	0.64%
Negatively Affects Organisational Reputation	0.43%
Negatively Affects Products & Services	0.21%
Industry Wage Decline	0.00%
Negatively Affects Corporate Governance	0.00%

Table 5.D. Prevalence of External Outcomes-related Codes

Code	Prevalence
External Benefits	**34.19%**
Benefits Unspecified	29.70%
Economic Benefits	5.98%
Economic Benefits for Women and Families	3.21%
Economic Benefits for Men	0.64%
Positively Affects Team Performance	7.26%
Increases Organisational Reputation	4.49%
Positively Affects Corporate Governance	2.99%
Avoids External Regulation	0.43%
External Downsides	**1.71%**
Downsides Unspecified	1.50%
Economic Downsides	0.64%
Economic Downsides for Men	0.21%

Table 5.E. Prevalence of Merit-related Codes

Code	Prevalence
Merit	**8.97%**
Merit Undermined	**5.13%**
In Organisation (excluding boards of directors)	**4.70%**
On Boards of Directors	**1.50%**
Merit Enhanced	**4.49%**
In Organisation (excluding boards of directors)	**3.21%**
On Boards of Directors	**1.50%**

Table 6. Cramer's V Coefficients for the Association between Codes and Article Properties

Code	Month	Year	Sex of Author	Type of Diversity
Injustice Exists	0.19	0.09	0.04	0.18*
Justice Benefits	0.16	0.05	0.07	0.09
Justice Downsides	0.17	0.16*	0.12*	0.03
Organisational Benefits	0.16	0.07	0.08	0.06
Organisational Downsides	0.23*	0.11	-0.06	0.04
Merit Undermined	0.18	0.07	-0.10*	0.18*
Merit Enhanced	0.19	0.07	-0.03	0.16*

Notes. * Indicate significant associations. Downside codes were infrequent, associations with such codes should be cautiously interpreted.

"Given how contested issues around workplace gender diversity can be, both journalists and the community might benefit from reading arguments that are based on the best available evidence."

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