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<https://doi.org/10.1057/s41599-024-02694-2>

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Press portrayals of Saudi Women's empowerment in the context of military enlistment

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Media representations are susceptible to attitudes. This study examined how the press frames the attitudes of Western, non-Western, and Saudi newspapers towards employing Saudi women in the military, a topic which has formed a rich area of interest for the press between 2018 and 2023. To that end, a corpus comprising 29 articles (10,288 words) from both local and international publications was compiled, with the purpose of conducting critical discourse analysis. The study analysed corpus concordances both quantitatively and qualitatively seeking to identify attitudes generated through language and discourse, either implicitly or explicitly. Following Van Dijk's socio-cognitive approach, the study identified keywords and co-occurrent patterns. It was found that news articles could be classified into three patterns of their representation of Saudi women empowerment: advocating, biased and neutral. This study offers a reflection on how the linguistic features of newspapers frame females and address female issues on diverse grounds.

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Introduction

The social life of Arab women, and more specifically Saudi women, has traditionally been a source of media content for interested journalists all over the world. More recently, the status of Saudi women has seen significant changes and advances during the past decade. Particularly, since Vision 2030 was introduced in 2016, Crown Prince Mohammed bin Salman has initiated a series of measures to empower Saudi women (Alotaibi 2019; Almaghlouth and Almujaivel 2023). These measures aim to increase women's participation in the economy, politics, and society. The reforms have also increased Saudi women's autonomy. For instance, granting driving rights in 2018 had a transformative effect on individual women's travel options and increased their employment opportunities (Saleh and Malibari 2021). Their economic participation has also improved their personal and professional development (Okonofua and Omonkhua 2021). Parveen (2021) reports a major shift in Saudi women's employment market participation. Karolak and Guta (2020) call it a "drastic shift" from requiring guardians' approval to participate in public spheres to being a political decision-maker. Consequently, the number of Saudi women in leadership positions has also increased.¹

Among all of the advancements made for Saudi women at all levels, enabling them to serve in the military as soldiers and officers may be the pinnacle. This role differs from speaking to the public, driving, joining a city council meeting, or sitting behind a Shura Consultative Council desk (Karolak and Guta 2020), opportunities that have all been granted already. The participation of women in the military and armed forces can be viewed in a distinctive way when compared to other occupations, as it has traditionally reinforced masculine norms (Deng et al. 2023). These occupations have historically been male-dominant (Smith and Luedtke 2005), and have been associated with hyper-masculine stereotypes that are particularly disadvantageous to women (Peters et al. 2015). It could therefore be expected that news of such an incident would elicit a range of reactions, and media coverage is expected to be commensurate with the degree of magnitude of a given news item. In Saudi Arabia, newspaper articles and editorials have indeed helped spread the vision's focus on women's empowerment (Afzal and Omar 2021). Similar responses are anticipated from international media entities that have previously depicted the status of Saudi women negatively (Altohami and Salama 2019; Sonbol 2020). According to Anctil Avoine and Lida (2016), western media, for example, tends to frame Arab women in general within a victimisation and deprivation frame, highlighting a deficiency of rights.

In this study, we use national and international media reports to gain better knowledge of the extent to which stereotypical attitudes support or oppose positive change. There are studies that examine the portrayal of Saudi women in the Western press (e.g., Bashatah 2017); however, the present study chose to focus on the press reactions towards the recently increasing empowerment opportunities for Saudi women to identify any changes in the press tone. The analysis used free online newspaper content from 2018 to 2023. This guarantees the study's representativeness because the newspaper titles selected for the corpus are available to audiences and have wide visibility and readership. This broad exposure gives electronic versions tremendous visibility, making them important as data extraction grounds. Digital extraction ensures data accuracy throughout the data transfer to the corpus programme. Also, as some local news has been classified as neutral or more polarised (Anctil Avoine and Lida 2016), using multiple news sources may clarify coverage of women's empowerment at the local level (Elyas and Aljabri 2020); hence, our research may dispel this misconception.

The primary aim of the present study is to identify the underlying attitudes that influence news reporting. Critical Discourse Analysis (CDA) proves to be a valuable tool for achieving this purpose. The study blends naturally deductive critical approaches with a more inductive corpus-based approach. That is, this study uses both quantitative and qualitative methodologies, employing corpus-based analysis and CDA methods, specifically a critical stylistic approach, to investigate key semantic macrostructures. Baker et al. (2008) argue that incorporating multiple methodologies in this field would result in a more comprehensive analysis. Each technique has the potential to reveal elements that may be overlooked by others, thus complementing one another.

To the best of the authors' knowledge, comparative research on journalism language and ideas of women's empowerment by Western, non-Western, and local writers is scarce.² This research can illuminate the value of keyword analysis and pattern identification. It emphasises the importance of comparative research on this linguistic phenomenon to approach subjects more objectively.

Within this framework, and in order to achieve the study's overall aim, we address the following research questions:

1-How are international and local press portrayals of Saudi women enlisting in the military analysed in terms of lexical features?

2- How does the investigation of lexical features frame the SA women: positively, negatively, and/or neutrally?

The paper is structured as follows: Section 2 is devoted to relevant studies in corpus linguistics and/or CDA. Section 3 describes the corpus and the methodology used for the analysis. Section 4 presents the results, and Section 5 discusses the main findings of this study and draws directions for future research. The conclusions (Section 6) restate the purpose of this study and summarise the main findings.

Literature review

Newspapers and Saudi women representations. Media have extensive influence in society and serve as a significant conduit through which individuals acquire knowledge about one another (Ross 2019). Significant emphasis has always been laid on how the media affects social transformation, particularly in relation to its role in shaping public perceptions of important topics. Shaw (1979) found that the media can effectively bring the public's attention to certain incidents and establish how much importance people attach to public concerns. Ross (2019) asserts that several studies have consistently shown that media platforms, for example, persistently propagate ethnic stereotypes, resulting in negative effects that can distort the picture of different groups. Agenda-setting theory holds that "people are aware or unaware, do pay attention to or neglect, and play up or downgrade specific features of the public scene. People tend to include or exclude from their cognitions what the media includes or excludes from their content." (Shaw 1979: 96).

The relationship between the news media and its readers is complex, as each influences the other (Baker et al. 2013; Conboy 2010; Fairclough 1989). According to Greenslade (2005), newspapers attempt to reflect their readers' opinions and attitudes, while at the same time selecting materials that support their own editorial views and excluding those opposing them, often in relation to their political affiliations. Hoewe and Peacock (2020) concluded that media affordances strongly impact political sentiment. The media shaped public discourse by choosing topics and focusing attention on specific subjects, especially in foreign countries where audiences lacked direct knowledge or experience.

Kneafsey and Regan (2019) also found that media frames social and political concerns and supports national growth regimes. Tindall et al. (2018) found that media coverage of climate change can sway public opinion by framing the problem and distorting scientific consensus. By limiting information access to audiences, media impedes the audience's knowledge of social transformation (Happer and Philo 2013).

News comprehension, as Van Dijk (1988: 141–143) sees it, is a complex process involving several cognitive stages and a range of strategies, including headline reading as a basic strategy. He interprets headline comprehension as a skill involving surface structure decoding, syntactic analysis, and the semantic interpretation of words. This process activates relevant concepts, knowledge frames, and previous models regarding the same event. In this process, new opinions are shaped about the event denoted by the headline or existing ones are activated.

Wanta et al. (2004) observed that the more negative coverage a nation receives, the more negative public opinion of that nation becomes. This indicates that the media may be responsible for producing a kind of social racism (Brewer et al. 2003; Das et al. 2009; Dixon 2007; Mastro 2009; Navarro 2010; Van Dijk 1991). According to Deuze (2002; 2008), the Western media is biased in its portrayal of others because professional journalists share common demographic characteristics, such as their levels of education and social class. Similarly, Mendes (2011: 83) states that journalists resort to 'familiar frames' or "historical archetypes and contemporary stereotypes", as stated by the European Monitoring Centre on Racism and Xenophobia in 2005 (Allen 2014), because of the job pressures that require them to write hit articles. The result, then, is stereotyped representations in media, which can be explained by norms and values alongside other complex media processes (Ross 2019).

A considerable body of critical discourse research on portrayals of Arabs or Saudi women in the news finds that they are customarily framed negatively with the use of victimisation, stereotyping, categorisation, exaggeration, and normalisation frames (e.g., Altohami and Salama 2019; Sonbol 2020). Altohami and Salama (2019) found that Saudi women were negatively represented in Davies' (2009) Corpus of Contemporary American English (COCA), as no social roles were assigned to them. Similarly, Al Maghlouth's (2021) study found negative stereotypical representations of Saudi women as victims and submissives in the American media. Sonbol (2020) relates this distorted vision to the lack of acknowledgement in Western media regarding the accomplishments of numerous Saudi women. Bashatah (2017) investigated how the British press frames Saudi women, mainly reports published between 2005 and 2013 that deal with the ban on Saudi women drivers and the participation of Saudi women in the 2012 Olympics. Her study found that the framing of the British media is generally biased and is based on stereotypes and wrong images about Saudi women. Elyas and Aljabri's (2020) study of Western media coverage of Saudi women's freedom to travel and male guardianship found bias and stereotyping. The analysis demonstrates that Western media portray Saudi women as oppressed and helpless, neglecting recent women's rights and guardianship reforms. These attempts to depict Arab women, and Saudi women in particular, are insufficient (Ancil Avoine and Lida 2016; Elyas and Aljabri 2020). If Arab women are given a deviant representation in Arab media with reference to their expected gender roles, this is represented in Western media in a victimisation framing, that Arab and Muslim women are commonly put under submission (Ancil Avoine and Lida 2016; Sjoberg and Gentry 2007).

Baker et al. (2013) emphasise that the press does not simply reflect reality but in fact uses its power to construct an ideological

version of it. The danger of such a twisted depiction is that it may discourage exploration and analysis. The negative image of Muslims and Arabs in American and European media has attracted even more attention since September 11, 2001 (Allen 2010; Petley and Richardson 2011; Schrag and Javidi 1997; Wilkins 2004). Therefore, according to Ross (2019), research into ways to counteract stereotypes and promote more positive media portrayals is essential.

A number of studies on newspaper representations implemented a critical stylistic approach as a framework of analysis. Coffey (2013) published 'Innocent Until Proven Filthy: A Corpus-Based Critical Stylistic Analysis of Representations of Men in Women's Magazines,' in which corpus linguistic methodologies are used to conduct a critical stylistic analysis of male representations in a corpus of women's magazines. This study shows how texts construct the ideologies of masculinity that constitute the magazines' performances of masculinity for a female audience by focusing on four textual-conceptual functions of the text: naming and describing, equating and contrasting, representing processes, events, states, and assuming and implying.

Corpus-based CDA and studying newspapers attitudes. Media has been a source of data for many researchers employing corpus-based CDA. Pei et al. (2022) have shown that two media (American and Chinese media) share a positive transformation of the image-building of hackers in the 21st century but have different ways of framing them. Their study provides insights into how hacker discourse is represented in the media and how national identities are constructed in the media representations of hackers. Another study by Li and Zhang (2021) combined both CDA and corpus linguistics for the purpose of identifying media representations of Islam and Muslims in the American media, drawing upon an analysis of articles in the New York Times over a 17-year period (from January 1, 2000, to December 31, 2016). The findings revealed that the New York Times' representations of Islam and Muslims are negative and stereotypical. The stereotypes contribute to people's prejudice, such as Islamophobia from the 'us' group and fear of the 'them' group, but do not support a strong conclusion of discrimination.

There have been many studies on women, but few on Saudi women and their representation in international online media, particularly on the topic of Saudi women joining the army for the first time and how the press has covered this news. Thus, this study will examine 29 (local and foreign) news site articles highlighting Saudi women's achievements and contributions.

In the present study, the researchers investigated the lexical features of what was published in the press about Saudi women enlisting in the army in local and international newspapers within the Sociocognitive Approach (SCA, hereafter). The focus of analysis was unpacking the semantic macrostructures associated with specific lexical features that could aid in dismantling uncovering attitudes, as reflected in these reports. The extent to which the news writers' lexical choices lead to specific patterns of portrayal and framing was assessed. The next subsection summarises the theoretical underpinnings of this study.

The present study utilises the CDA framework for discourse analysis as it offers more than just textual and linguistic analysis. CDA goes beyond the analysis of text to examine the historical, economic, political, social, and cultural context that surrounds the process of text production and consumption. This comprehensive, multi-layered analysis framework offers a better understanding of the subtle attitudes of the news outlets and accounts for the potential differences between them in representing Saudi women and depicting issues surrounding women in Saudi Arabia.

Theoretical framework: sociocognitive approach (SCA). CDA goes back to a critical theory of language that regards language use as a form of social practice. All social practices are tied to specific historical contexts and serve to reproduce and contest existing social relationships. In this article, for example, the researchers seek to position the texts that deal with the recruitment of Saudi women in the Saudi army. The reception of the news, as presented in the selected news excerpts, is intended to serve as a guide and to answer the questions that relate news discourse to power relations. It is based on Van Dijk's SCA, which is a triangulation of discourse, society, and cognition (Van Dijk 1988, 1991, 1993, 2013). Discourse can only affect social interaction and social structures through the same cognitive interface of mental models, knowledge, attitudes, and ideologies (Van Dijk 2013). Van Dijk's SCA aims to highlight socially shared attitudes and ideologies as embedded in the news published in the selected discourse-level news agency.

Corpus-based studies typically use corpus data to explore a theory or hypothesis, aiming to validate it, refute it, or refine it. The definition of corpus linguistics as a method underpins this approach. It is thus claimed that the corpus itself embodies a theory of language (Tognini-Bonelli 2001: 84-5). However, McEnery and Hardie (2011) refuse to consider the corpus per se as the source of the theory or the binary distinction of the corpus, either as a method or as the sole source of hypotheses. The corpus toolkit is beneficial to discourse and pattern revealing and is considered a powerful tool for uncovering hidden patterns of language use. In this case, corpus linguistics is used as a method to explore Van Dijk's theory and to explore the attitudes, cognition and representations of the women joining the army in the press.

Methodology

This study combines a corpus-based linguistic method, which is increasingly being used in applied linguistics (McIntyre and Walker 2019), and CDA. The quantitative identification of collocations can facilitate the qualitative detection of recurring patterns for the representation of groups under focus (Baker et al. 2008). Regarding the quantitative method, the corpus was built to study lexical features of language through searching for highly frequent patterns (i.e., recurrent clusters of certain sets of lexical choices). The software AntConc by Anthony (2020) was used to investigate lexical clusters, collocates, and their concordances to identify the dominant semantic macrostructures of the social actors involved in shaping concepts concerning Saudi women joining the army. The integrated concordancer allows computer-aided careful inspection of each word form for qualitative analysis. Concordancers also pinpoint the text where the search term occurs (listing the file name), which can be useful for the study of the distribution of a lexical unit or for identifying a particular set of texts for closer analysis. By this means, it is possible to meaningfully combine quantitative and qualitative analysis, using frequency and keyness analysis. The results retrieved from the software are followed up by qualitative text analysis. It should be noted that the concordancer significantly aids the manual and qualitative analysis of the data: the software automatically provides all instances for particular search terms and further information on such terms (Anthony et al. 2012; Bednarek and Carr 2020).

Technically speaking, identifying keywords is one of the crucial techniques in corpus linguistics (Scott 1997), as Cited in (Brezina 2018). Keywords are words that are considerably more frequent in one corpus (the node corpus, the target corpus, or the corpus of interest) than in another corpus (reference corpus). In other words, 'keyword' is a relative term depending on the differences

in lexical frequencies between the two corpora in question. In this study, the target corpus is the articles talking about Saudi women recruitment into the army, while the reference corpus, as selected here, is a sub-category within the Brown Corpus, i.e., Am06 (PRESS REPORTAGE), which has been downloaded from Laurence Anthony's website. The comparison is based on a statistical measure to identify words that are used either more often or less often in the node corpus when compared to the reference corpus. In practice, this is done automatically by the corpus software. One more thing to mention about the reference corpus is that the comparison becomes more reliable and focused if it is similar to the corpus of interest.

Because the method is mainly qualitative, CDA helps connect all the puzzle fragments within one final frame to understand the semantic macrostructure, an important notion in discourse analysis introduced by van Dijk (1988, 1991, 1993). This term refers to the overall thematic meaning or structure of a discourse. The notion of a semantic macrostructure serves to create a sense of global semantic cohesion in a text or discourse (Van Dijk 2013). At this level of analysis, thematic structures can be identified by tracing the frequent lexical cluster patterns of the keywords denoting social actors and their semantic references in their concordance lines.

Data collection. Generating a corpus from dozens of news articles (or blog entries) published in digital formats can be achieved with relative ease by collecting articles from online news sources as data pertaining to the topic of focus. For this, specific criteria for data inclusion should be established. Because the focus of this study falls on news media discourse, the data were collected from newspaper articles in online media, covering news articles published on some platforms of news media, which are readily available online thanks to the nature of the news sector. In their paper (Rautiainen 2021), the researchers cited their use of digitised content to facilitate the use of integrated approaches. Integrated approaches are needed to successfully exploit the full potential of digitised sources. Therefore, the current study elaborates on research steps and tasks where all fields come together and eventually propose an integrated digital hermeneutics workflow for research work on digital cultural heritage. Considering the need for local news as part of the data, the selected local news source in our study should be national but represent Saudi Arabia internationally, such as Saudi newspapers or agencies that publish their articles in English. No instances outside the data scope of news media were included, meaning that social media postings were not included unless an article contained them. The articles included in this study were collected by searching news agencies for the targeted articles using the search keyword 'recruiting women or females in the army', and the inclusion was limited to articles dealing with the intended decision to recruit Saudi women in the military and the actual recruitment. The choice of each news agency's articles was made to fulfill the study's overarching aim. The researchers included all news articles pertaining to the topic of Saudi women in the military and army forces, without any prior categorization for the news agencies. This was accomplished by utilising keyword-based search criteria. Subsequently, the outcomes were subjected to filtration based on the geographical location of news agencies' headquarters, their affiliations, or the countries with which they are associated. The initial search returned 29 results for all news in the period February 26, 2018, to January 12, 2023. The obtained data for this study constitutes a specifically constructed, specialised corpus containing over 10288 words. Noticeably, some news agencies have just copied the news as it is in other journals without even paraphrasing it. That is why, in the appendices, only

Table 1 Total number and names of texts under study from 21.2.2018 to 9.3.2023.

Name of the Newspaper	Number of Texts in Initial Search	Date of Publication	Country
Al Arabiya	2 articles	21.2.2021	Saudi Arabia
Arabnews	1 article	3.10.2019	Saudi Arabia
PIME -Asia News	1 article	23.2.2021	Italy
BBC	1 article	26.2.2018	UK
Bloomberg	2 articles	23.2.2021/ 21.2.2021	USA/Canada
Business Today	1 article	22.2.2021	India
Daily Mail	1 article	22.2.2021	UK
DNA	1 article	22.2.2021	India
Flair	1 article	23.2.2021	United Arab Emirates
Gulf News	1 article	21.2.2021	United Arab Emirates
Independent	1 article	22.2.2018	UK
Josh	1 article	23.2.2021	India
Khaama Press	1 article	23.2.2021	Afghanistan
LAD BIBLE	1 article	22.2.2021	UK
MINT	1 article	16.2.2021	India
The Business Standard	1 article	23.2.2021	Bangladesh
The National News	1 article	19.10.2018	United Arab Emirates
The Times of Oman	1 article	28.2.2021	Oman
Gulf Insider	1 article	21.2.2021	Bahrain
Gulf News Business	1 article	21.2.2021	United Arab Emirates
The Times	1 article	23.2.2021	UK
The Telegraph	1 article	21.2.2021	UK
The National News	1 article	5.3.2022	United Arab Emirates
Security Women	1 article	31.3.2022	UK
Unipath Magazine	1 article	15.12.2022	Unites States
Alarabya.net	1 article	3.1.2023	Saudi Arabia
Saudi Gazette	1 article	9.3.2023	Saudi Arabia
Alarabya News	1 article	12.1.2023	Saudi Arabia

25 links are used, while 29 news reports are mentioned in the table. These news agencies, for instance *Security Women*, *Unipath*, *Alarabya.net*, and *The Australian*, have the same news repeated.

It should be noted that some newspapers published the news of the actual military recruitment of Saudi women either on the same day it was announced inside Saudi Arabia or one or two days later. Interestingly, the *Daily Telegraph* published the news on February 21, 2021, together with *Gulf Insider*, *Gulf News Business*, *Gulf News*, and *Alarabya* (Table 1), which ensured that the topic has been under focus at regional and international levels.

Data analysis

The analyses of the data collected from the news articles (node) are selected with care to obtain quantitative and qualitative concordance lines, using van Dijk’s SCA, and to provide a comprehensive analysis of the journalistic representations of Saudi women, as seen in Fig. 1.

Quantitative analysis. The researchers adopted a top-down, corpus-based linguistic approach that moved from key semantic domains to lexical items and then to their collocates. First, we detected the key semantic domain of the genre using the corpus

tool AntConc. Next, we analysed these semantic domains to foreground frequent lexical items in each domain and explored the context of those items through collocational networks. Finally, we investigated frequent items and the corresponding concordance lines to identify the common stylistic aspects regarding stories of Saudi women joining the military.

It was found that the phrase ‘Saudi Women’ is the most frequent key word in context (KWIC) in the news stories. The KWIC obtained is the core of the study, and their recurrence helps identify how these online newspapers dealt with Saudi women joining the military. This step provided the answer to the first part of the study question.

The extended context of each concordance line is explored to determine its thematic focus in the propagation of views and stances on Saudi women between 2018 and 2023. These keywords are thematically clustered, taking into account that some keywords feature more than one thematic focus. In all, eight thematic signals were explored to investigate the theme of allowing Saudi women to join the military and to explore how attitudinal structures and power relations are organised and projected in the collected data, i.e., local/Saudi, Western, Arabian Gulf, and Asian journalistic discourses. Figure 2 shows the frequency of concordance lines incorporating the following keywords, as displayed below.

Thematic signals. The following keywords have been identified:

1. Female
2. Saudi Women
3. Saudi
4. Government
5. Mission
6. Right
7. Defense
8. Campaign

As explained in the Introduction, Saudi Arabia has recently experienced significant changes, that are closely observed by other countries. The news that Saudi women would be recruited to join the army was received differently by newspapers in the different countries selected for this study. Some newspapers insist that these policies are generally ascribed to the conservative atmosphere inspired by strict religious, tribal, and cultural values. This theme of gender discrimination is a common subject in the previously reviewed studies.

The context of the keywords marking the theme of the study shows the use of expressions with negative connotations, e.g., ‘push,’ ‘allowed to join,’ ‘right,’ ‘mission,’ and ‘campaign.’ The figures from the search process are referentially coherent since they represent some features of inequality for Saudi women displayed by the articles discussed in this study. There is a closer focus on the status of women before the ban than on it after the decision. This news is often attached to other issues that had previously been a subject of scrutiny, such as gender segregation in the workplace, the inability to travel without permission, restrictions on appearance in public, a ban on participation in elections, a ban on pursuing higher education, a ban on going to movie theatres, inequality in job opportunities, restrictions on marrying a non-Saudi, and a lack of political representation. All these notions can help understand the mental model that governs the ideological stance of media producers who seek to highlight unequal gender-based power relations in Saudi Arabia.

The concordance lines shown in Figs. 3–7 make it clear that *Gulf News* does not attach this news to any background, such as restrictions on marrying non-Saudi spouses, which is very obvious with the rest of the newspapers, namely, *The Times* and *DNA*. *DNA* quotes *The Times* and *Flair*, but not *Gulf News*.

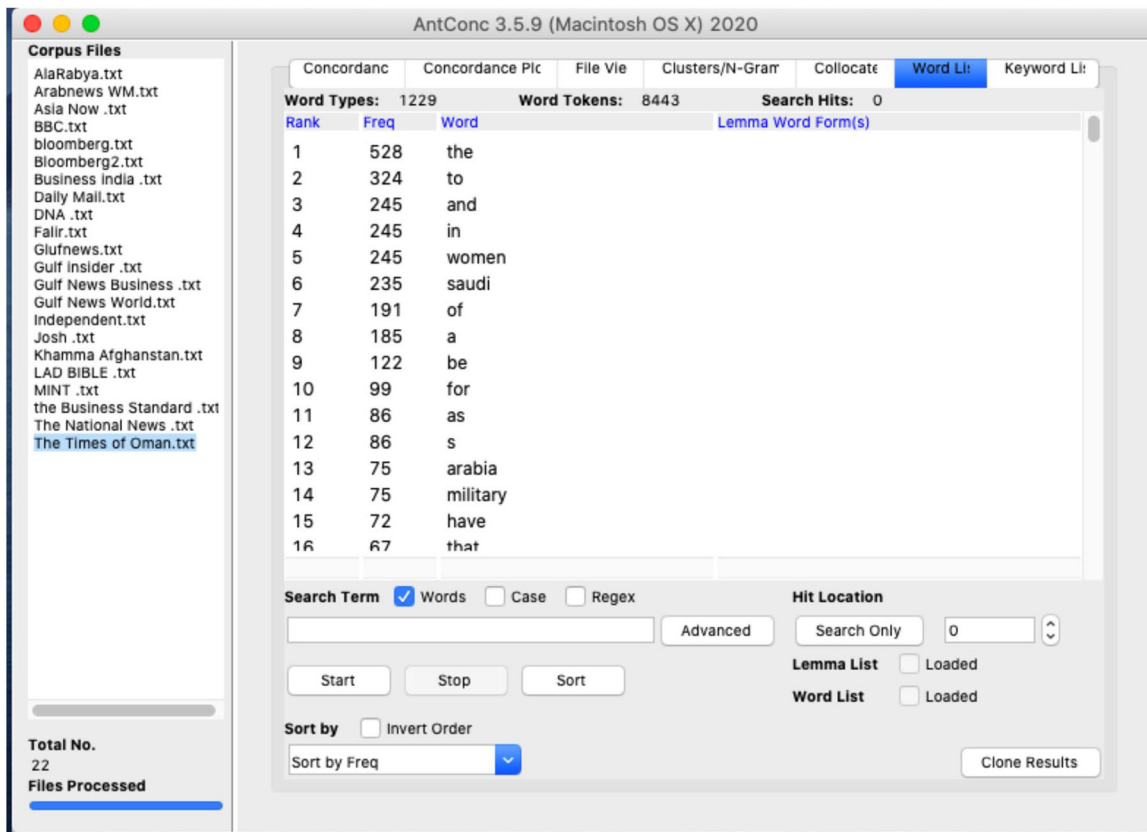


Fig. 1 Number of word tokens and word types in the news texts.

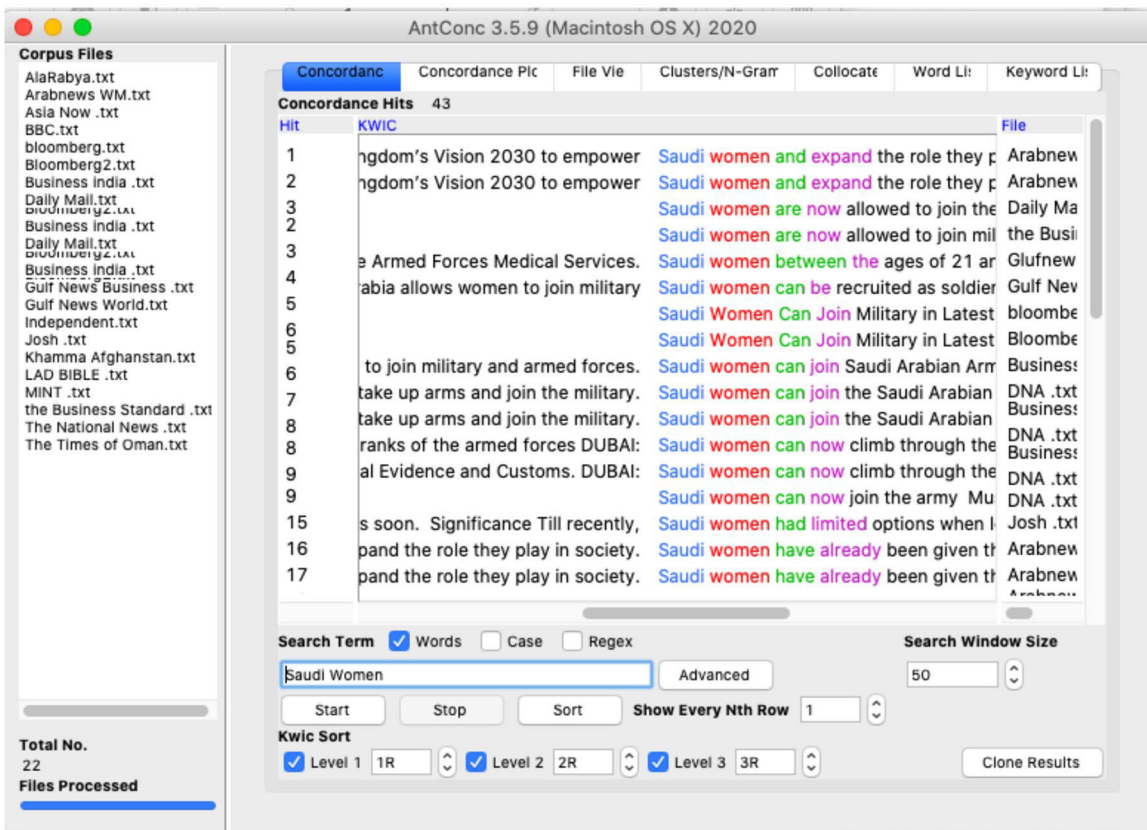


Fig. 2 Frequency of the phrase 'Saudi Women' in the news concordance tool.

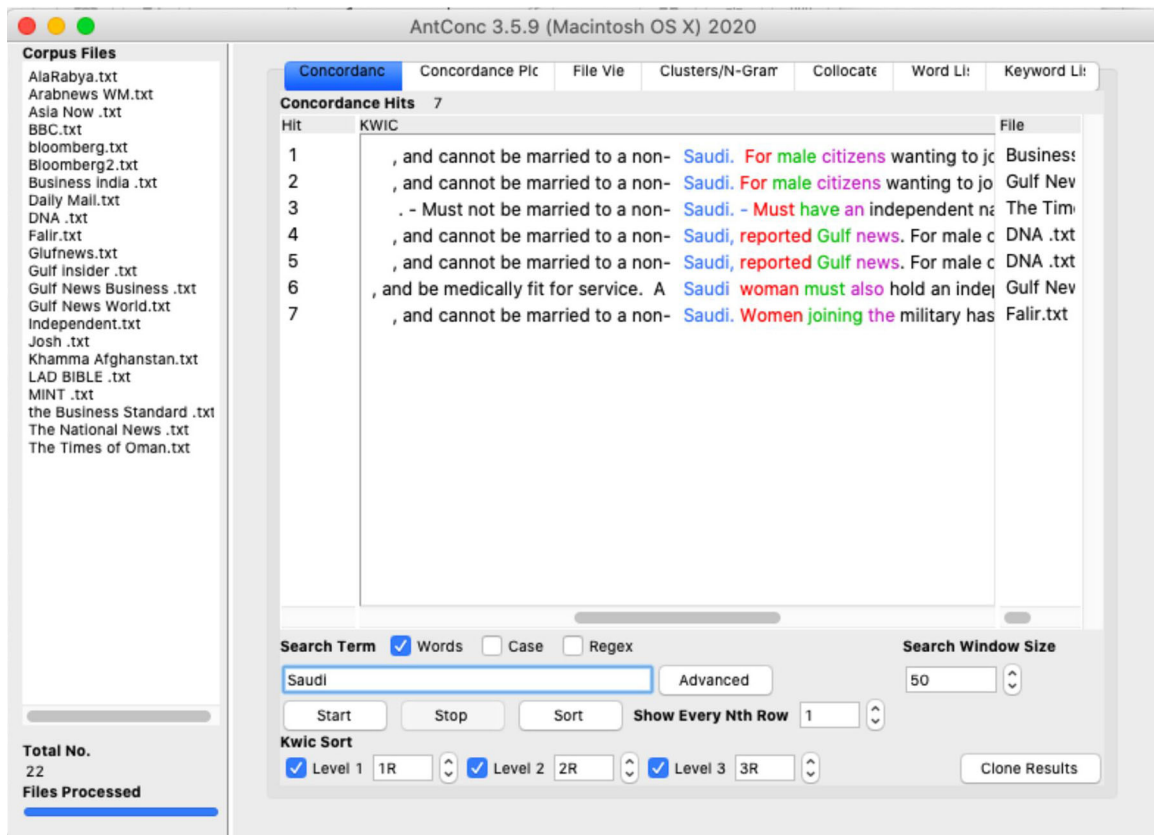


Fig. 3 Frequency of the terms 'Saudi' in the news concordance tool.

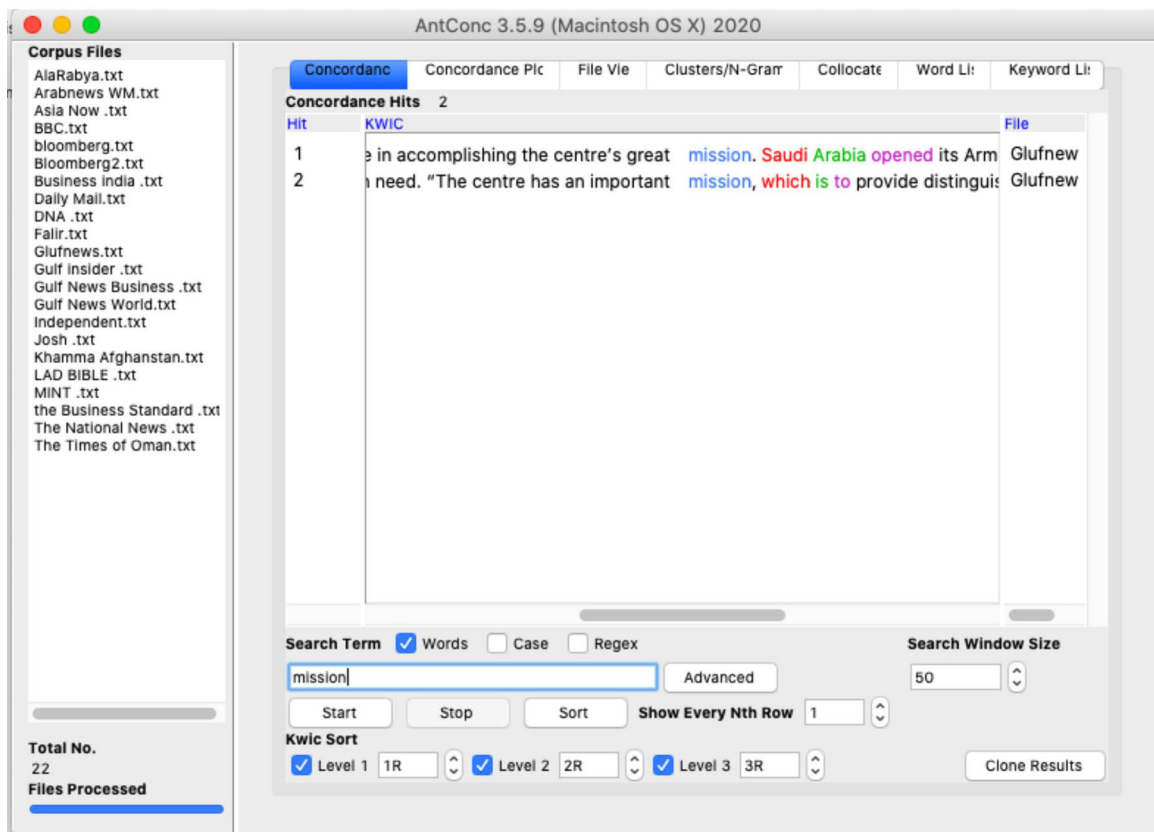


Fig. 4 Frequency of the term 'mission' in the news concordance tool.

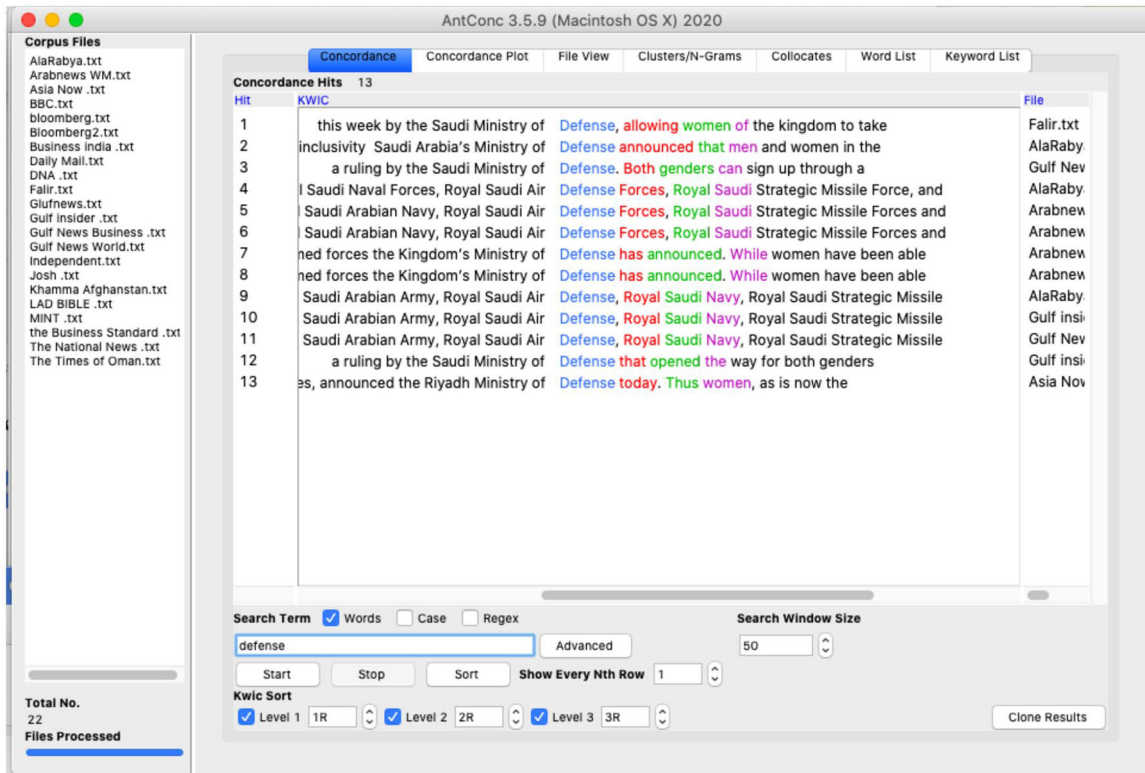


Fig. 5 Frequency of the term 'defence' in the news concordance tool.

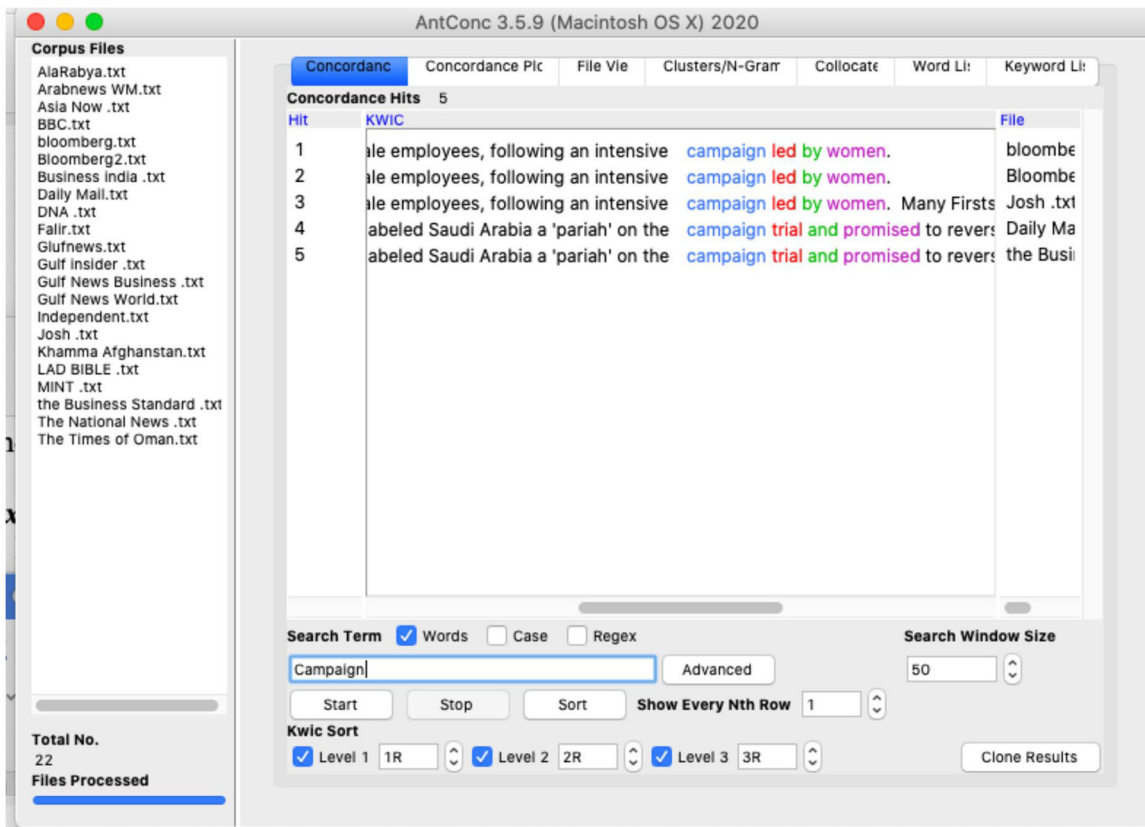


Fig. 6 Frequency of the term 'campaign' in the news concordance tool.

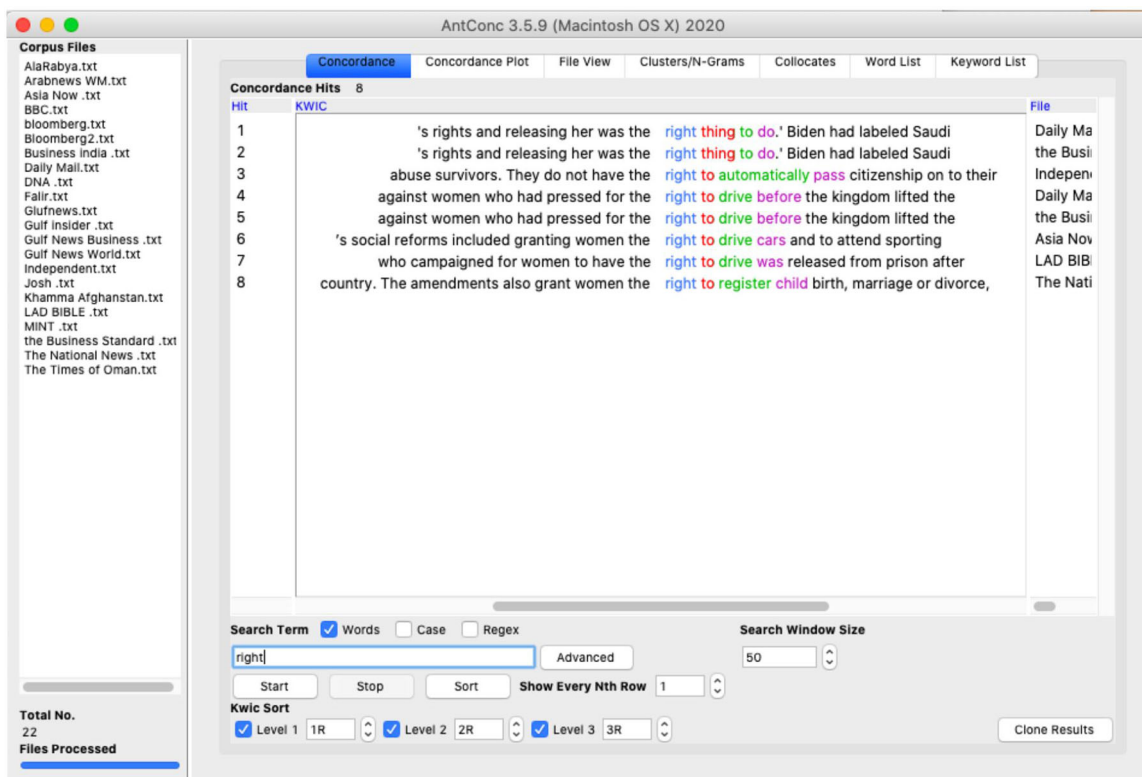


Fig. 7 Frequency of the term 'right' in the news concordance tool.

The word 'mission' is a positive word and only used in the *Gulf News* story; its use shows detachment and an entirely diplomatic presentation of the news. This may be attributed to the neighbouring and fraternal connection between the Gulf countries and their similarity in the religious, cultural, and tribal spheres.

Different discursive practices motivate the attitudinal frameworks and power relations that characterise Saudi society, particularly with regard to the status of women. Exaggeration is a discursive approach used to emphasise issues facing Saudi women. The entire story is characterised as a 'debut,' a term that refers to a first public performance. This approach forms an oblique reference to the need to take significant measures to liberate Saudi women. Finally, the discussion of a normalisation plan highlights the Saudi government-sponsored 'important advances' for women's empowerment.

Bloomberg, *Business Standard*, and *Daily Mail* are the only newspapers that use the word 'campaign' to refer to the times before 2015. This news is presented as if it is the product of a struggle and a result of intensive campaigns to allow Saudi women to join the army.

The word 'right' is polysemous; it can mean 'good' or 'being in accordance with what is just, good or proper.' Both meanings are utilised in the news articles reviewed. *Daily Mail* and *Business News* quote US President Joe Biden describing the decision as the right thing to do. The same news outlets linked this story with other rights given to Saudi women recently, such as the right to drive, to register a child, and to marry or divorce with greater freedom.

Qualitative analysis (CDA). This section addresses the second research question. The present study uses CDA to analyse the power relations that underpin press discourse (Fairclough 1989). The CDA framework implemented in this study is Fairclough's (1995) textual analysis and Van Dijk's (1993) SCA. Textual analysis is a practical way to identify the primary ideological

themes that control the depiction of events, issues, and groups (Fairclough 1995), whereas discursive analysis seeks to understand the strategies that propagate ideological themes inherent in speech (Van Dijk 1993). Integrating these two approaches of analysis may allow researchers to replicate the analysis in order to evaluate the findings of this study.

The analysis unfolded in three steps. The first was textual analysis, which extracts the features and actions or events that the press associates with Saudi women. It also examines the attitudes towards Saudi women revealed by the news texts. The second step involves the analysis of discursive practices that evaluate the context in which the discourse is produced in relation to the underlying attitudes. It bridges discourse semantics with deeper sociological reality. The analysis of social practices and the larger socio-political context that informs discourse patterns form the final step. Eckert and McConnell-Ginet (2003) and Pennycook (2001) discussed how CDA can reveal conveyed attitudes. For instance, discourse can hide ideology to neutralise it or can emphasise a particular attitude via persuasive strategies to convince people that the conveyed attitudes are correct.

Results and discussion

News reports, a mass media product, are supposed to strive to be objective and fair, but they instead serve the interests of the groups they represent; thus, it is impossible to eliminate the influence of their attitudes. Employing CDA to analyse news reports from the perspective of linguistics facilitates understanding the linguistic and contextual features that are reflected in the language of these reports. This section explains the interplay between corpus-based analysis and CDA for identifying media representations of women in the Saudi military.

Concordance lines analysis. Text analysis is a central part of Fairclough's three-dimensional model. The following keyword

analysis and concordance analysis indicate the linguistic and contextual features of the news reports reviewed. According to Fairclough's three-dimensional model, corpus lexical features must be described in the description phase. In the concordance list, the words before and after the term 'Saudi women' are displayed to show the context in which this term appears. Van Dijk (2013) considers that connections between keywords and social aspects can mirror certain social meanings. Thus, keywords reflect the position or attitude of news producers or news agencies. Finally, by analysing the concordance lists, we can produce quantitative results from a corpus (Fig. 1), then use the functions Concordance and File View functions for qualitative analysis.

These selected keywords are divided into the following two steps. First, there are topic-related words, such as female, Saudi women, military, army, etc. These words describe the effects of the news of the policy change on the world and how representative media outlets in the countries receive this information in connection with Saudi Arabia and in relation to political relationships. Much attention has been paid by neighbouring and distant countries around the world to the news of Saudi women joining the Saudi Arabian army. Second, the discussions of this step taken by Saudi Arabia reflect how this news echoes across the world. On the keywords list, the word 'female' indicates that Western newspapers in particular relate this news with previous observations from before 2015. For instance, the *Business* newspaper used the word 'right' to remind its audience of the pre-existing status of Saudi women in Saudi Arabia.

In this section, we first provide a summary of the attitudinal framings of the 29 newspapers examined based on previous analyses. These attitudes reflect the divergent political stances of the given newspapers and their attitudes related to the topic of Saudi women joining the army.

Patterns in representing Saudi women in press. The attitudes exhibited in news reports are not random expressions but are strategically selected and designed to exert power, that is, to influence attitudes and behaviors in their readers. Van Dijk (2013) suggests that the manipulation of the minds of others, including their knowledge and opinions, is a form of the exercise of discursive power. These strategies enable readers to resort to their logical reasoning, moral judgment and emotion.

In the following section, to understand the general patterns of representation of Saudi women joining the military in the press, the results of the examination of words and collocations in context are examined. The analysis identifies three patterns of portraying Saudi women, exemplified with short extracts from news reports.

Pattern 1: advocacy. In *Arab News*, published on October 3, 2019, the title 'Saudi women invited to join the ranks of the armed forces' describes Saudi women as being 'invited', a point which asserts that Saudi women are welcome now in this field. Saudi women are described as those who can 'climb'. It is reported that 'the first time they can be considered for more senior ranks.' The phrase 'more senior ranks' suggests that Saudi women have not been deprived of holding high positions in the past. Further, the positive view expressed by this report is also seen in its assertion that this step is taken to 'empower Saudi women and expand the role they play in society.' The phrase 'Saudi women' is surrounded by the positive words 'empower' and 'expand' that reflect the existing active participation of Saudi women in their society even before this decision appears.

The India-based newspaper *Business Today*, published on February 22, 2021, made another positive comment on this move. Although the title 'Saudi Arabia allows women to join armed

forces' indicates neutrality, the writer's lexical choices in the entire article demonstrate positivity. The article provides details of some armed forces that Saudi women can join, such as the Saudi Arabian Army, Royal Saudi Air Defence, and Royal Saudi Navy. The article states that 'introducing reforms that allow Saudi women to advance in various fields... Saudi women will be increasingly seen doing jobs that were previously limited to men.' This article views this move as an opportunity for advancement among Saudi women, with an expectation of increasing empowerment opportunities. The use of the positive words 'advancement' and 'increasingly' leads to this conclusion.

Surprisingly, *Unipath*, a US news outlet, portrays the news positively. Published in 2022, the title 'Saudi Women Proudly Enlist in Military' associates the word 'proudly' with 'Saudi women', which values the country's decision. The article admits the country's efforts in job equality: 'Saudi Arabia's Vision 2030 includes the promotion of gender equality...Even more ambitiously, in 2018 the kingdom opened up positions for women.' The words 'promotion' and 'ambitiously' reveal the positive attitudes held by the news writers. This is unlike the common writing style used by many news writers in Western press, which is mainly characterised by stereotyping as seen in the second pattern (i.e., subjective pattern). The above excerpts demonstrate positivity in three different sources: Western, non-Western and local newspapers.

Pattern 2: subjectivity/bias. A representative instance of media bias in portraying Muslim women and Saudi women in particular can be found in this text from an article on the *BBC* website, published on 26 February, 2018. The title 'Saudi Arabia allows women to join military' sounds neutral. The use of the description 'conservative Muslim' links a lack of job opportunities to Islam: 'The decision to recruit female soldiers is one of many reforms enhancing women's rights introduced in recent months in the conservative Muslim kingdom.'

Rather than viewing this decision as a turning point that will lead to further changes to women's rights, the article limits its discussions to other rights that Saudi women have not had, such as the issue of male guardianship, using an exaggerated tone: 'Saudi Arabia's discriminatory male guardianship system' and 'women must obtain permission to travel'. It should be noted here that these earlier barriers are now recognised nationally as having been resolved and lifted.

A similarly biased view is expressed by the UK-based newspaper *The Times*, published in 2021. Similar to other biased and positive-toned articles, the title is neutral and short 'Women allowed to join Saudi Arabian military'. This means that titles do not necessarily reflect the authors' attitudes. This article describes the move as occurring amid 'the country's attempts to reform its ultra-conservative social rules move into a new phase.' The use of the word 'ultra-conservative' indicates a biased tone.

Another similar subjective tone is presented in an article published in the Italian newspaper *P.I.M.E. AsiaNews* in 2021. The title 'Riyadh gives green light to women in the Armed Forces' is neutral, but the negative phrases 'Sunni monarchy' and 'Wahhabi fundamentalist view of Islam' are used in the main text to describe Saudi Arabia.

In these articles, in place of positively applauding or celebrating the news of Saudi women enlisting in the military, Western media outlets depict women's involvement as being the product of a struggle, referring to other obstacles that need to be conquered. The words 'conservative' and 'Muslims' imply that religion is a hindering factor to women's progress.

In addition to biased articles that blame religion for delaying the progress of Saudi women, there are other articles that refer to social and political constraints. For instance, an article in the

LAD Bible, published on 22 February, 2021, states that ‘women’s rights are still a cause for international concern’ and ‘Saudi Arabia was the last country in the world to prohibit women from getting behind the wheel of a car.’ The author’s lexical choices are negative: ‘women rights’ is associated with ‘international concern’, and ‘Saudi Arabia’ is described as ‘last’.

It has been mentioned in many biased publications that several other rights are still not present. For this reason, developments have been depicted as having occurred following a struggle. Women’s rights in Saudi Arabia have clearly expanded during the reign of King Salman Bin Abdulaziz and under Crown Prince Mohammed Bin Salman. Many constraints have either been lifted or been reduced, yet many attitudes are stuck in the past and refuse to acknowledge these changes.

Pattern 3: neutrality. A representative example of neutral reporting of news can be found in *Khaama Press* newspaper, published in Afghanistan in 2021. In this statement ‘Female employment has gradually been opened to women,’ the word ‘gradually’ here indicates that Saudi women have not been restricted from working, and the changes that have taken place in their employment opportunities have been gradual. Saudi women have been allowed to work in professions that match social needs. For instance, work in education and medicine have been among the opportunities already available for Saudi women. Later, after the emergence of Saudization more job opportunities appeared, and as a normal consequence, additional jobs have been created for Saudi women.

Some other Gulf-based newspapers have presented a neutral tone, such as *Alarabiya*, the *Times of Oman*, and the *Gulf News* which mainly focus on reporting the news and employment conditions. Another neutral view comes from a US and UK based news outlet, *Women Security*. Unlike the common subjective views that frame the Western press, this news article reports this achievement by Saudi women without drawing a leading impression. The article states the reason for allowing Saudi women to join the army without adding any subjective comments ‘increase the number of women in government and private sector roles.’ It goes further to count the security jobs that are available for Saudi women these days ‘Women will now be able to join the army, royal air defence, the navy, the royal Saudi strategic missile forces and the medical services of the armed forces.’

These findings show that the biased views of Saudi women as victims are mainly held by the West, a point that supports the claims of other researchers (e.g., Bashatah 2017; Brewer et al. 2003; Anctil Avoine and Lida 2016). This may be due to the negative representations of Arab Muslims, which increased following September 11, 2001 (Allen 2010; Petley and Richardson 2011; Schrag and Javidi 1997; Wilkins 2004). This current study provided a useful snapshot of how the tone of some Western news writers has slightly shifted to a more neutral or supportive tone for commending rapid changes in the country about Saudi women (e.g., *Security Women*, 2022; *Unipath*, 2022). Changing stereotypes may take a long time. Newspapers should present only facts and should focus on writing stereotype-free reports in order to enhance the credibility of their reports.

Conclusion

This study links linguistics, journalism and social studies by examining the attitudinal representations of Saudi women in newspaper articles. It is one of the few studies that compare Western, non-Western and local articles. The analyses and findings of this study indicate that newspapers deal differently with the news of Saudi women joining the military. Some newspapers present this news in a detached or neutral manner,

while others connect it to previous bans that no longer apply to Saudi women, revealing their biased attitudes. The concordance tool used here has clearly shown that the investigated articles distinctly vary in their accounts of Saudi Arabia. Apparently, newspaper agencies adhere to specific stereotypes and attitudes. Thus, the persistence of these disparate group perceptions can explain why stereotypes continue to influence newspaper coverage. In other words, media organisations continue to operate in accordance with their attitudes and stereotyping orientations, which may sometimes distort the truth and influence reality. Nevertheless, in accordance with the variance factor associated with stereotyping, there are a few emerging unbiased and supportive articles that highlight the flexibility and willingness to accept and celebrate positive changes and can contribute to the discussion of political and conservative attitudes and the resistance to change concept. Due to the dominance of obstinate attitudes among some media agencies and journalists, who build upon historical archetypes regardless of how significant the reform and change may be, it is recommended that media ethics and practices be revisited frequently (Ross 2019).

It may now be obvious that attitudes have a significant impact on how readers and the news are led to adopt certain conclusions. In other words, reading will somehow continue to be shaped by prejudice or bias, regardless of absolute facts. If all news is viewed as carrying some form of bias, we may reach a point where we, as readers, assess which news may be closer to the truth and reality, a matter of insiders versus outsiders, especially when the issue is related to a specific nation.

Given this reflection, it is the responsibility and role of ‘less biased’ locals or nationals to draw attention to reality if it is clearly identified and stated. Local news, Arab news or Muslim news, in general, may make a greater effort to publicise and support the achievements of Arab women, especially Saudi women, which have been made possible by the abundant support of their nations. A possible direction for future studies would be to carry out further investigations to compare and contrast the nature of news writing practices in the coverage of Arab women from different countries, cultures and religions and to identify changes of tone in portraying these women.

Implications and suggestions

The significant change in Saudi women’s empowerment since Saudi Vision 2030 is currently a subject of considerable interest. Due to the nation’s rapid progress, it is important to examine any new developments and how they may affect Saudi women’s global representation. The media, a complex entity shaped and impacted by many factors, is a key topic of inquiry. Further research is required to analyze how worldwide newspapers outlets react to the substantial transformations taking place in the country.

Both theoretical and analytical concepts in this study are very well combined, as CL can help to analyse the data accurately and could avoid bias. Thus, this study is hoped to enhance our knowledge about both approaches. Also, it can be a useful reference for journalists and reporters in communication, journalism, and broadcasting, as well as news policymakers.

The impact of this research can be said to combine three disciplinary fields of study: corpus linguistics, CDA, and media analysis. In addition, it is subdivided into four domains of contribution: theory, methodology, insights, and language resources. On the theoretical level, it somehow contributes to corpus linguistics, in that it establishes a theoretical framework encompassing two constituents (lexical features and collocation). This combination of two related theories can be used for future corpus-based studies on lexical features to highlight patterns in the analysed texts.

Similarly, the methodology employed in this research has the potential to be extrapolated and utilised in other studies with similar concerns. That is, this mixed-method approach, which examines recurring patterns in the press, can be applied to future media studies pertaining to attitudes in the realms of social sciences, sociolinguistics, and discourse analysis.

While additional research of this sort would be appreciated to provide more insights on the benefits and downsides of various CDA methods, we would conclude that this study indicates a clear advantage to an interdisciplinary approach. According to many experts in the field, the two techniques might work well as distinct components. The researchers also feel that such a method would foster collaboration among academics with diverse skill sets while also allowing alternative approaches to supplement corpus linguistics or CDA for improved outcomes. Other interesting topics might be explored to validate or dispute the findings in this article, whether they are linked to females or males in Saudi Arabia, Arab world countries, or the world, in general.

Data availability

The datasets used and analysed during the current study are available from the authors on request.

Received: 26 May 2023; Accepted: 19 January 2024;

Published online: 06 February 2024

Notes

- 1 Princess Reema bint Bandar Al Saud became Ministry of Sport Vice President of Women's Affairs on August 1, 2016. In September 2017, three key Citigroup positions were filled by women to lead its Saudi Arabia operations (Alotaibi 2019). In 2018, a woman became Deputy Labour Minister. Princess Rima Al Saud became the first Saudi ambassador to the US in 2019. Four Saudi women were appointed to similar positions in Norway, Finland, Sweden, and the EU. Three female cultural attachés were appointed to UK, Ireland, and Morocco diplomatic positions in 2020. Recent examples include Saudi Electronic University and King Abdul-Azizi University having female chancellors. Additionally, a woman is the Jeddah governorate education director-general.
- 2 In this paper, 'Western' refers to the countries typically referred to by this term in the media, primarily the countries whose natives are referred to as 'whites', such as the United Kingdom, the United States, and other European countries, whereas 'non-western' refers to almost the rest of the world, including the Asian, African, and Middle Eastern nations. Since the study concentrates on the Saudi context, 'local' refers to Saudi Arabian writers and agencies.

References

- Afzal N, Omar A (2021) The Saudi Vision 2030: Reproduction of women's empowerment in the Saudi press: A corpus-based critical discourse analysis. *Reg J* 14(1):121–138
- Allen A (2010) Recognizing domination: Recognition and power in Honneth's critical theory. *J Power* 3(1):21–32
- Allen F (2014) Islamophobia in the UK: the role of British newspapers in shaping attitudes towards Islam and Muslims. Dissertation, University of Wales, UK
- Al Maghlouth S (2021) Metaphorical analysis of discourse on early Saudi attempts to include women in unconventional work environments. *GATR Glob J Bus Soc Sci Rev* 9:1–9. [https://doi.org/10.35609/gjbssr.2021.9.1\(1\)](https://doi.org/10.35609/gjbssr.2021.9.1(1))
- Almaghlouth S, Almujaivel S (2023) Computational techniques for analyzing women's social change in Saudi newspapers. *Soc Sci* 12(3):114. <https://doi.org/10.3390/socsci12030114>
- Alotaibi F (2019) Saudi women and leadership: Empowering women as leaders in higher education institutions. *Open J Leadersh* 9(3):156–177
- Altohami WMA, Salama AHY (2019) The journalistic representations of Saudi women in the corpus of contemporary American English (COCA): A corpus critical discourse analysis. *Int J Engl Linguist* 9(6):320–336. <https://doi.org/10.5539/ijel.v9n6p320>
- Ancil Avoine P, Lida A (2016) 'Deviant' women in English Arab media: Comparing representation in Iraq, Saudi Arabia and Qatar. *Reflexión Poli* 18(36):34–48. <https://doi.org/10.29375/01240781.2651>
- Anthony L (2020) AntConc (Version 3.5.9) [Computer Software]. Tokyo, Japan: Waseda University. Available at: <http://www.antlab.sci.waseda.ac.jp/> (accessed 17 July 2022)
- Anthony L, Yasunori N, Kaoru T, Michael H (2012) Current trends in corpus linguistics: Voices from Britain. *Engl Corpus Stud* 19:67–92
- Baker P, Costas G, Majid K (2008) A useful methodological synergy? Combining critical discourse analysis and corpus linguistics to examine discourses of refugees and asylum seekers in the UK press. *Discourse Soc* 19(3):273–306
- Baker P, Costas G, Tony M (2013) *Discourse Analysis and Media Attitudes: The Representation of Islam in the British Press*. Cambridge University Press, Cambridge
- Bashatah N (2017) Framing analysis of British newspaper representation of Saudi women from 2005–2013. Dissertation, University of Salford, UK
- Bednarek M, Carr G (2020) Computer-assisted digital text analysis for journalism and communications research: Introducing corpus linguistic techniques that do not require programming. *Media Int Aust* 181(1):131–151
- Brewer PR, Joseph G, Lars W (2003) Priming or framing: Media influence on attitudes toward foreign countries. *Gazette* 65(6):493–508
- Brezina V (2018) *Statistics in Corpus Linguistics: A Practical Guide*. Cambridge University Press
- Coffey, L (2013) "Innocent Until Proven Filthy": A Corpus-Based Critical Stylistic Analysis Of Representations Of Men In Women's Magazines. Dissertation, University of Huddersfield, UK
- Conboy M (2010) The paradoxes of journalism history. *Historical J Film, Radio Television* 30(3):411–420
- Das E, Bushman BJ, Bezemer MD (2009) How terrorism news reports increase prejudice against outgroups: A terror management account. *J Exp Soc Psychol* 45(3):453–459
- Davies M (2009) The 385+ million word corpus of contemporary American English (1990–2008+): design, architecture, and linguistic insights. *Int J Corpus Linguist* 14:159–190. <https://doi.org/10.1075/ijcl.14.2.02dav>
- Deng, M E, Nicol, AAM, Ralph, CS (2023) Masculine Conformity and Social Dominance's Relation With Organizational Culture Change. *Armed Forces & Society*, 0(0). <https://doi.org/10.1177/0095327X231178522>
- Deuze M (2002) National news cultures: A comparison of Dutch, German, British, Australian, and U.S. journalists. *Journal Mass Commun Q* 79(1):134–149. <https://doi.org/10.1177/107769900207900110>
- Deuze M (2008) Understanding journalism as newswork: How it changes, and how it remains the same. *Westminst Pap Commun Cult* 5(2):4–23. Available at (accessed 12 August 2023) https://www.westminster.ac.uk/_data/assets/pdf_file/0006/20022/002WPCCV05-No2-Mark_Deuze.pdf
- Dixon TL (2007) Black criminals and white officers: The effects of racially misrepresenting law breakers and law defenders on television news. *Media Psychol* 10(2):270–291
- Eckert P, McConnell-Ginet S (2003) *Language and Gender*. Cambridge University Press, Cambridge
- Elyas T, Aljabri A (2020) Representations of Saudi Male's guardianship system and women's freedom to travel in western newspapers: A critical discourse analysis. *Contemp Rev Middle East* 7(3):339–357. <https://doi.org/10.1177/2347798920921977>
- Fairclough N (1989) *Language and Power*. Longman, New York
- Fairclough N (1995) *Critical Discourse Analysis: A Critical Study of Language*. Longman, London
- Greenslade R (2005) *Seeking Scapegoats: The Coverage of Asylum in the UK Press* (Vol. 5). London: Institute for Public Policy Research. <https://doi.org/10.1163/15692086-12341371>
- Happer C, Philo G (2013) The role of the media in the construction of public belief and social change. *J Soc Political Psychol* 1(1):321–336. <https://doi.org/10.5964/jspp.v1i1.96>
- Hoewe J, Peacock C (2020) The power of media in shaping political attitudes. *Curr Opin Behav Sci* 34:19–24. <https://doi.org/10.1016/j.cobeha.2019.11.005>
- Karolak M, Guta H (2020) Saudi Women as Decision Makers: Analyzing the Media Portrayal of Female Political Participation in Saudi Arabia. *Hawra* 18(1):75–95. <https://doi.org/10.1163/15692086-12341371>
- Kneafsey L, Regan A (2019) The role of the media in shaping attitudes toward corporate tax avoidance: Experimental evidence from Ireland. *Research Papers in Economics*. Working Paper 201904. Geary Institute, University College Dublin, Dublin Available at: <https://ideas.repec.org/p/ucd/wpaper/201904.html>
- Li K, Zhang Q (2021) A corpus-based study of representation of Islam and Muslims in American media: Critical discourse analysis approach. *International Communication Gazette*, 84(2). <https://doi.org/10.1177/1748048520987440>
- Mastro D (2009) Effects of racial and ethnic stereotyping. In: Bryant J, Oliver MB (eds) *Media Effects*. Routledge, New York, p 341–357.
- McEnery T, Hardie A (2011) *Corpus Linguistics: Method, Theory and Practice*. Cambridge University Press, Cambridge
- McIntyre D, Walker B (2019) *Corpus Stylistics*. Edinburgh University Press, Edinburgh
- Mendes K (2011) *Feminism in the News: Representations of the Women's Movement since the 1960s*. Palgrave Macmillan, London

- Navarro L (2010) Islamophobia and Sexism: Muslim Women in the Western Mass Media. *Hum Architecture: J Sociol Self-Knowl* 8(2):95–114
- Okonofua F, Omonkhua A (2021) Women empowerment: A new agenda for socio-economic development in Saudi Arabia. *Afr J Reprod Health* 25(1):9–12
- Parveen M (2021) Women empowerment: new paradigm shift of Saudi women into labor workforce. *Soc Bus Rev* 17(1):66–91. <https://doi.org/10.1108/SBR-10-2020-0123>
- Pei J, Li D, Cheng L (2022) Media portrayal of hackers in China Daily and The New York Times: A corpus-based critical discourse analysis. *Discourse Commun* 16(5):598–618
- Pennycook A (2001) *Critical Applied Linguistics: A Critical Introduction*. Lawrence Erlbaum Associates, New Jersey
- Petley J, Richardson R (2011) *Pointing the Finger: Islam and Muslims in the UK Media*. One World Publications, London
- Peters, K, Ryan, MK, Haslam, SA (2015) Marines, medics, and machismo: Lack of fit with masculine occupational stereotypes discourages men's participation. *British Journal of Psychology*, 106: <https://doi.org/10.1111/bjop.12106>
- Rautiainen, I (2021) Talk and action as discourse in UN military observer course: routines and practices of navigation. In: Chilwa, I (ed) *Discourse and Conflict: Analysing Text and Talk of Conflict, Hate and Peace-building*. Palgrave Macmillan, Cham, p 381–412
- Ross T (2019) Media and Stereotypes. In: Ratuva S (ed) *The Palgrave Handbook of Ethnicity*. Palgrave Macmillan, Singapore, p 1–17
- Saleh W, Malibari A (2021) Saudi women and Vision 2030: Bridging the gap? *Behav Sci* 11(10):132. <https://doi.org/10.3390/bs11100132>
- Schrag RL, Javid MN (1997) Through a glass darkly: American media images of middle eastern cultures and their potential impact on young people. In: Kamalipour YR (ed) *U.S. Media and the Middle East*. Praeger, Westport, p 212–221
- Scott M (1997) PC analysis of key words—and key key words. *System* 25(2):233–245. [https://doi.org/10.1016/S0346-251X\(97\)00011-0](https://doi.org/10.1016/S0346-251X(97)00011-0)
- Shaw EF (1979) Agenda-setting and mass communication theory. *Int Commun Gazett* 25(2):96–105. <https://doi.org/10.1177/001654927902500203>
- Sjoberg L, Gentry CE (2007) *Mothers, Monster, Whores: Women's Violence in Global Politics*. Zed Books, London
- Smith, HL, Luedtke, CJ (2005), Factors that Limit the True Integration of Women at Military Academies. In: Caforio, G, Kümmel, G (ed) *Military Missions and their Implications Reconsidered: The Aftermath of September 11th (Contributions to Conflict Management, Peace Economics and Development, Vol. 2)*, Emerald Group Publishing Limited, Bingley, p 369–389
- Sonbol D (2020) A social constructionist approach to female entrepreneurs' media representation and experiences in Saudi Arabia. Dissertation, Warwick University, UK
- Tindall D, Stoddart MC, Callison C (2018) *The Relationships Between Climate Change News Coverage, Policy Debate, and Societal Decisions*. Oxford Research Encyclopedia of Climate Sciences. Oxford University Press, Oxford
- Tognini-Bonelli E (2001) *Corpus Linguistics at Work*. John Benjamins, Amsterdam
- Van Dijk TA (1988) *News as Discourse*. Lawrence Erlbaum, New Jersey
- Van Dijk TA (1991) *Racism and the Press*. Routledge, London
- Van Dijk TA (1993) Principles of critical discourse analysis. *Discourse Soc* 4(2):249–283. <https://doi.org/10.1177/0957926593004002006>
- Van Dijk TA (2013) Ideology and Discourse. In: Freedon M, Sargent LT, Stears M (eds) *The Oxford Handbook of Political Ideologies*. Oxford University Press, Oxford, p 175–196
- Wanta W, Golan G, Lee C (2004) Agenda setting and international news: Media influence on public perceptions of foreign nations. *Journal Mass Commun Q* 81(2):364–377. <https://doi.org/10.1177/107769900408100209>
- Wilkins AC (2004) 'So full of myself as a chick' Goth women, sexual independence, and gender egalitarianism. *Gen Soc* 18(3):328–349. <https://doi.org/10.1177/0891243204264421>

Acknowledgements

This study is not funded.

Author contributions

Elham Ghobain contributed to research planning and conceptualisation, data collection and refining, writing, reviewing and editing the manuscript. Haifa Al-Nofaie contributed to the critical discourse analysis, writing, reviewing and editing the manuscript. Amira Saad was involved in data collection, corpus-analysis, writing the Methodology and reviewing the manuscript. All the authors contributed actively to revising and reviewing the final submission.

Competing interests

The authors declare no competing interests.

Ethical approval

This article does not contain any studies with human participants performed by any of the authors.

Informed consent

This article does not contain any studies with human participants performed by any of the authors.

Additional information

Supplementary information The online version contains supplementary material available at <https://doi.org/10.1057/s41599-024-02694-2>.

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