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Implicit Gender Bias in Job Advertisements: The Interactive Influence of Masculine Wording, and Gender and Professional Closeness of the Contact Person on Job Appeal

Navn: Randi Druglimo, Anna Sofie Holst Akselsen

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# Implicit Gender Bias in Job Advertisements: The Interactive Influence of Masculine Wording, and Gender and Professional Closeness of the Contact Person on Job Appeal

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## Abstract

To understand the extent to which gendered wording exists in job advertisements in the Norwegian context, and what the implications of using masculine wording in job advertisements for male-dominated professions could be for the recruitment of female applicants, we have carried out two studies. First, a pre-study was conducted to examine the existence of gendered wording in Norwegian job advertisements for male-dominated professions. The archival analysis of 200 ads showed that there is a minimal difference with a slightly higher percentage of masculine wording than feminine wording (H1). In both Construction and Finance a higher percentage of masculine language was found, whilst in the advertisements for positions within IT the number of feminine words was higher. However, within Transport and Logistics the distribution of gendered words was equal.

Second, using an experimental design and data from 174 college-level students, we found that masculine wording in job advertisements for finance positions did not have a negative effect on job appeal ratings from females (H2). When adding the gender of the contact person no difference was found (H3). However, when looking at the interaction between the gender and professional distance of the contact person and its effect on job appeal in the context of masculine wording, an interesting effect was identified. In contrast to what we predicted, the findings suggest that female job seekers are less likely to find the job advertisement appealing when the contact person is male and professionally distant (H4).

This shows that in Norwegian job advertisements cues other than language may be important for the recruitment of female applicants to male-dominated professions, and that further research is needed in this area. Practical implications and suggestions for further research of these findings are discussed.

*Keywords: recruitment; gender bias; diversity; stereotypes; recruitment and selection*

## Introduction

Even though Norway is a leading nation when it comes to gender equality further effort is needed in the workplace, especially in the private sector. The skewed distribution of men and women in certain professions is a reality in Norway (Statistics Norway, 2017). In this regard, we are interested in why this distribution is skewed and what mechanisms might affect the proportion of women in typically male-dominated professions. From a business perspective, gender diversity is vital to any organization (Mor Barak, 2014). A Gallup study of over 800 business units within two companies in the retail and hospitality industries, found that gender-diverse teams had superior financial performance and were more competitive compared to single-gender teams (Badal, 2014). The reason for this is claimed to be the contrasting viewpoints, market insights, and differences in the ideas of men and women. Furthermore, Badal (2014) found that attracting and retaining talented women is easier when the organization is gender diverse. The value of gender diversity was supported by a McKinsey report from 2015, where the top quartile of gender diverse companies was 15% more likely to perform better financially than the national industry mean (Hunt, Layton & Prince, 2015).

Gender bias and its possible consequences have mainly been investigated in selection processes (e.g. Kmec, 2005; van den Brink, Brouns & Waslander, 2006). However, growing evidence suggests that gender bias might already occur in the pre-application stage through cues in the job advertisements. One of the cues that have been previously studied is gendered wording. Research on gendered wording centers around the choice and use of words, and its effect on men and women. Research on the use of gendered wording in job advertisements show that different words appeal differently to men and women (e.g. Bem & Bem, 1973; Gaucher, Friesen & Kay 2011; Mastromoro, 2013; Rho, 2016; Estrada, Leduc, Messer, Pookote, & Thakur, 2017). Further, female applicants are more discouraged from applying to positions that use a high concentration of masculine wording than men are in applying to positions that use a high concentration of feminine wording (e.g. Bem & Bem, 1973; Gaucher et al., 2011).

The majority of research on gendered wording in job advertisements has been conducted in English speaking countries, such as the U.S. and Canada. Therefore, we are interested in whether gendered wording also exists in

Norwegian job advertisements, particularly the use of masculine wording in male dominated industries/occupations, and what the implications of this could be for the recruitment of female applicants. Based on previous research, we predict that job advertisements using masculine wording for jobs in male-dominated professions will be rated as less appealing by females than males, thereby reducing the recruitment prospects of females.

Little empirical work has examined the possible boundary conditions (i.e., moderators) in the relationship between the use of gendered wording in job advertisements and job appeal ratings. As most job advertisements posted in Norway include contact information for a representative of the organization or an external recruiter, we will also look at the possible effects that the contact person's gender and professional distance could have on job appeal ratings of female job applicants. In this research, professional distance refers to the proximity of the contact person in a job announcement for the position being advertised. Close professional distance is reflected in contact persons that are an immediate supervisor of the position, whereas far professional distance is reflected in contact persons in more distal and qualitatively different positions that could be responsible for the recruitment process (e.g., HR managers, recruiter), but not in managing persons in the position itself. Drawing on Social Identity Theory and previous research, we predict that job appeal ratings for male biased job advertisements will be highest among female applicants when the contact person is of the same gender as the potential applicant (i.e., female) and professionally close (e.g., team leader, manager), and lowest when the contact person is of a different gender (i.e., male) and professionally distant (e.g., recruiter or HR manager). Thus, our research questions are:

- *Are job advertisements for male-dominated professions in Norway male-biased (use a high number of masculine words, or using more masculine words than feminine words)?*
- *Does male-biased wording in job advertisements for male-dominated professions have a negative impact on the job appeal ratings given by female job seekers in Norway?*
- *Do certain cues about the contact person in male-biased job advertisements for male-dominated professions (gender, the role*



*held) have an effect on the job appeal ratings given by female job seekers? When are female job appeal ratings highest and lowest?*

The present research includes an archival analysis and an experiment, both aimed at increasing our understanding of why similarly qualified men and women would apply to different jobs. Also, this study will help us in understanding and being aware of potential bias in job advertisements, which may influence the gender balance in an organization.

## **Literature Review**

### ***Recruitment***

In modern organizations, a central feature is the trend of men and women to working in systematically divergent industries and occupations. This phenomenon is known as gender segregation (Perry, Davis-Blake & Kulik, 1994; Barbulescu & Bidwell, 2013). In the search of an explanation of this phenomenon, research (e.g. Bielby & Baron, 1986) has focused on the employer's selection of whom to hire. However, gender segregation may also be a consequence of women and men's choices in regard to which jobs they apply for (Barbulescu & Bidwell, 2013). Thus, it may be a result of the recruitment process, which can be seen as the pre-application stage. Recruitment can be defined as "the process of attracting individuals on a timely basis, in sufficient numbers, and with appropriate qualifications to apply for jobs with an organization" (Mondy & Mondy, 2014, p.134). In this pre-application stage, the organizational attraction is mostly dependent on employment advertising (Barber, 1998). Despite the necessity of using job advertisements in recruitment, there is a lack of empirical studies of job ads (Jones, Shultz & Chapman, 2006). Mastromoro (2013) argue that recruitment is one of the first barriers for applicants to overcome potential stereotype and discrimination. The language used in job advertisements can be seen as the starting point for where social interactions between job seekers and employers initially occur (Rho, 2016). This is a two-way interaction where both the recruiter and the job seekers have biased expectations that might lead to biased evaluations (Ridgeway, 2011).

### ***Jobs and Gender***

Job characteristics are also likely to affect whether an applicant will experience discrimination. Based on an integrative theory of why women possibly apply to other jobs than men, Barbulescu and Bidwell (2013) found that men are more likely to apply to finance and consulting jobs and that women are more likely to apply to general management positions. Women have been found to be less favorably evaluated than men in line jobs within a large financial service company, as these were seen as more strongly male-dominated positions than e.g. staff jobs (Lyness & Heilman, 2006). Pazy and Oron (2001) reported similar findings when examining high-ranking military officers and found that women were classified as less competent. Cejka and Eagly (1999) found that job seekers perceived that success in a specific gender dominated job required matching gender stereotypical attributes. According to Anthony (2004) nursing is an example of a profession that has evolved into a stereotypical female profession. Furthermore, she claims that gender bias contributes to perpetuating the traditional gender roles and is a hinder for recruiting men into the profession. The uneven concentration of men and women in different occupations is a fundamental process in social inequality, where people experience differential treatment based on their gender (Reskin, 1993). According to Reskin (1993), the sex composition of the labor force can be an indicator of the quantity of sex segregation, however, there has been a decline in sex segregation in many industrialized countries since 1970. Nevertheless, due to social and economic forces, some occupations are still dominated by either sex (Reskin, 1993).

Barbulescu and Bidwell (2013) argue that some of the reasons behind women's preferences in job choice are the low identification they feel with stereotypical masculine jobs, combined with low expectations of a getting these jobs. Teigen (2002) propose that sex segregation in management positions can be explained by both supply- and demand theory. According to supply theory, the gender structure is created by gender differences in occupational choices and ambitions. The demand theory emphasizes how some organizations favor men whilst disfavoring women (Teigen, 2002), and propose that sex segregation in management positions is shaped by the gender biased recruitment practices and norms (Collinson & Hearn, 1996). MacIntosh (2002) claims that increased awareness of gender issues and avoidance of gender biased language can result in

empowered professionals and increased gender diversity. Lastly, the existing male or female stereotypical occupations may also build on the traditional division of labor roles, where women stayed at home while men were out working (Chon, 1985 retrieved from Davison and Burke, 2000).

### ***Stereotypes and Gender Bias***

Implicit bias refers to attitudes and stereotypes that unconsciously affects our judgment and impression formation, thus they can result in behavior that deviates from a person's settled beliefs (Greenwald & Krieger, 2006). "Stereotypes are generalizations about groups that are applied to individual group members simply because they belong to that group, and gender stereotypes are generalizations about the attributes of men and women" (Heilman, 2012, p.114). According to 'the lack of fit model', men are typically described with agentic traits (e.g. dominant, ambitious and independent), whereas women's stereotypical attributes are characterized by being communal (e.g. helpful, kind and understanding) (Heilman, 2012). Both genders are seen as lacking what is believed to be common for the other sex, in other words, descriptive gender stereotypes tend to be oppositional (Heilman, 2012). Broverman, Vogel, Broverman, Clarkson and Rosenkrantz (1972) found in their studies that stereotypical masculine characteristics more often are evaluated positively than feminine characteristics.

When describing how men and women typically *are*, descriptive gender stereotypes are applied (Heilman, 2012). Studies have shown that descriptive stereotypes are found to be consistent across culture, time and context and that they serve as heuristics for forming impressions about people (Heilman, 2012). In work settings such beliefs are only problematic when negative expectations are related to performance, e.g. when there is a "lack of fit" between the attributes required to succeed in traditionally male occupations, and a woman's attributes (Heilman 1983, retrieved from Heilman 2012). Further, 'the lack of fit model' suggests that these negative performance expectations; which are based on stereotypes, prompt cognitive distortions that form the basis of gender bias. There is evidence that the degree of the perceived lack of fit affects the amount of bias in the recruitment process (Gaucher et al., 2011).

Prescriptive gender stereotypes describe how men and women *should be*, in terms of appropriate and inappropriate attributes and behaviors (Heilman,

2012). Hence, they function as norms and thus neglecting these gender prescriptions has consequences in terms of social disapproval and negativity (Rudman & Glick, 2001). Studies have found that females that violate these stereotypically prescribed attributes are regarded less psychologically healthy, considered cold and are disliked (Heilman, 2012). Furthermore, the same effect is found to apply to men as a behavior that contradicts the stereotype often are perceived as passive and wimpy and are less respected (Heilman, 2012). As both men and women experience penalties when violating gender stereotypes, the idea of prescriptive gender stereotypes leading to gender bias is further supported.

While the phenomenon of stereotyping is widely researched in evaluations of others, little is known about how individuals stereotype themselves (Sinclair, Hardin & Lowery, 2006). When self-stereotyping, individuals see themselves as possessing the characteristics and behaviors that are associated with their most accessible social group; this is what is known as an in-group (Sinclair et al., 2006; Oswald & Chapleau, 2010). Individuals are members of multiple social groups, thus which in-group one identifies with depends on which one is relevant or accessible in a specific situation (Sinclair et al., 2006). When individuals categorize the self and others by e.g. gender, stereotyping and in-group preferences are the underlying mechanisms (Rho, 2016). Research also shows that gender bias self-stereotyping seems to have a stronger effect on women than on men (Lorenzi-Cioldi, 1991).

### ***Social Identity and Job Attraction***

Social identity theory proposes that individuals identify with and like those who are similar to themselves, and there are two cognitive processes that work together to form a social identity, namely categorization, and identification (e.g. Ashforth & Mael, 1989).

The job attraction theory suggests that the personal characteristics of job applicants will influence how attractive they find a job (Born & Taris, 2010). When there is a match between the applicant's characteristics and the job advertisements, the applicant is according to Born and Taris (2010) more likely to feel attracted to the job. Taris and Bok (1998) argue that women find job advertisements with a feminine profile more attractive than when the profile is masculine. However, this effect has not been found among male applicants (Bem & Bem, 1973; Taris & Bok, 1998; Gaucher et al., 2011).

The similarity-attraction theory proposes that individuals that are similar are interpersonally attracted to each other as they see themselves holding similar characteristics (Byrne, 1971). In the pre-application stage, applicants are more likely to feel attracted to the job when they identify with elements, such as the gender of the contact person in the job advertisement (Jackson et al., 1991; Johnson, Winter, Reio Jr., Thompson & Petrosko, 2008).

### ***Gendered wording***

Maass, Milesi, Zabbini and Stahlberg (1995) describes how language plays an important role in maintaining and transmitting stereotypes and uses the linguistic intergroup bias model to describe systematic bias in language use, and how this can contribute to the perpetuation of stereotypes about in-groups and out-groups. Language can be associated with either sex and can be viewed as either feminine or masculine, thus it is gendered (Mastromoro, 2013). However, the use of stereotypical gendered language often goes unnoticed as it is widely accepted and embedded within the structure of a society (Gaucher et al., 2011). Social Dominance Theory proposes that inequalities among groups are reinforced by institutional-level mechanisms (Sidanius & Pratto, 2001), and further Gaucher et al. (2011) identify gendered wording as one of these mechanisms. Gaucher et al. (2011) establish that gendered wording in job advertisements, whether intentional or unintentional, affected gender inequality when employers announced for new hires.

In Norway, it is prohibited by law (The Equality and Anti-Discrimination Act, 2018, §6) to use language that explicitly indicates a preference for applicants of a specific sex. However, as described by Rho (2016) in the US context, the process behind creating the advertisement may nonetheless contribute to gender inequality, due to implicit rather than explicit bias. Gorman (2005) found in her study that when the job advertisements include a great amount of stereotypically masculine characteristics, there was a smaller proportion of female new hires, and that the female proportion of new hires increased when the criteria included more stereotypically female traits. It has been shown that some words currently appeal to men and some appeal to women (Gaucher et al., 2011) and further sex-biased wording may actually discourage the job seekers from applying to jobs even though they are qualified (Bem & Bem, 1973). This was supported by Horvath and Sczesny (2016) who argues that are less likely to apply for leadership

positions when the wording in the ads are masculine loaded. Gaucher et al. (2011), argued that this tendency may be explained by female job seekers perception of fit within a certain area, and identified belongingness as a mediator between masculine wording and job appeal. When masculine wording is prominent in job advertisements, women's perception of belongingness also tends to decrease. In line with the work of Bem and Bem (1973), this indicates that gendered wording has a greater effect on women than men.

## **Theory and Hypotheses**

### ***The existence of gendered wording in Norway***

Based on previous research on masculine and feminine words and gender differences in the language, Gaucher et al. (2011) developed a list of words that appeal to either men or women (Appendix A). Some of the words associated with male stereotypes are leader, competitive, dominant, individualistic, and committed; while examples of feminine stereotypic words are support, understand, interpersonal, ambitious, and assertive. Further, Gaucher et al. (2011) examined the existence of gendered wording in job advertisements in Canada. Their results indicated that job advertisements in male-dominated occupations, such as plumbers, mechanics, and computer programmers, contained a larger amount of masculine words compared to the presence of feminine words in female-dominated occupations, such as nurses, HR, and bookkeepers. However, as far as we know, the existence of gender biased wording have not been investigated in Norwegian job advertisements. A certified translation of Gaucher et al.'s (2011) word list from English to Norwegian has been conducted by Master Management Norge AS (Appendix B). Thus, we expect to find evidence for the existence of gendered wording in Norwegian job advertisements, and we hypothesize as following:

*H1: Job advertisements within male-dominated professions in Norway contain more masculine words than feminine words.*

### ***The effect of gendered wording***

Bem and Bem (1973) investigated whether gendered wording led to discrimination in the recruitment process. Their findings indicate that sex bias in

job advertisements does discourage both men and women from applying to “sex-opposite” jobs. When the job advertisement was manipulated to include large numbers of masculine words, only 5% of the participating women were interested in the job. When considering men, the findings indicated that as much as 30% were interested in the job, even though the job advertisement were manipulated by feminine wording (Bem & Bem, 1973). Thus, gendered wording seems to have a greater impact on women than men. A similar study was conducted by Estrada et al. (2017), whom found that re-wording of job advertisements by including more feminine words, increased the likelihood of women to apply. However, in contrast to Bem and Bem’s (1973) findings, Estrada et al. (2017) found that the increase in feminine words in the job advertisement did not have an effect on the number of male applicants. Rho’s (2016) findings indicate that when the wording is masculine, females show less interest in the advertised job. Further, Gaucher et al. (2011) found that people tend to assume that an occupation is more male-dominated when the wording in the job advertisement is masculine and that women find these jobs less appealing than men.

Based on these previous findings we expect that masculine wording in job advertisements will affect job appeal ratings given by female job seekers in Norway. Specifically, in male-dominated professions, we expect that when job advertisements us a large number of masculine words, job advertisements will be less appealing to women. Therefore, we hypothesize the following:

*H2: Male-biased job advertisements for jobs in male-dominated professions are less likely to appeal to females than males.*

### ***Gender of the contact person***

Previous research has provided evidence that applicants of the same gender as the recruiter is more likely to get hired, due to in-group preferences (Gorman, 2005). People feel more comfortable with and are more likely to trust and attribute positive characteristics to members of their own in-groups and are thus more likely to favor them (Brewer & Brown, 1998). However, researchers have also hypothesized that the gender of the recruiter may affect job applicants during the recruitment process. Liden and Parsons (1986) discovered that particularly female applicants were more positive towards female recruiters. According to Rho’s (2016) study, applicants are more likely to be of the same

gender as the contact person specified in the job advertisement. Taylor and Bergmann (1987) on the other hand found that female applicants felt less attracted to jobs when the recruiter was female and was less likely to accept the job. However, this effect was not found among male applicants (Taylor & Bergmann, 1987). Estrada et al. (2017) also investigated the effect of the contact person's gender on job applicants' intentions to apply for the advertised job but did not find any significant effect. Earlier research conducted by Barber and Roehling (1993) also show that individuals ignored recruiter variables such as gender and position.

Due to the limited evidence and inconsistent findings on the effects of the contact person's gender on potential job applicants, the current study will explore this further in the context of masculine wording in Norwegian job advertisements. Based on in-group preferences and the similarity attraction theory, we expect that a job will be less appealing when the contact person is of the opposite sex of the job seeker. Thus, we developed the following hypothesis:

*H3: Male-biased job advertisements for jobs in male-dominated professions are less likely to appeal to females when the contact person in the job announcement is male than female.*

### ***Professional closeness of the contact person***

Some researchers suggest that the gender of the contact person affects the job applicants in the recruitment process and argue that applicants are more likely to be of the same gender as the contact person (Liden and Parsons, 1986; Rho, 2016). However, little is known about other aspects of the recruiter; for instance, professional position, that might influence job seekers in the pre-application stage.

Carless and Wintle (2007) investigated the effect of internal versus external recruiters on job applicants. They argued that due to the increased use of external HR functions, such as recruitment, it is important to understand how the function of the recruiter might affect perceived attraction to the workplace. However, their findings did not show any significant difference in applicant attraction when the contact person (recruiter) was internal versus external. On the other hand, it is shown that line recruiters are perceived more positively than HR recruiters among job applicants (Fisher, Ilgen, & Hoyer, 1979; Taylor & Bergmann, 1987).



Due to limited research on aspects of the recruiter, the present study will explore this further and look at the interaction between the gender and the professional closeness of the contact person and its effect on females' job appeal ratings of male-biased job advertisements within male-dominated professions. Based on the similarity-attraction theory we expect that when the applicant hold similar characteristics as the contact person, such as gender and similar professional function, the advertisement is more likely to be appealing. Further, we expect these cues to trigger self-stereotyping based on in-group preferences. As research shows that gender bias self-stereotyping have a stronger effect on females than males (Lorenzi-Cioldi, 1991), we expect the interaction between contact gender and professional closeness to have a larger effect on females than males. Specifically, we expect that male-biased job advertisements for jobs in male-dominated professions will be more likely to appeal to females when the contact person is professionally close (team leader or manager) and of the same gender as the potential applicant (i.e., female) than when the contact person is professionally close but of a different gender (i.e., male). Further, when the contact person is professionally distant and of the opposite gender as the potential applicant we expect that the advertisement is less likely to be appealing.

*H4: Contact person professional distance interacts with contact person gender, such that male-biased job advertisements for jobs in male-dominated professions are more likely to appeal to females when the contact person is professionally close and female than when the contact person is professionally close and male.*

### **Study 1: Pre-study - The Existence of Gendered Wording**

In study 1, we examine whether job advertisements within male-dominated occupations in Norway contain more masculine words than feminine words (H1). To investigate the existence of gendered wording, and the overrepresentation of masculine words as compared to feminine words, we conducted an archival analysis. Based on the list of gendered words developed by Gaucher et. al (2011) which has been translated to Norwegian by an authorized translator (Appendix B), we analyzed job advertisements within typically male-dominated occupations in Norway.

## ***Method***

By using descriptive content analysis, we identified the percentage of gendered wording in existing online job advertisements. To conduct the language-analysis we used the linguistic software NVivo.

## ***Sample***

As finn.no and nav.no are among the most popular websites for job search in Norway, this is where we collected the ads. We retrieved an overview of occupations that present the proportion of men and women in various sectors in 2016 (Statistics Norway, 2017). Based on this graphic and the categorization of the occupations on the job search websites we picked out the four sectors that were the most male-dominated; construction and industry, finance, information and communication, and transport and logistics. All of the ads were randomly selected based on the following criteria; they are full-time positions, the job location is in Norway, and the ad is written in Norwegian. Based on these criteria, fifty ads from each of the four sectors were selected, which gave a total of 200 ads for the language-analysis.

## ***Analysis***

We registered all the gendered words from Gaucher et al. (2011) in NVivo, and then ran our collection of ads through the program to see if any of the gendered words were found. In order to increase the accuracy of the analysis we had to edit all of the ads. We removed all the basic information such as permanent employment (in Norwegian; fast ansettelse) and the application deadline. Also, thirteen of the words from Gaucher et al. (2011) appeared to have a different meaning than intended, hence they were removed (see Appendix C). The NVivo-analysis gave all the ads a percentage score which indicates how much of the total words in the advertisement were either masculine or feminine.

## ***Results***

### ***Hypothesis 1***

Based on previous research (e.g. Bem & Bem, 1973; Gaucher et. al, 2011; Mastromoro, 2013; Rho, 2016; Estrada et. al, 2017), we expected the job advertisements obtained from male-dominated industries to contain a greater proportion of masculine than feminine words.

As expected, the results indicate that there is a slightly higher percentage of masculine wording in job advertisements within male-dominated industries, compared to the percentage of feminine wording (H1). However, the difference in the percentage of feminine and masculine wording was minimal. Taking all industries into account, the average proportion of masculine words was found to be 0,62%, compared to the average proportion of feminine wording which were found to be 0,59%, indicating a minimal difference in the presence of feminine and masculine wording.

Looking at every single industry, differences in the presence of gendered wording were identified. The highest percentage of male biased wording was found in *Construction* (0,75%). In the same industry, there were identified 0,58% female biased wording. The same tendency was found in *Finance*, with a higher percentage of masculine (0,69%) than feminine wording (0,55%). Within *IT*, on the other hand, the results indicate a higher percentage of feminine wording (0,63%), compared to masculine wording (0,50%). When looking at *Transport and Logistics*, the results showed that the average percentage of masculine and feminine wording were equal (0,58% and 0,58%).

Table 1

*Gendered Wording in Norwegian Job Advertisements*

	Number of words in the job ads (mean)	Number of feminine words (mean)	% feminine wording	Number of masculine words (mean)	% Masculine wording	Number of gendered words (mean)	% Total
<b>Finance</b>	382,38	2,12	0,55%	2,64	0,69%	4,76	1,24%
<b>Transport &amp; Logistics</b>	342,02	1,98	0,58%	1,98	0,58%	3,96	1,16%
<b>IT</b>	473,54	2,96	0,63%	2,36	0,50%	5,32	1,12%
<b>Construction</b>	271,64	1,58	0,58%	2,14	0,79%	3,72	1,37%
<b>Total (mean)</b>	367,4	2,16	0,59%	2,28	0,62%	4,37	1,19%

### ***Discussion and Conclusion***

In line with previous research, the findings provide support that job advertisements for male dominated professions in Norway contain more masculine words than feminine words, particularly in the finance and construction industries. In these industries, job advertisements contained substantially more masculine words than feminine words.

However, compared to the study conducted by Gaucher et.al (2011), the evidence for male bias in job advertisements more generally across the four male-dominated industries included in the study is weak. Although the results indicate that masculine wording exists in Norwegian job advertisements, it does not indicate any significant mean difference in the use of feminine- and masculine wording. However, it must be taken into account that some of the translated words did not seem to have the same meaning in Norwegian as in English. We removed thirteen words from the list conducted by Gaucher et. al (2011), and this might have had an effect on the low percentage of gendered wording identified in the Norwegian job advertisements in this sample.

As the associations to words might be different in various languages, it would be interesting to investigate gendered and biased wording in the Norwegian language itself, as one may be able to develop a specific list of words associated with feminine and masculine traits in Norway. Further, the present pre-study is limited to identify the existence of gendered wording in male-dominated occupations, it would therefore also be interesting to investigate this in female-dominated occupations.

### **Study 2: Effects of Gendered Job Advertisements**

As study 1 indicates, there is a slightly higher percentage of masculine wording in job advertisements within male-dominated industries. In study 2, we therefore wanted to investigate the effect, or lack of effect, of male-biased language in job advertisements on job appeal ratings given by potential female job applicants. Hence, in this study, we tested Hypothesis 2-4 that focus on the effects of gendered wording on job appeal ratings given by and the interactive effects of contact person gender and professional distance on this relationship.

## ***Method***

In order to investigate and test our hypotheses, we have chosen a quantitative approach, using an experimental design. Bryman and Bell (2015, p.53) argue that “true experiments tend to be very strong in terms of internal validity”. The experiment is conducted based on previous research on gendered wording and how this affects job seekers (Bem and Bem, 1973; Gaucher et al., 2011; Rho, 2016). As we want to compare behavior between different experimental conditions we chose a between-subject design, where participants were exposed to one of four treatment conditions (Charness, Gneezy & Kuhn, 2012) that we explain further in the section on procedures.

## ***Participants***

197 first-year business students participated in the experiment, which was integrated and conducted in lectures for a course in Organizational Psychology. This course is mandatory for all first-year bachelor students, hence participants represented thirteen different study programs (table 2). Business students are valuable for exploring gender bias in the recruitment process for jobs in male-dominated professions, as many are likely to enter jobs where women have traditionally been underrepresented. The students voluntarily attend the lectures and were not aware of the experiment beforehand. There was no compensation for participating in the experiment.

Table 2

### ***Distribution of Participants***

<b>Measure</b>	<b>Item</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>	Female	86	43,7%
	Male	111	56,3%
	Total	197	100%
<b>Study Program</b>	Bachelor of Business Administration	4	2%
	Creative Industries Management Relator	3	1,5%
	Entrepreneurship	2	1%
	Finance	6	3%
	International Marketing	6	3%
	Communication Management	9	4,6%
	Marketing Management	3	1,5%
	Retail Management	23	11,7%
	Economy (siviløkonom)	2	1%
	Economy and Administration	31	15,7%
	Economy and Business Law	102	51,8%
	Total	6	3%
	Total	197	100%
<b>Age</b>	18-21	114	57,9%
	22-25	59	29,9%
	26-29	15	7,6%
	30+	9	4,6%
	Total	197	100%

### *Procedure*

The Qualtrics Survey Software (Qualtrics) was used both for constructing the experiment and collecting data. We made sure that our study was approved by Norwegian Centre for Research Data (NSD) before we began the data collection, and the approval can be found in Appendix D. According to Kahneman (2011) one may increase the reliability of the results by conducting the survey in the mother tongue of the participants. Following this suggestion, the study was conducted in Norwegian.

Before accessing the study materials in Qualtrics, the participants got a brief introduction to our study. Participants were told our research question was about how organizations can ensure high quality in their recruitment process. However, to avoid revealing our true intent of the study, which was the effect of implicit gender bias in job advertisements, information was kept rather limited.

Once they came into the study platform, participants were randomly assigned to one of four experimental conditions, through the randomization feature in Qualtrics. The four treatment conditions represented the different configurations of the contact person's gender (male vs. female) and the professional distance of this contact (near vs. distant), as specified in Table 3. Male-bias was consistent across conditions, through the use of masculine wording, as is explained further in the paragraphs below.

Table 3

#### *Experimental conditions*

<b>Contact person gender</b>	1. Male, Close	2. Male, Distant
	3. Female, Close	4. Female, Distant
	<b>Contact person professional distance</b>	

Participants had approximately twelve minutes to go through the study materials in Qualtrics. Within each condition, participants were presented with three job advertisements to read and a total of twelve survey questions.

The three job advertisements that study participants were presented with during the experiment were created based on existing advertisements within finance, consulting, and insurance, found on the job search websites finn.no, and nav.no. These sectors were chosen as they are seen to be relevant for business

students. The purpose of using three different ads, and not just one, was to control for possible preferences participants could have for a particular job, based on tasks or company information. Based on social identity theory and brand awareness research, people are more likely to feel attracted to familiar companies (Turban, Lau, Ngo, Chow, and Si, 2001). Therefore, fictive company names were applied, in order to remove associations with real companies. Due to feasibility, we shortened the ads to include 190-200 words, each included a company description, job description, and qualifications. By using the linguistic software NVivo, we identified and removed all female-biased words from the advertisements, while adding male-biased words from the list of gendered words developed by Gaucher et al. (2011). Each advertisement contained 13 male-biased words. Lastly, to minimize the risk of the participants understanding the experiment, we gave each ad a slightly different layout. This linked back to how the study was presented to students before they accessed the study materials.

In going through the job advertisements, participants assigned to condition 1 or 2 were presented with male contact persons: Eivind V. Holm, Martin Dale, and Anders Haugen, while participants assigned to condition 3 or 4 were presented with female contact persons: Eline Holm, Martine Dale, and Alexandra Haugen. Further, participants assigned to condition 1 or 3 were presented with contact persons who were professionally close, including a Team-Leader (teamleder), Head of Customer Centre Department (avdelingsleder kundesenter), or Head of Procurement Department (avdelingsleder innkjøp), while participants assigned to conditions 2 or 4 were presented with professionally distant contact persons, including a Consultant - Recruitment and Selection (konsulent - rekruttering og seleksjon), HR-worker (HR-medarbeider), or Recruitment Consultant (rekrutteringskonsulent). Table 4 summarizes the contact details provided for each job advertisement between conditions.

Table 4

*Contact details by condition*

Condition	Job Ad 1	Job Ad 2	Job Ad 3
1.	Eivind V. Holm Teamleder, Client Service	Martin Dale Avdelingsleder kundesenter bedrift	Anders Haugen Avdelingsleder innkjøp
2.	Eivind V. Holm Konsulent, rekruttering og seleksjon	Martin Dale HR-medarbeider	Anders Haugen Recruitment Consultant
3.	Eline Holm Teamleder, Client Service	Martine Dale Avdelingsleder kundesenter bedrift	Alexandra Haugen Avdelingsleder innkjøp
4.	Eline Holm Konsulent, rekruttering og seleksjon	Martine Dale HR-medarbeider	Alexandra Haugen Recruitment Consultant

Two questions referring to the contact person in each job advertisement were included to ensure that the participants actually took note of the contact person details. Further, questions were included to capture participants ratings of job appeal for each advertisement and their interest in applying for each position. A suspicion check item was added at the end of the survey to check whether participants suspected the true intent of the survey. In this check, participants were asked what they believed had affected their perception of the job advertisements (Gaucher et al. 2011) and were asked to write their answer in a text box below. None of the participants mentioned either gendered wording, language or gender more generally.

### *Measures*

#### *Job Appeal*

Job appeal was measured with Gaucher and colleagues' (2011) 6-item scale, which we translated to Norwegian. As Berkanovic (1980) indicate that any translation of materials needs to be carefully conducted to ensure the quality of the material, the items were translated back-and-forth. The items were scored on a 7-point likert-scale ranging from 1 (totally disagree) to 7 (totally agree).

Table 5

#### *Translation of 6-item scale*

English	Norwegian
"This job is appealing"	"Denne stillingen appellerer til meg"
"I think I could enjoy this job"	"Jeg kunne trives i denne jobben"
"This is not a job I would want" (reverse coded)	"Dette er ikke en jobb for meg (reverse coded)"
"This company would be a good employer"	"Dette er en god arbeidsgiver"
"This job looks interesting"	"Denne jobben virker interessant"
"This company seems like a great place to work"	"Dette virker som et bra sted å jobbe"

#### *Control Variable*

As the course in Organizational Psychology is mandatory for all first-year students, different study areas are represented in the lectures. To control for alternative explanations for the variable Job Appeal we used Study Area as a



control variable. This way we were able to control whether the choice of study program affected the degree of appeal of the advertised jobs for the participants. The control variable was divided into three categories which were as following: 1 = Bachelors of Business Administration (BBA), Finance, Economics (siviløkonom), Economy and Administration, and Economy and Business Law, 2 = Entrepreneurship, International Marketing, Marketing Management, and Retail Management, and 3 = Relator, Communication Management, Creative Industries Management. The studies within category 1 and 2 are seen as most relevant for the advertised jobs, as these studies are specialized in business.

### *Demographic Variables*

To be able to compare the responses between females and males, participants were asked to provide their gender, given the choice of male or female. Also, to reduce the possibility for the participants to understand the experiment, we also included a question about their age. However, age has not been used in the analysis.

### *Statistical Analysis*

SPSS 25 was applied to conduct statistical analysis and to test the hypotheses. Furthermore, to test moderation between variables the 2-way unstandardized Excel-template with simple slope estimates provided by Jeremy Dawson was applied.

### *Outliers and Exclusion*

Our initial sample size consisted of 197 participants in total. In the dataset, the variable “duration in seconds” shows the time used to answer the questionnaire. The data points below 200 (seconds) lie at the low end of the series of values (approximately 3 minutes) and can be considered outliers. Also, as the participants were given 12 minutes (720 seconds) to finish the survey, the data points above 720 lies at the high end of values and are also considered outliers. After removing the outliers, the mean is 404,8 seconds.

Further, we excluded responses from the students in certain study areas (creative industries management, realtors (eiendomsmegling), and communication management (kommunikasjonsledelse)) as the ads were not considered to be appealing for these students. This left us with a sample size of 174 participants.

Due to signs that participants were fatigued by the time they were presented with the third job announcement, we also excluded this advertisement from later analyses. Fatigue was indicated by low internal consistency scores on the Job Appeal measure for Job Ad 3, whereas internal consistency scores were adequate for Job Ad 1 and 2.

#### *Exploratory Factor Analysis and Reliability Analysis*

The measurement for Job Appeal consisted of 6-items from Gaucher, Friesen, and Kay (2011). As it is a multi-item measure, the validity and reliability of the Job Appeal measure was tested using exploratory factor analysis (EFA) and reliability analysis.

When constructs are conceptually close, item contamination represents a challenge, and the discriminant validity might be threatened (Kuvaas, Buch & Dysvik, 2016). As EFA show how the items load on the non-hypothesized factors (Kelloway, 1995) it was used to ensure discriminant validity (Hurley et al. 1997). We conducted principal component analysis and promax rotation method on the multiple scale items across the three job advertisements and the four treatment conditions to decide the item retention. The rules of only considering items with factor loadings above 0.50 (Nunnally & Bernstein, 1994) and cross-loadings below 0.35 (Kiffin-Petersen & Cordery, 2003) was applied.

The EFA revealed that items 3, 5, and 6 from the Job Appeal measure did not show a consistent loading pattern and did not meet the criteria of factor loadings above 0.5 and cross-loadings below 0.35 across the job advertisements and treatment conditions. Therefore, we ran the analysis again including only item 1, 2, and 4 of the Job Appeal measure and the EFA showed that all factor loadings were above 0.50, and there were no cross-loadings above 0.35.

Further, to test the internal consistency of the Job Appeal measure was tested using reliability analysis. The reliability analysis confirmed that item 1, 2, and 4 had good reliability and that the reliability coefficient increased when items 3, 5, and 6 were removed from the measure. Thus, the validity and reliability of the six-item scale were not consistent with the study conducted by Gaucher et al. (2011), and instead the Job Appeal variable was computed based on items 1, 2, and 4.

## ***Results***

In this section, the data analysis and results referring to hypotheses 2-4 will be presented sequentially.

### *Hypothesis 2*

In order to test Hypothesis 2, a one-way ANOVA was used to determine if there exists a statistical difference in the mean value of “Job Appeal” between females and males for each of the job advertisements included in the study. The test found no statistically significant difference in job appeal between male and female participants for Job 1 ( $F(1,172)=.014, p=.905$ ) or Job 2 ( $F(1,172)=1.342, p=.248$ ), across conditions. The results indicate that the male-biased job advertisements presented to study participants were not less likely to appeal to females than males. Accordingly, Hypothesis 2 was not supported.

### *Hypothesis 3 and 4*

Both Hypothesis 3 and 4 were tested using multiple linear regression modeling. To test Hypothesis 3, the dependent variables (Job Appeal\_Job 1; Job Appeal\_Job 2) were regressed onto Contact Gender, with study area as the control variable. To test the moderation predicted in Hypothesis 4, Contact Distance and the interaction term (ContactGender\*ContactDistance) were entered in separate steps into the regression model. Analysis were conducted after splitting the file based on gender, such that results would be presented for females and males separately. Analysis were conducted after splitting the file based on gender, such that results would be presented for females and males separately.

Table 6a  
*Coefficients (Job 1, Female sample)*

Gender:	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
Female	1	(Constant)	5.893	.439		13.417	.000
		study area	-.752	.324	-.262	-2.325	.023
		contact gender	-.254	.281	-.102	-.904	.369
	2	(Constant)	6.019	.472		12.755	.000
		study area	-.768	.325	-.267	-2.361	.021
		contact gender	-.248	.282	-.099	-.879	.382
		contact distance	-.209	.281	-.084	-.745	.458
	3	(Constant)	5.763	.471		12.241	.000
		study area	-.848	.317	-.295	-2.673	.009
contact gender		.433	.399	.174	1.085	.282	
contact distance		.478	.400	.192	1.195	.236	
CGenxCDist*		-1.284	.548	-.468	-2.343	.022	

a. Dependent Variable: Job appeal (items 1,2&4) job 1 across conditions  
 \* contact gender x contact distance

Table 6b  
*Coefficients (Job 2, Female Sample)*

Gender:	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
Female	1	(Constant)	5.109	.553		9.238	.000
		study area	-.138	.407	-.040	-.340	.735
		contact gender	-.206	.354	-.068	-.583	.561
	2	(Constant)	4.940	.594		8.318	.000
		study area	-.118	.409	-.034	-.288	.775
		contact gender	-.215	.355	-.071	-.605	.547
		contact distance	.281	.353	.093	.796	.429
	3	(Constant)	4.856	.613		7.916	.000
		study area	-.144	.414	-.041	-.348	.729
		contact gender	.008	.520	.003	.015	.988
		contact distance	.505	.521	.168	.970	.335
		CGenxCDist*	-.420	.714	-.127	-.588	.559

a. Dependent Variable: Job appeal (items 1,2&4) job 2 across conditions  
 \* contact gender x contact distance

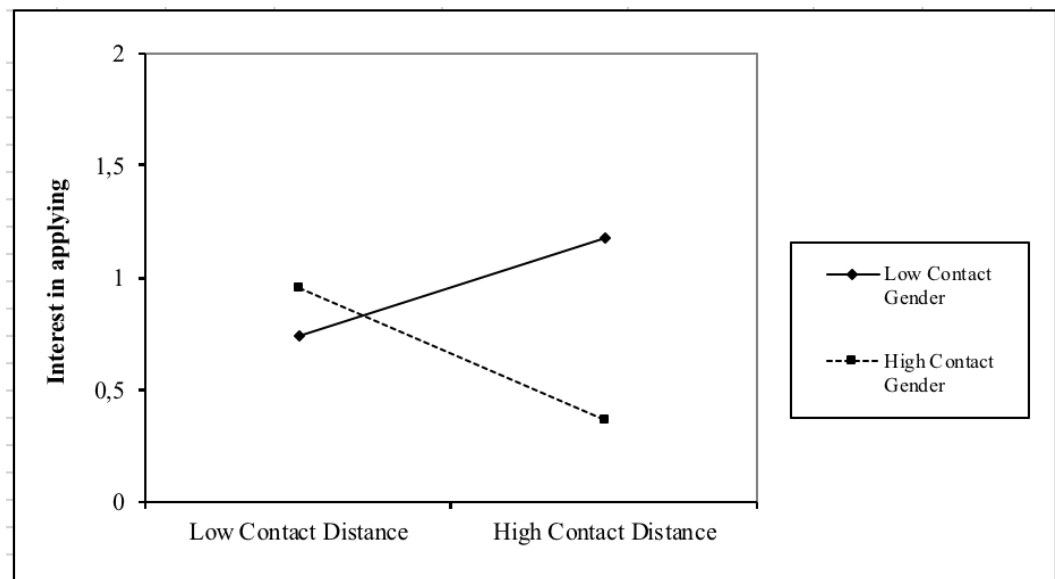
The ANOVA table shows that model 1 and model 3 are significant at a 5% level for job 1  $p < .05$ , but not for job 2. Model 3 with the interaction between contact gender and contact distance accounted for significantly more variance than just contact gender (R2 change = .065,  $p = .022$ ) for job 1.

Findings show that the coefficient for Contact Gender in model 1 (H3) was insignificant for Job 1 ( $B=-.254, p=.369$ ) and Job 2 ( $B=-.206, p=.561$ ) among female study participants. However, in model 3 (H4), the interaction term was significant in the regression equation for Job 1 ( $B=-1.284, p<.05$ ), but not for Job 2 ( $B=-.42, p=.559$ ) in the female sample. For the male sample, no significant interaction effect was found. Thus, hypothesis 3 and 4 was not supported.

We further inspected the moderating pattern of the significant interaction coefficient found in Model 3, Job 1 by plotting the interaction using the 2-way unstandardized Excel template with simple slope estimates provided by Jeremy Dawson (Jeremy Dawson, 2018). The results of this analysis indicate that there is no significant difference in Job Appeal among female study participants when Contact Gender is Female, regardless of if the contact person is professionally distant or not. However, when Contact Gender is Male, Job Appeal among female study participants is significantly lower when the contact person is professionally distant (i.e., an HR manager). The simple slope of the Contact Distance - Job Appeal was negative and significant when Contact Gender was Male (Gradient of simple slope  $=-.85, p<.05$ ). Thus, a significant interaction between the gender and professional closeness of the contact person was identified.

Figure 1

*2-way unstandardized Excel template with simple slope estimates*



## Discussion

Based on the experiment conducted in study 2, the present study does not provide any evidence of differences in job appeal among female and male applicants, when the job advertisement was male-biased. These findings contradict the work of Gaucher et al. (2011), as well as Bem and Bem (1973), Rho (2016), and Estrada et al. (2017). Thus, the results of the present study suggest that gendered wording does not affect potential applicants in Norway. One potential explanation for these results is that gender biased words and its associated gender stereotypical traits may not be the same in the Norwegian language as in the English language. This is in line with the findings in study 1, which indicated that the proportion of masculine words only slightly differed from the proportion of feminine words in job advertisements obtained from male-dominated occupations. As the list of gendered words that were used in both study 1 and study 2 were obtained from previous research and translated to Norwegian by an authorized translator, it must be taken into consideration that there might be other words that are more specifically associated with one or the other gender in the Norwegian language.

Due to the increased focus on gender equality in the Norwegian society, another explanation is that women are less affected by what traditionally has been considered as male-dominated and female-dominated occupations. The decrease in sex-segregation in some occupations is according to Reisel and Teigen (2014) due to changes in women's choice of occupation, and that more and more women are entering typically male-dominated study programs (e.g. engineering, finance, IT, and other technical fields). This indicates that whether people are interested in a job or not, lies in their choice of education. Thus, the effect of the wording alone in the job advertisement might decrease.

When testing for the effect of the contact person's gender on job appeal in the context of masculine wording, no significant effect was found. Thus, the study does not provide any evidence for the effect of the gender of the contact person, holding everything else constant. However, when adding professional closeness of the contact person, the findings showed an interesting effect. The results indicated that the gender and professional closeness of the contact person accounted for significantly more variance than when just looking at the gender of the contact person alone. The findings suggest that there is no significant difference in job

appeal among women when the contact person in the job advertisement is female, regardless of the professional closeness. When the contact person is male on the other hand, job appeal among women seems to be significantly lower when the contact person is professionally distant (e.g. HR manager or recruiter consultant). These findings contradict our hypotheses and suggest an interaction that is opposite of what we expected.

Previous research suggest that line managers often are perceived more positively than HR-managers or recruiters (Fisher et al., 1979; Taylor & Bergmann, 1987;). This is in line with the findings of the present study, which suggests that the closer the contact person is to the advertised position the more likely the advertisement is to be appealing. Further, the findings suggest that potential female job seekers are less interested in a job when the contact person is both male and professionally distant. This may be explained by the similarity-attraction theory, as there is a lack of match between both personal characteristics (gender) and the feeling of closeness to the potential employer or manager (professional distance).

In sum, the results obtained from the present study is quite surprising, as it contradicts earlier research. As no significant effect of masculine wording on job appeal among females was identified, the results of this study indicate that gendered wording does not have the same effect in the Norwegian language as in English. Furthermore, findings suggest that the gender of the contact person has a negative effect on female applicants, only when this person holds a position that is professionally distant. Thus, the present research contributes with the identification of a possible boundary condition. However, further research is required to establish evidence for this effect. As far as we know, this is the first study about gendered wording in Norwegian job advertisements it calls for further research on its existence and effects.

### **Practical Implications**

We have explored whether implicit gender bias (in terms of gendered language) and the gender and distance of the contact person in job advertisements have an effect on females' job appeal ratings for jobs in male-dominated professions. Even though the present research does not provide us with any evidence for the effects of male-biased wording in the Norwegian context, the

findings from study 1 suggest that job advertisements in male-dominated occupations to some degree are male-biased in terms of the wording. Therefore, managers should be aware of the wording they use in job advertisements, especially in male-dominated occupations. By making sure that the language in the advertisement includes less biased wording, one can avoid indirect gender discrimination and ensure gender-neutral advertisements.

Furthermore, this study suggests that women react less favorably to male-biased job advertisements when the contact person is male and professionally distant. This suggests that companies should list an immediate manager as the contact person, as this near professional distance seems to be more appealing to potential applicants regardless of the gender of the contact person. This way one can avoid losing well-qualified candidates in the pre-application phase. Although the present study provides limited evidence on gender bias in the job advertisement, it serves as a valuable theoretical contribution, as it extends the literature on potential gender bias in the way language is used in the recruitment process.

### **Limitations and Future Research**

Despite the important practical implications of this current research, some limitations should be considered when interpreting the results. In our pre-study, the ads we retrieved for transport and logistics were all relatively short and contained few personal characteristics. This may have had an impact on the number of gendered words in these ads. Also, we did not account for varieties of words, such as ambitious or ambition, and therefore the ads might have included a higher number of gendered words than identified in the analysis. As we used the translated work of Gaucher et al. (2011) in Norwegian when looking for gendered words in the Norwegian language, one should consider that other words or synonyms may be more used in Norway. Future research should therefore investigate what concepts are used in Norwegian job ads and see if they are included in Gaucher et al.'s (2011) scheme.

Further, in the second study, the use of fictive company names may have influenced the job appeal for the participants, even though we tried to make the advertisements as realistic as possible. Also, some participants may not have taken



the situation seriously, especially those who were not active job seekers, nor interested in the topic.

We also did not randomize the order of the questions after each of the three advertisements. Due to this, participants may have realized what was waiting next and only skimmed through the ads looking for answers to these questions.

To strengthen our findings, we should have looked at advertisements that were feminine worded or applied a neutral condition to our survey. However, this is something that can be conducted in future research. Also, we have only controlled for the study area, other variables that could have been interesting is preferences and interests of participants, the layout of the advertisements, and work tasks, hence this is another research opportunity.

Furthermore, future research should be aware of whether or not the participants are actual job seekers, as one may assume that job seekers would be easier to manipulate. Even though we tried to frame our advertisements to be interesting for the participants, they were first-year students and we had no guarantee they were active job seekers.

## **Conclusion**

Research on the effects of mechanisms in the recruitment process has increased over the last forty years. Hereunder language in the job advertisements, and gender of the recruiter and potential applicants. However, knowledge about these different aspects of Norwegian job ads should be increased as this knowledge is beneficial for organizations, recruiters, and job seekers.

Organizations clearly benefit from being gender diverse, and both previous research and this current study show that being aware of the crafting of job advertisements may have an effect on who applies to various jobs.

The present study does not provide any evidence that gendered wording alone affects job appeal. Our findings suggest that the gender and professional closeness of the contact person has a significant effect on female job seekers in the context of masculine wording. Therefore, we conclude that gendered wording may be of less significance in the Norwegian language and that cues such as gender and professional closeness of the contact person may be of greater importance. Thus, further investigation of such cues is necessary to establish evidence of their effects and significance. As far as we know, this is the first study

investigating gendered wording in Norwegian job advertisements, and further research on gender bias in the Norwegian language is therefore required. The present study, together with both previous and future research may contribute to more gender-neutral recruitment and less indirect gender discrimination.

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## Appendices

### *Appendix A: List of Gendered Words from Gaucher et al. (2011)*

Masculine words	Feminine words
Active	Affectionate
Adventurous	Child*
Aggress*	Cheer*
Ambitio*	Commit*
Analy*	Communal
Assert*	Compassion*
Athlet*	Connect*
Autonom*	Considerate
Boast*	Cooperat*
Challeng*	Depend*
Compet*	Emotiona*
Confident	Empath*
Courag*	Feminine
Decide	Flatterable
Decisive	Gentle
Decision*	Honest
Determin*	Interpersonal
Dominant	Interdependen*
Domina*	Interpersona*
Force*	Kind
Greedy	Kinship
Headstrong	Loyal*
Hierarch*	Modesty
Hostil*	Nag
Impulsive	Nurtur*
Independen*	Pleasant*
Individual*	Polite
Intellect*	Quiet*
Lead*	Respon*
Logic	Sensitiv*
Masculine	Submissive
Objective	Support*
Opinion	Sympath*
Outspoken	Tender*
Persist	Together*
Principle*	Trust*
Reckless	Understand*
Stubborn	Warm*
Superior	Whin*
Self-confiden*	Yield*
Self-sufficien*	
Self-relian*	

*Note.* The asterisk denotes the acceptance of all letters, hyphens, or numbers following its appearance.

## Appendix B: List of Gendered Words translated to Norwegian

### MASKULINE-ORD

active – AKTIV / HANDLENDE  
 adventurous – EVENTYRLYSTEN / DRISTIG  
 aggress\* – AGGRESSIV / PADRIVER  
 ambitio\* – AMBISJON / AMBISIØS / ÆRGJERRIG  
 analy\* – ANALYTISK / ANALYSERENDE  
 assert\* – SELVHEVDENDE / PÅSTÅELIG / SELVSIKKER / PÅSTÅ / HEVDE  
 athlete\* – ATLET / ATLETISK  
 autonom\* – SELVSTENDIG / AUTONOM / SELVSTENDIGHET / AUTONOMI  
 battle – KRIGERSK / AGGRESSIV / FRAMPÅ  
 boast\* – SKRYTE / SKRYT / STOLTHET / STOLT  
 challeng\* – UTFORDRE / UTFORDRENDE / UTFORDRING  
 champion – FORSVARE / HEIE PÅ / KJEMPE FOR / MESTER / SEIERHERRE  
 compet\* – KONKURRANSE / KONKURRERENDE / KONKURRANSEDYKTIG  
 confident – SELVTILLIT / SELVSIKKER / SELVSIKKERHET  
 courag\* – MOT / MODIG  
 decide – BESTEMME  
 decision\* – HANDLEKRAFT, HANDLEKRAFTIG, BESLUTNINGSDYKTIG  
 decisive – BESTEMMENDE / AVGJØRENDE / FAST  
 defend – FORSVARE / BESKYTTE / VERNE  
 determin\* – AVGJØRE / BESTEMME / BESLUTTSOM / MÅLBEVISST  
 domina\* – DOMINERE / DOMINERENDE / MAKT-  
 dominant – DOMINANT / DOMINERENDE / ENERÅDENDE  
 driven – MÅLBEVISST / MÅLRETTET / INSPIRERT / BESATT / HALSSTARRIG

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### MASKULINE-ORD

fearless – FRYKTLØS / UREDD / MODIG  
 fight – KAMP/ STRID / SLAG  
 force\* – KRAFT / MAKT / STYRKE / TVANG / TVINGE  
 greedy – GRÅDIG / KRAVSTOR / GRISK / BEGJÆRLIG  
 headstrong – STA / ÆRGJERRIG / EGENRÅDIG / UBØYELIG  
 hierarch\* – HIERARKISK / OPPTATT AV RANG / RANGORDNING / RANGSYSTEM  
 hostile\* – FIENDTLIG / UVENNLIG / MOTVILJE / KRIGSHANDLING  
 impulsive – IMPULSIV / SPONTAN / PÅDRIVENDE  
 independen\* – UAVHENGIG / UAVHENGIGHET / SELVSTENDIG  
 individual\* – INDIVIDUELL / EGENARTET / SPESIELL / SÆREGEN  
 intellect\* – INTELLEKT / RASJONALITET / INTELLEKTUELL / RASJONELL  
 lead\* – LEDER / LEDENDE / LEDERTYPE / FOREGANGSFIGUR  
 logic – LOGIKK / LOGISK / LOGIKER  
 objective – OBJEKTIV / SAKLIG / UPARTISK / FAKTAORIENTERT  
 opinion – OPPFATNING / MENING / OPPLYSNING / OPPLYST / INFORMERT  
 outspoken – TALEFØR / ÅPENHJERTIG / FRITTALENDE / UTADVENDT  
 persist – HOLDE FAST VED / STÅ VED / HOLDE UT / STÅ PÅ  
 principle\* – PRINSIPP  
 reckless – HENSYNSLØS / UVØREN / UBETENKSOM / VÅGAL / DUMDRISTIG  
 self-confiden\* – SELVSIKKER / TRYGG / UTADVENDT  
 self-relian\* – SELVTILLIT / SELVSTENDIGHET / SELVSTENDIG / SELVHJULPEN  
 self-sufficien\* – SELVSTENDIG / SELVFORSYNT / SELVDREVEN / SELVTILFREDS  
 stubborn – STA / MÅLBEVISST / STRIDBAR  
 superior – OVERLEGEN / OVERORDNET / HØYERE I RANG  
 unreasonab\* – VANSKELIG / UMEDEGJØRLIG / URIMELIG / IRRASJONELL

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FEMININE-ORD

- agree – VÆRE ENIG / BEHAGE / VÆRE ELSKVERDIG / VÆRE IMØTKOMMENDE
- affectionate – OMSORGSFULL / HENGIVEN / KJÆRLIG / ØM
- child\* – BARN
- cheer\* – GLAD / MUNTER / MEDGJØRLIG / VENNLIG / HYGGELIG / LYS / GLEDE
- collab\* – SAMARBEIDSVILLIG / SAMARBEID / DIPLOMATISK
- committ\* – FORPLIKTE / ENGASJERE / AVTALE / FORPLIKTELSE
- communal – FELLESSKAP / FELLES / OFFENTLIG / SAMHOLD
- compassion\* – MEDFØLELSE / BARMHJERTIGHET / MEDFØLENDE / BARMHJERTIG
- connect\* – FORBINDE MED / KØBLE MED / HA KONTAKT MED
- considerate – HENSYNSFULL / OMTENKSOM / GJENNOMTENKT / ANSVARLIG
- cooperat\* – SAMARBEID / SAMARBEIDSVILLIG / IMØTEKOMMENDE
- depend\* – AVHENGIG / VÆRE AVHENGIG / AVHENGIGHET / USELVSTENDIG
- emotiona\* – EMOSJONELL / FØLELSMESSIG / FØLELSESBETONT
- empath\* – EMPATI / EMPATISK / FORSTÅELESFULL / INNFØLING
- feel – FØLE / FØLELSE / INNFØLING
- flatterable – MOTTAKELIG FOR SMIGER / FORFENGELIG
- gentle – MILD / MYK / BEHAGELIG / LETT / FORSIKTIG
- honest – ÆRLIG / ÅPEN / SANNFERDIG / HEDERLIG / RETTSKAFEN
- interpersonal – MELLOMMENNESKELIG / GJENSIDIG
- interdependen\* – GJENSIDIG FORHOLD / GJENSIDIG AVHENGIGHET
- interpersona\* – MELLOMMENNESKELIGE FORHOLD

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FEMININE-ORD

- kind – SNILL / VENNLIG / IMØTEKOMMENDE / GOD / HENSYNSFULL / ELSKVERDIG / VELVILLIG / KJÆRLIG
- kinship – SLEKTSKAP / LIKHET / FELLESSKAP / SAMHOLD
- loyal\* – LOJAL / LOJALITET / HENGIVEN / LYDIG / HENGIVENHET / LYDIGHET
- modesty – BESKJEDENHET / ANSTENDIGHET / BLUFERDIGHET / SØMMELIGHET
- nag – GNÅL / MAS
- nurtur\* – OPPDRA / OPPFORSTRE / NÆRE / TA ANSVAR FOR
- pleasant\* – BEHAGELIG / HYGGELIG / OPPOFRENDE / GLAD / PEN
- polite – HØFLIG / DANNET / OMTENKSOM / OMSORGSFULL
- quiet\* – STILLE / LAVMÆLT / FORDRINGSLØS
- respon\* – MOTTAKELIG / LYDHØR / ENGASJERT / VELVILLIG / TILPASNING
- sensitiv\* – FØLSOM / FINTFØLENDE / NÆRTAKENDE / VAR / KJENSLEVAR
- submissive – MEDGJØRLIG / UNDERKASTENDE / UNDERDANIG
- support\* – STØTTE / STØTTENDE / UTFØRE / STILLE OPP
- sympath\* – MEDFØLELSE / INNLEVELSE / FORSTÅELESFULL / MEDLIDENHET
- tender\* – ØM MYK / SPED / SKJØR
- together\* – SAMMEN / SAMHOLD / FELLESSKAP
- trust\* – TILLIT / STOLE PÅ / TRYGG / TRYGGHET
- understand\* – FORSTÅ / FORSTÅELSE / FORSTÅELESFULL
- warm\* – VARM / MOTTAKELIG / EMPATISK / SYMPATISK
- whin\* – JAMRE / KLAGE / SUTRE / KLAGING / JAMMER / MAS
- enthusias – IVER / IVRIG / ENTUSIASME / ENTUSIASTISK / STØTTE / STØTTENDE
- inclusive – INKLUDERE / INKLUDERENDE / SAMHOLD / FELLESSKAP / SOLIDARITET / SOLIDARISK
- yield\* – YTE / VIKE / BØYE SEG / GI SEG / VÆRE MEDGJØRLIG / BØYE AV / STÅ TILBAKE FOR
- shar – DELE / HA FELLES / DELE BRØDERLIG / DELE RETTTFERDIG

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### *Appendix C: Words removed from Study 1*

#### *Masculine:*

- Decisive = bestemmende/avgjørende/**fast**
- Lead = **leder**/ledende/ledertype/foregangsfigur
- Courage\* = **mot**/Modig
- Active = **aktiv**/handlende
- Force\* = **kraft**/makt/styrke/tvang/tvinge
- Independen\* = **uavhengig**/uavhengighet/selvstendig

#### *Feminine:*

- Commit\* = forplikte/engasjere/**avtale**/forpliktelse
- Interpersonal = mellommenneskelig/**gjensidig**
- Considerate = hensynsfull/omtenksom/gjennomtenkt/**ansvarlig**
- Sensitiv\* = følsom/fintfølende/nærtagende/**var**/kjenslevar
- Communal = fellesskap/felles/**offentlig**/samhold
- Quiet\* = **stille**/lavmælt/fordringsløs
- Kind = snill/vennlig, imøtekommende/**god**/hensynsfull/elskverdigg/velvillig/kjærlig

**Bold words** = removed words

\* See appendix B

## **Appendix D: Approval from Norwegian Centre for Research Data (NSD)**



Elizabeth Solberg  
Nydalsveien 42  
0442 OSLO

Vår dato: 13.04.2018

Vår ref: 59669 / 3 / LAR

Deres dato:

Deres ref:

### **Vurdering fra NSD Personvernombudet for forskning – ikke meldepliktig**

Personvernombudet for forskning viser til meldeskjema mottatt 07.03.2018 for prosjektet:

59669	<i>Gender Bias in Job Advertisements</i>
Behandlingsansvarlig	<i>Handelshøyskolen BI, ved institusjonens øverste leder</i>
Daglig ansvarlig	<i>Elizabeth Solberg</i>
Student	<i>Randi Druglimo</i>

#### **Hva vurderer vi?**

Vi vurderer om prosjektet er omfattet av melde-/konesjonsplikt og om prosjektet lar seg gjennomføre i henhold til lovverket. På den neste siden er vår vurdering av hvorfor prosjektet ikke er meldepliktig.

#### **Når gjelder meldeplikten?**

Meldeplikten gjelder kun prosjekter som skal behandle personopplysninger elektronisk eller systematisere sensitive opplysninger manuelt, ordnet etter navn eller fødselsnummer.

#### **Hva må du gjøre dersom du likevel skal behandle personopplysninger?**

Dersom prosjektopplegget endres og det likevel blir aktuelt å behandle personopplysninger, må du sende inn nytt meldeskjema.

#### **Vi avslutter oppfølging av prosjektet**

Siden prosjektet ikke er meldepliktig avslutter vi all oppfølging av prosjektet.

Se våre [nettsider](#) eller ta kontakt dersom du har spørsmål. Vi ønsker lykke til med prosjektet!

Vennlig hilsen

Marianne Høgetveit Myhren

Lasse André Raa

*Dokumentet er elektronisk produsert og godkjent ved NSDs rutiner for elektronisk godkjenning.*

## Personvernombudet for forskning



### Prosjektvurdering - Kommentar

---

Prosjektnr: 59669

#### FORSKNINGSETIKK

Personvernombudet bemerker at det uavhengig av meldeplikten vil være forskningsetiske problemstillinger knyttet til elementet av desepsjon («lureforskning») som inngår i prosjektet. Vi oppfordrer studentene til i samråd med veileder å gjøre en grundig etisk vurdering av hva slags informasjon som bør gis deltakerne i forkant og eventuelt i etterkant av undersøkelsen. Vi anbefaler videre at det ikke registreres opplysninger som ikke skal brukes i prosjektet. Les gjerne mer om desepsjonsforskning på NESHs nettsider:

<https://www.etikkom.no/FBIB/Introduksjon/Metoder-og-tilnærminger/Desepsjonsforskning/>

#### MELDEPLIKT

Det oppgis i meldeskjema at det vil innhentes data gjennom en nettbasert spørreundersøkelse. Besvarelser vil ikke kobles til IP-adresser. På bakgrunn av spørreskjema vedlagt meldeskjema, vil det heller ikke registreres indirekte identifiserende bakgrunnsopplysninger.

Vi kan dermed ikke se at det behandles personopplysninger med elektroniske hjelpemidler, eller at det opprettes manuelt personregister som inneholder sensitive personopplysninger. Prosjektet vil dermed ikke omfattes av meldeplikten etter personopplysningsloven.

Det ligger til grunn for vår vurdering at alle opplysninger som behandles elektronisk i forbindelse med prosjektet er anonyme.

Med anonyme opplysninger forstås opplysninger som ikke på noe vis kan identifisere enkeltpersoner i et datamateriale, verken:

- direkte via personentydige kjennetegn (som navn, personnummer, epostadresse el.)
- indirekte via kombinasjon av bakgrunnsvariabler (som bosted/institusjon, kjønn, alder osv.)
- via kode og koblingsnøkkel som viser til personopplysninger (f.eks. en navneliste)
- eller via gjenkjennelige ansikter e.l. på bilde eller videoopptak.

Personvernombudet legger videre til grunn at navn/samtykkeerklæringer ikke knyttes til sensitive opplysninger.

*Appendix E: Preliminary Thesis Report*

Preliminary Thesis Report  
**Gender Bias in Job Advertisements**

**Hand-in date**

15.01.2018

**Examination code:**

GRA 19502

**Campus**

BI Norwegian Business School, Oslo

**Program**

Master of Science in Leadership and Organizational Psychology

**Supervisor**

Elizabeth Solberg

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## 1.0. Introduction

The skewed distribution of men and women in certain professions is a reality in Norway (Statistisk Sentralbyrå, 2016). In this sense, we are interested in why this distribution is skewed and what mechanisms that might affect the proportion of women in typical male-dominated professions. From a business perspective, gender diversity is vital to any organization (Mor Barak, 2014). A Gallup study of over 800 companies in the retail and hospitality industries, found that gender-diverse teams had superior financial performance and were more competitive compared to single-gender teams (Badal, 2014). The reason for this is claimed to be the contrasting viewpoints, market insights, and ideas that men and women have. Furthermore, attraction and retention of talented women is easier when the organization is gender diverse (Badal, 2014). The value of being gender diverse was supported by a McKinsey report from 2015, where the top quartile of 366 public companies were 15% more likely to perform better financially than the national industry mean (Hunt, Layton & Prince, 2015).

Gender bias and its possible consequences has mainly been investigated in selection processes (e.g. Kmec, 2005; van den Brink, Brouns & Waslander, 2006). However, there is also growing evidence that gender bias often occurs already in the pre-application stage through cues in the job advertisements. Knowledge about male and female job seekers' preferences can be useful, as it indicates whether one or both genders find the job appealing (Barbulescu & Bidwell, 2013). The present study increases the understanding of why similarly qualified men and women would apply to different jobs.

Research on gendered wording centers around the choice and use of words and its effect on men and women. Specifically, gendered wording has been investigated in terms of job advertisements with focus on how different words appeal differently to men and women (e.g. Bem & Bem, 1973; Gaucher, Friesen & Kay 2011; Mastromoro, 2013; Rho, 2016; Estrada, Leduc, Messer, Pookote, and Thakur, 2017). While there is growing evidence that the use of masculine language in job advertisements discourage female applicants, little empirical work has examined the possible boundary conditions (i.e., moderators). Even though there is evidence for the existence and effect of gendered wording in job advertisements, this has mainly been studied in English speaking countries, such as the U.S and Canada. Therefore, we are

interested in whether this effect also occur in in the Norwegian context. Additionally, we will investigate other cues, such as the gender and professional distance of the contact person.

Thus, our research question is:

*What triggers in job advertisements affects the decision of female job seekers to not apply to a male-biased job advertisement in Norway?*

## **2.0. Literature Review**

### **2.1. Gender and jobs**

Based on an integrative theory of why women possibly apply to other jobs than men, Barbulescu and Bidwell (2013) found that men are more likely than women to apply to finance and consulting jobs, and that women are more likely to apply to general management positions. Women have been found to be evaluated less favorably than men in line jobs in a large financial service company, as these were seen as more strongly male-dominated positions than e.g. staff jobs (Lyness & Heilman, 2006). Pazy and Oron (2001) reported similar findings when examining high-ranking military officers, and found that women were classified as less competent. The low identification women experience with stereotypical masculine jobs, and low expectations of job offers in such jobs, are some of the reasons behind women's preferences in job choices (Barbulescu & Bidwell, 2013). In other words, they established that the job seekers' gender and the gender stereotypicality of the job affected their expectations about getting a job offer. According to Anthony (2004) nursing is an example of a profession that has evolved into a stereotypical female role. Furthermore, she claims that gender bias contributes to perpetuating the traditional gender roles, and is a hinder for recruiting men into the profession. MacIntosh (2002) claims that increased awareness of gender issues and avoidance of gender biased language can result in empowered professionals and increased gender diversity. Cejka and Eagly (1999) found that job seekers perceived that success in a specific gender dominated job required matching gender stereotypical attributes.

Segregation is a fundamental process in social inequality, as groups experience differential treatment based on their characteristics (Reskin, 1993). Furthermore, sex segregation refers to the concentration of men and women in



different occupations (Gross, 1968). According to Reskin (1993), the sex composition of the labor force, the superiority of occupational distinctions and the sizes of occupations, can be indicators of the quantity of sex segregation, however there has been a decline in sex segregation in many industrialized countries since 1970. But, due to social and economic forces, some occupations are still dominated by either sex (Reskin, 1993). Teigen (2002) propose that sex segregation in management positions can be explained by both supply- and demand theory. According to supply theory, the gender structure is created by gender differences in occupational choices and ambitions. The demand theory emphasize how some organizations favour men while disfavoring women (Teigen, 2002), and propose that sex segregation in management positions is shaped by the gender biased recruitment practices and norms (Collinson & Hearn, 1996).

In modern organizations, a central feature is the trend for men and women to work in systematically divergent industries and occupations, this is known as gender segregation (Barbulescu & Bidwell, 2013). In search for an explanation to this phenomenon, research has focused on the employer's selection of whom to hire. Nonetheless, gender segregation may also be a consequence of women's and men's choices about which jobs to apply to. Thus, it may be a result of the recruitment process, which can be seen as the pre-application stage. Recruitment can be defined as "the process of attracting individuals on a timely basis, in sufficient numbers, and with appropriate qualifications to apply for jobs with an organization" (Mondy & Mondy, 2014, p.134). Mostomoro (2013) argue that recruitment is one of the first barriers for applicants to overcome potential stereotype and discrimination. The language used in job advertisements can be seen as the starting point for where social interactions between job seekers and employers initially occur (Rho, 2016). This is a two-way interaction where both the recruiter and the job seekers have biased expectations that further will lead to biased evaluations (Ridgeway, 2011).

## **2.2. Gendered Wording**

Language can be associated with either sex, and can be viewed as either feminine or masculine, thus it is gendered (Mastromoro, 2013). However, the use of stereotypical gendered language often goes unnoticed, as it is widely accepted and embedded within the structure of a society (Gaucher, Friesen and Kay, 2011). Social dominance theory (SDT) propose that inequalities among groups are reinforced by

institutional-level mechanisms (Sidanius & Pratto, 2001), further Gaucher et al. (2011) identify gendered wording as one of these mechanisms. Gaucher et al. (2011) establish that gendered wording in job advertisements, whether intentional or unintentional, affected gender inequality when employers announced for new hires.

In Norway, it is prohibited by law (The Equality and Anti-Discrimination Act, 2018, § 6) to use language that explicitly indicates a preference for applicants of a specific sex. However, as described by Rho (2016) in the US context, the process behind creating the advertisement may nonetheless contribute to gender inequality, due to implicit rather than explicit bias. Gorman (2005) found in her study that when the job advertisements include a great amount of stereotypically masculine characteristics, there was a smaller proportion of female new hires, and that the female proportion of new hires increased when the criteria included more stereotypically female traits. It has been shown that some words currently appeal to men and some appeal to women (Gaucher et al., 2011) and further sex-biased wording may actually discourage the job seekers from applying to jobs even though they are qualified (Bem & Bem, 1973). Horvath and Sczesny (2016) supports these results and found that women were less likely to apply for leadership positions when the wording in the ads were masculine loaded. Gaucher et al. (2011), argued that this is due to female job seekers perception of fit within a certain area, and identified belongingness as a mediator between masculine wording and job appeal. When masculine wording is prominent in job advertisements, women's perception of belongingness also tends to decrease. In line with the work of Bem and Bem (1973), this indicates that gendered wording has a greater effect on women than men. Maass, Milesi, Zabbini, Stahlberg (1995) describes how language plays an important role in maintaining and transmitting stereotypes and use the linguistic intergroup bias (LIB) model to describe systematic bias in language use, and how this can contribute to the perpetuation of stereotypes about in-groups and out-groups.

### **2.3. Stereotypes and Gender Bias**

Implicit bias refers to attitudes and stereotypes that unconsciously affects our judgement and impression formation, thus they can result in behaviour that deviate from a person's settled beliefs (Greenwald & Krieger, 2006). Heilman (2012) defines stereotypes as "generalizations about groups that are applied to individual group members simply because they belong to that group". Whereas gender stereotypes are

beliefs about how women and men typically are. According to Heilman (2012) and “the lack of fit” model men are typically described with agentic traits (e.g. dominant, ambitious and independent), whereas women’s stereotypical attributes is characterised by being communal (e.g. helpful, kind and understanding). Both genders are seen as lacking what is believed to be common for the other sex, in other words descriptive gender stereotypes tend to be oppositional (Heilman, 2012). Furthermore, studies have proved that descriptive stereotypes are found to be consistent across culture, time and context, and that they serve as heuristics for forming impressions about people (Heilman, 2012). Thus, people can be viewed based on the gender group to which they belong, hence the impression may not fit the person. In work settings such beliefs are only problematic when negative expectations are related to performance, e.g. when there is a “lack of fit” between the attributes required to succeed in traditionally male occupations, and a woman’s attributes (Heilman 1983, retrieved from Heilman 2012). Further, the model suggests that these negative performance expectations, which are based on stereotypes, prompt cognitive distortions that form the basis of gender bias. There is evidence that the degree of the perceived lack of fit affect the amount of bias in the recruitment (Gaucher et al., 2011).

Prescriptive gender stereotypes describe how men and women *should be*, in terms of appropriate and inappropriate attributes and behaviors (Heilman, 2012). Hence, they function as norms, and thus neglecting these gender prescriptions has consequences in terms of social disapproval and negativity (Rudman & Glick, 2001). Studies have found that females that violate these stereotypically prescribed attributes are regarded less psychologically healthy, considered cold and are disliked (Heilman, 2012). Furthermore, the same effect is found to apply to men as behavior that contradicts the stereotype often are perceived as passive and wimpy and are less respected (Heilman, 2012). As both men and women experience penalties when violating gender stereotypes, the idea about prescriptive gender stereotypes leading to gender bias is further supported.

People also tend to see themselves based on their membership in any number of social groups. This is what Sinclair, Hardin and Lowery (2006) refers to as self-stereotyping, a function of cognitive associations and social-identity salience. While the phenomenon of stereotyping is widely researched in evaluations of others, little is known about how individuals stereotype oneself (Sinclair et al., 2006). When self-stereotyping, individuals see themselves as possessing the characteristics and

behaviours that are associated with the in-group (Oswald & Chapleau, 2010). This gender bias self-stereotyping seems to have a stronger effect for women than for men (Lorenzi-Cioldi, 1991).

When two individuals categorize the self and the other by e.g. gender, stereotyping and in-group preferences is the underlying mechanisms (Rho, 2016). According to shared reality theory, the shared perspective held among people within a social group is a result of constrained individual beliefs and interpersonal connections (Sinclair et al., 2006). Hence, the “shared reality” structures individual beliefs and social relationships, and individuals see themselves as they do since significant others share their self-views. This activation and use of interpersonal relationships was supported by Hinkley and Andersen (1996) whom found that self-evaluation changed in transference with a new person. In line with the cognitive accessibility theory, the stereotype one applies to oneself depends on the most accessible social group membership (Sinclair et al., 2006). Based on the shared reality theory, Sinclair et al. (2006) further propose that the relationship between stereotypes and self-stereotypes are mediated by the perceived evaluation of significant others.

Social identity theory propose that individuals identify with and like those who are similar to themselves (Ashforth & Mael, 1989). According to the similarity-attraction view, demographic similarity, such as gender, leads to a perception of behavioural similarity, which further leads to interpersonal attraction. Jackson, Brett, Sessa & Cooper (1991) argues that this effect will be prominent in recruitment processes, as job seekers are more likely to be attracted to organizations where members are similar to themselves.

### **3.0. Theory and Hypotheses**

#### **3.1. The Existence of Gendered Wording**

Based on previous research on masculine and feminine words and gender differences in the language, Gaucher et al. (2011) developed a list of words that appeals to either men or women (Appendix A). Some of the words associated with male stereotypes are words such as leader, competitive, dominant, individualistic, and committed, while examples of feminine stereotypic words are support, understand, interpersonal, ambitious, and assertive. This list provide evidence for the existence of gendered (or sex-biased) words in the English language, and the Norwegian company Master Management Norge AS, translated the list to Norwegian when creating the

psychological test “OPTO” which is certified by DNV GL (Appendix B). However, the existence of gender bias words has not been investigated in job advertisements in Norway. As the list developed by Gaucher et al. (2011) have been certified translated, we expect to find evidence for the existence of gender bias words in Norwegian job advertisements, thus we hypothesize as following:

*H1*: Job advertisements within male-dominated occupations contain more masculine words than feminine words.

### **3.2. The Effect of Gendered Wording**

In 1973, Bem and Bem (1973) investigated whether gendered wording led to discrimination in the recruitment process. Their finding indicates that sex bias in job advertisements does discourage both men and women from applying to “sex-opposite” jobs. When the job advertisement was manipulated to include a large number of masculine words, only 5% of the participating women were interested in the job. When considering men, the findings indicated that as much as 30% were interested in the job, even though the job advertisement were manipulated by feminine wording (Bem & Bem, 1973). Thus, gendered wording seems to have a greater impact on women than men. A similar study was conducted by Estrada, Leduc, Messer, Pookote, and Thakur (2017), whom found that re-wording of job advertisements, by including more feminine words, increased the likelihood of women to apply. However, in contrast to Bem & Bem’s (1973) findings, Estrada et al. (2017) found that the increase in feminine words in the job advertisement did not have an effect on the number of male applicants. Based on the identified sex-biased words, and building on Bem and Bem’s (1973) findings, Gaucher et al. (2011) examined the existence of gendered wording in job advertisements in Canada. The results indicated that job advertisements in male-dominated occupations, such as plumber, mechanic, and computer programmer, contained a larger amount of masculine words compared to the presence of feminine words in female-dominated occupations, such as nurse, HR, and bookkeeper (Gaucher et al., 2011). Further, they found that people have a tendency to assume that an occupation is more male-dominated when the wording in the job advertisement is masculine, and that women find these jobs less appealing than men. This was also later confirmed by Rho (2016). Based on these findings, we expect that gendered wording in job advertisements will have an effect on female job seekers interest in applying for a position in Norway, and

that there is a direct relationship between the gendered wording and job interest. Specifically, we hypothesize as following: *H2a*: Female job seekers are less likely to apply for a position when the job advertisement is male-biased. *H2b*: Female job seekers are more likely to apply for a position when the job advertisement is unbiased (neutral).

### **3.3. Gender of the Contact Person**

Previous research has provided evidence that applicants of the same gender as the recruiter are more likely to get hired, due to in-group preferences (Gorman, 2005). However, the research on the effect of the recruiter's gender on job applicants is limited. The most prominent research of this specific issue was conducted by Rho (2016). In her study, she found that applicants are more likely to be of the gender of the contact person specified in the job advertisement (Rho, 2016). A similar study was conducted by Estrada et al. (2017), but their findings did not show a significant effect of the gender of the contact person. Based on the limited evidence of the effect of the contact person's gender in the pre-application phase, the current research will explore this further in typically male dominated occupations. We expect the gender of the contact person to moderate the effect of gendered wording on job interest. Thus, we developed the following hypotheses:

*H3a*: Female job seekers are less likely to apply for a position when the contact person is male.

*H3b*: Female job seekers are more likely to apply for a position when the contact person is female.

### **3.4. Professional closeness**

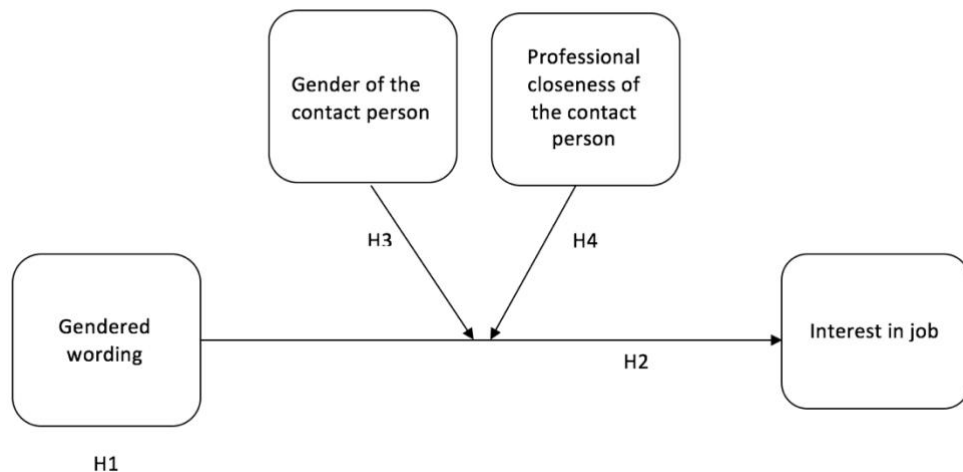
Rho's (2016) study provides evidence that job seekers are more likely to show interest in the job, when they are of the same gender as the contact person. However, little is known about other aspects of the recruiter that might influence job seekers in the pre-application stage. Sinclair et al. (2006) provides evidence that the perceived expectations of close versus distant others can serve as the basis self-stereotyping and counter stereotypical thinking. Individuals tends to evaluate the opinions of close others as more important and more accurate than distant others (Sinclair et al., 2006). Thus, one expects distant others to evaluate oneself based on stereotypical thinking, while close others do not. Taking this into

account, we expect both the gender of the contact person and the perceived expectations of professional closeness to the contact person to influence women’s interest in the job. When the contact person is female and close in terms of professional distance, we expect a positive effect on female job seekers job appeal. Thus, we expect female and close contact persons to trigger counter-stereotypical beliefs and promote female applicant interest in a position, even when the advertisement is male-biased. Specifically, we expect professional closeness together with the gender of the contact person to moderate the effect of gendered wording on job appeal. To investigate this, we developed the following hypotheses:

- H4a*: Female job seekers are less likely to apply for a position when the contact person is male and close in terms of professional closeness.
- H4b*: Female job seekers are more likely to apply for a position when the contact person is female and close in terms of professional closeness.

#### 4.0. Method

Based on the research conducted by Bem and Bem (1973), Gaucher et al (2011), Rho (2016), we will conduct a quantitative analysis, consisting of one archival study and one experiment, in order to investigate the existence of gendered wording in Norwegian job advertisements and the effect of gendered wording on potential job seekers. Additionally, we will test two moderators; gender of the contact person and the professional distance of the contact person.



### 4.1. Study 1: Archival Analysis

To examine the existence of gendered wording in Norwegian job advertisements, we will analyse existing job advertisements. By using descriptive content analysis, we will investigate the percentage of gendered wording in existing online job advertisements.

#### Sample

The sample of job advertisement will be selected based on typically male dominated occupations (e.g. finance). The job advertisements will be obtained from the two largest job search websites in Norway, Finn.no and NAV, from the last month. We expect to collect between 150-200 job advertisements.

#### Analysis

After the job advertisements are collected, we will analyse each job advertisement text and identify the number of gender biased words in accordance with the list developed by Gaucher et al. (2011), translated to Norwegian by Master Management Norge AS. Using content analysis each advertisement will get feminine and masculine scores, relative to the total number of words in the job advertisement text.

### 4.2. Study 2: Experiment

To examine the effect of gendered wording on female job seekers interest in applying for the advertised job, we will conduct an experiment, using within-subjects design. The experiment will contain eight treatment conditions, representing the different configurations of wording (masculine versus neutral), contact person (male versus female), and professional distance of this contact (near versus distant).

Contact person	Male Near Masculine	Male Distant Masculine	Male Near Neutral	Male Distant Neutral	Professional distance of contact person
	Female Near Masculine	Female Distant Masculine	Female Near Neutral	Female Distant Neutral	
Ad language					



### **Sample**

The sample will consist of undergraduate business students in Norway. These students are valuable for exploring gender bias, as they are likely to enter jobs where women have traditionally been underrepresented. The sample will be randomly assigned to the eight different treatment conditions, each containing three different job advertisements to contain for any personal work preferences.

### **Procedure**

Participants will be told that the study examine a topic that is not obviously related to psychology or gender bias. Further, each participant will be provided an URL to the experiment. First, they will be asked to specify their gender, age and their academic major. Then, the manipulated job advertisements will be presented one-by-one and the respondents are asked to rate their interest in applying for each position. Additionally, to further mislead the focus of the research topic, one or more questions regarding their future careers will be added between each ad.

### **Analysis**

In the analysis male-participants will be excluded, as we are interested in the effects of male-dominated language on women.

## **5.0. A plan for master's thesis progression - 2018**

- **January 15th:** Hand in “preliminary thesis report”
- **Week 3:** Send application to NSD
- **Week 3 + 4:** *Study 1 - Archival Analysis*
  - Collect advertisements from male-dominated occupations.
- **Week 5, 6, 7:** *Study 1 - Archival Analysis*
  - Analysis of gendered language
  - Writing out the findings.
- **Week 8, 9, 10, 11, 12:** *Study 2 - Experiment*
  - Develop the experiment material
  - Conduct the experiment
- **Week 13: Easter break**
- **Week 14 + 15: GRA2236 Creativity in Individual, Group and Organization**
- **Week 16 + 17:** Analysis and results

- **Week 18 + 19: Exam prep**
- **Week 20, 21, 22, 23:** Analysis and results
- **Mid June - Mid July:** Hand in first draft of Master's thesis to Elizabeth (supervisor)
- **Mid July - Mid August:** Read through final draft, proof reading by acquaintances and make any corrections.
- **Sometime between 15.08.18 and 01.09.18:** Hand in final master's thesis

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