GRA 19502

Master Thesis

Unconscious Bias Against Introverts in the Recruitment and Selection Process

Navn:	Vilde Marie Lie Braathen, Martine Waller Sørensen

Start: 02.03.2017 09.00

Finish: 01.09.2017 12.00

Martine Waller Sørensen
Vilde Marie Lie Braathen

Unconscious Bias Against Introverts in the Recruitment and Selection Process

Hand-in date:

01.09.2017

Programme:

Master of Science in Leadership and Organizational Psychology

Acknowledgements

Content

Abstract

The current study is an attempt to expand upon the limited research area of unconscious bias against certain personality types that may emerge during the employment interview. We proposed that an extraverted personality type would be favoured in the employment interview, and this was based on the notion that the interview situation, which is inherently a social interaction, is arguably better suited for an extraverted personality type than an introverted personality type. By means of a quantitative study - in which data was collected through an online survey, and then analysed using multivariate analysis of variance - we attempted to examine the extent to which such an unconscious bias against the introverted personality type actually exists, and whether degree of interview structure can be employed as a means to reduce the effect of such an unconscious bias. Moreover, given that HR and recruitment personnel are trained to ignore irrelevant cues about personality, we also wanted to examine this further by comparing the ratings of a HR and recruitment personnel group with a general population group. The results of the study gave no direct indication of the existence of such an effect of unconscious bias against introverts; however, we found evidence suggesting that the use of a structured interview was beneficial regardless of personality type. As for the two experimental groups, the results indicated that the HR and recruitment personnel are more balanced in their ratings across the experimental conditions, whereby the general population seem more likely to be influenced by irrelevant personality cues. The implications of the study for theory and practice, potential weaknesses, and suggestions for future research are discussed.

Keywords: *unconscious bias, personality, personality attributions, social stereotypes, Five-Factor Model, introversion, extraversion, employment interview, structured interview, unstructured interview, job analysis, recruitment and selection, impression management*

Introduction

Unconscious bias is a popular topic, one that has gained extensive research in the field of organisational psychology, especially in regard to the recruitment and selection process. However, it proves rather consistent that research in this area has been somewhat restricted to the more visible characteristics of an applicant (e.g., gender, age, ethnicity, handicap, race, appearance, etc.), and how these characteristics unconsciously – or consciously – influence whether or not an applicant is considered a strong, preferential or suitable candidate for a specific job.

However, what about invisible characteristics? What about personality? As Huffcutt, Culbertson and Weyhrauch (2013) argue, there might be more complex "cause-effect chains" that may cause applicants to not be capable of presenting a true picture of themselves or their qualifications. This issue has received insufficient attention in the literature (Huffcutt et al., 2013). It appears to be a general perception that an extraverted personality type is better suited for a number of different job positions, especially managerial positions. For instance, in the American society and workplace, extraverts are often perceived as superior to introverts (Condon, 2015). A possible reason for a misperception in hiring decisions could be traced back to the interview situation - how the applicant presents himself or herself, and degree of interview structure or techniques used - which itself is arguably better suited for extraverted personalities. Extraverts tend to perform better in job interviews as they do not need as much time to think before answering questions, and also, they tend to make better first impressions. Introverts on the other hand might come off as more shy and reticent, and need more time for reflection before answering questions (Cain, 2012). Moreover, research has shown that people who are talkative, and fast talkers (typical traits of extraversion), are rated as both more competent, interesting, likable, smarter, and more desirable as friends, opposed to slow or more quiet and reserved talkers (Condon, 2015).

Being under the influence of such unconscious biases may cause recruitment personnel to hire the extravert candidate who excels in selling him or herself, rather than the slightly more reclusive introvert who perhaps could in fact end up doing a better job; as such, this unconscious bias against introverts may create a society in which their talent is wasted. According to research, extraverts make up

approximately two thirds of the population, and in line with this, one could assume that most organisations have a somewhat similar distribution of extraverted and introverted employees - and they need them both. Having both extraverted and introverted employees may contribute multiple benefits with their complementary personalities, in the same way as different skill sets and competencies; thus, recruitment and hiring personnel should be careful in their hiring decisions to avoid the risk of creating an extravert-dominant workplace, as this could potentially suppress or neglect the introverts and all they have to offer.

Literature Review

The aim of this chapter is to provide a theoretical basis for our hypotheses. This part will first focus on unconscious bias, by exploring relevant literature related to the concept, and discuss some of the potential antecedents that may lead to unconscious biases during the employment interview. We further provide a definition of personality, extraversion and introversion, and the Five-Factor Model, and discuss the implications of what Cain (2012) labels "The Extrovert Ideal", which is a tendency in the western society to favour an extraverted personality. A discussion of the recruitment and selection process will follow with an emphasis on the importance of a job analysis as a foundation for a more bias free and non-discriminatory recruitment process. Last, but not least, a discussion of the use of employment interview and degree of interview structure will be discussed, whereby higher degree of interview structure can be seen as a remedy for the effect of unconscious bias.

Unconscious Bias

Unconscious bias refers to mental shortcuts rooted in pre-established filters, i.e., experiences, perceptions, interpretations, preferences, or assumptions, developed throughout our lives, which operates automatically outside our conscious awareness or control (Kahneman, 2012). Although these shortcuts might be quite valuable and effective in that they allow for our brain to recognise and act on patterns - rather than spend processing capacity on interacting with everything all the time as if it was new information (Kahneman, 2012; Nichols, 2013) - they can also pose challenges. When encountering unfamiliar situations or people (e.g. the employment interview), our brain tend to trigger these pre-established filters to unintentionally interfere with our judgments and decision making (e.g., the

similarity heuristics, representativeness heuristic, confirmation bias, or the halo effect), affecting the way we interact and perceive others, which can potentially lead to biased outcomes (Kahneman, 2012; Nichols, 2013; Fiske & Taylor, 1991, as cited in Condon, 2015; Bragger, Kutcher, Morgan, & Firth, 2002). In the recruitment and selection process (and especially in the employment interview), there are numerous opportunities for the impression of an applicant to be influenced and shaped by verbal and nonverbal behaviour and cues, which can lead the interviewer(s) to draw biased conclusions and decisions in favour of certain types of groups or people, and reject others that might be just as qualified (Condon, 2015; Bragger et al., 2002; Kutcher & Bragger, 2004).

Potential Antecedents to Unconscious Biases in the Interview Process

There may be numerous potential antecedents to unconscious biases in the employment interview; however, due to the scope of this thesis, the following section is restricted to the potential antecedents we find most noteworthy.

Pre-Interview Personality Assessments

Pre-interview personality assessments are often administered before the employment interview, especially in large corporations (Weiss, 2007). However, it is inherent to human nature to make initial judgements about other people (e.g., Kutcher & Bragger, 2004), and having access to such information beforehand may thus distort the outcome of the interview.

A literature review by Dipboye (1982), found that pre-interview information (e.g. ancillary data) about a candidate influence the way the interview is conducted, the interviewer's expectations of the applicant, and interviewer behaviour. In other words, pre-interview evaluations of an applicant may influence the interviewer's perception or impression of him or her, which in turn can determine the outcome of the interview (Dipboye, 1982). This is coined the *self-fulfilling prophecy theory* and is a potential source of bias in the recruitment process. Dipboye (1982) argued that if the interviewer considered pre-interview evaluation to be positive, with all other variables held constant, the applicant would be assessed more favourably in the final decision. In other words, if the interviewer holds negative associations to some personality types or traits, this may influence how the interview is conducted and how the applicant is judged during the interview.

Another study by Dipboye, Fontenelle, and Gamer (1984), found that pre-interview information about an applicant produced more variability in the conduction of employment interviews and lowered the reliability of the judgements of the applicant. They argued that pre-interview information can lead to judgements about an applicant that the interviewer commits to and seeks to confirm throughout the interview by asking leading questions, or paying attention to confirming answers, in order to confirm his or her initial beliefs about the applicant. In this way, pre-interview information may lead to stronger bias in hiring decisions, especially when questions are not predetermined.

Low Degree of Interview Structure

According to Kutcher and Bragger (2004): "social psychology teaches that individuals attribute characteristics to those about whom they are not given a complete set of information" (p. 2017). Hence, employment interviews, which are basically reciprocal information gathering sessions, are thus particularly prone to unconscious biases that can lower the quality of decisions, especially when there is a low degree of structure in the interview (Kutcher & Bragger, 2004; Bragger et al., 2002; Dipboye, 1994; Condon, 2015). Researchers have argued that unstructured interviews are much more effective than structured ones when it comes to both expressing important values of the organisation, and exploring different attributes and behaviours of the applicant that might be important to the culture and context of the organisation (e.g., Dipboye, 1994). Furthermore, employers might favour an unstructured format over a structured as it affords them the flexibility and freedom to conduct the interview as they see fit. However, the unstructured interview is more prone and susceptible to different biases, e.g., gender, race, disabilities, and appearances (Levashina, Hartwell, Morgeson, & Campion, 2014; Bragger et al., 2002; Macan, 2009; Dipboye, 1994).

It is not unusual for managers and interviewers to rely on their instincts when judging applicants, and thus "test" whether an applicant fit their conception of an ideal employee. Consequently, many interviews are unplanned and conducted in an unstructured, inconsistent, and informal manner (Kutcher & Bragger, 2004) because interviewers believe they are capable of instinctively identify an ideal, qualified applicant that matches the job requirements. Lack of, or low degree of structure, can lead interviewers to make invalid judgments, or as Dipboye (1994, p. 83) argue; "(w)hen unstructured procedures force a reliance on

personal beliefs about job requirements, the likely result is a deterioration in the validity and reliability of interviewer judgements". According to Springbett (1954, as cited in Dipboye, 1994), it only takes interviewers four minutes to make a decision about an applicant; thus, considering how people tend to search for information that will support or confirm their initial beliefs (Dipboye, 1994), one could thus assume that unless there is some degree of structure in the interview, interviewers will be more likely to steer the session in such a direction as to gather information that will confirm their initial impression of the applicant (Fiske & Neuberg, 1990; Dipboye, 1994), which can prevent them from realising and evaluating the applicant's true potential (Grant, 2013). Adding structure to the interview, and develop predeterminant questions based on job analyses has been shown to improve the process, and lower the inclination of unconscious biases (Kutcher & Bragger, 2004; Bragger et al., 2002). Our discussion regarding the importance of interview structure will be revisited in a later chapter.

Applicant Impression Management

Impression management (IM) refers to an "individual's conscious or unconscious attempt to control the images they project in social interactions" (Van Iddekinge, McFarland, & Raymark, 2007, p. 753). IM behaviours such as verbal statements, self-promotion, nonverbal behaviours, and modifications of appearance, have been shown to be used by applicants during interviews in order to manage and create positive impressions of themselves, and the way such IM behaviours can influence recruiter perception in the interview situation has received increasing attention in recent years (Van Iddekinge et al., 2007; Kristof-Brown, Barrick, & Franke, 2002; Peeters & Lievens, 2006; Stevens & Kristof, 1995). In addition to the many nonverbal IM behaviours, research also distinguishes between two categories of verbal IM behaviours: *assertive* behaviours (i.e. behaviours used to actively depict favourable impressions of oneself), and *defensive* behaviours (i.e. behaviours used to defend or repair one's image) (Van Iddekinge et al., 2007). Assertive IM behaviours can be either *self-focused*, defined as "maintaining attention on the candidate and allowing him or her to focus the direction of the conversation on areas which allow him or her to excel" (Kacmar, Delery, &, Ferris, 1992, p. 1253), for instance self-promotion (Van Iddekinge et al., 2007); or *other-focused* with the intention to make another individual (the interviewer), feel good about him or herself, or evoke interpersonal attraction by the use of

ingratiatory strategies (Kacmar et al., 1992; Kristof-Brown et al., 2002).

According to Peeters and Lievens (2006, p 211) "[...] research has consistently shown that friendly nonverbal behaviors, especially eye contact, smiling, hand gesturing, and head nodding, are associated with higher interview evaluations". With this in mind, and given the importance of the employment interview on an applicant's outcome (job offer vs. rejection), it is not difficult to understand why individuals may turn to IM tactics to come off as effective and likable interviewees; however, IM behaviours or tactics may clutter the interviewer's perception of the candidate as personal liking for the applicant can affect the interviewer and lead to biased judgments (Dipboye, 1994). For instance, Dipboye (1994) argued that applicants who showed positive verbal and nonverbal behaviours, e.g., eye-contact, smiling, voice modulation, nodding, bodily gestures, vocal expressiveness, and so forth (traits which incidentally often are associated with extraversion), tended to be viewed as more qualified. Furthermore, he found that when interviewers were impressed with the applicant, they appeared less likely to ask probing questions.

In relation to personality, a study by Kristof-Brown and her colleagues (2002) found evidence suggesting that extravert applicants tend to engage more in IM behaviours, opposed to their introverted counterparts, and this was especially the case for extraversion and self-promotion ($\beta = .47$, $p < .05$). A possible reason for this may be that extraverts tend to be more comfortable with social interaction (Kristof-Brown et al., 2002). Adding structure to the interview may assist in reducing some of these IM behaviours and tactics. For instance, research shows that the use of other-focused IM tactics is negatively related to structured interview, as a stricter interview format inhibits the use of such IM tactics (Stevens & Kristof, 1995), or more specifically; due to "the limited amount of time which a structured vs. unstructured interview provides for applicants to take control of the interview" (Kristof-Brown et al., 2002, p. 30).

Personality

Personality are general and enduring predispositions which generates certain behavioural patterns (Ones, Viswesvaran, and Dilchert, 2005) and personality traits are defined as "dimensions of individual differences in tendencies to show

consistent patterns of thoughts, feelings, and actions" (McCrae & Costa, 2003, p. 25).

The Five Factor Model of Personality

A large body of evidence are in consensus of a five-factor model of personality (FFM), albeit, there are some disagreements concerning the dimension labels and the measurements that are deemed most appropriate (Matthews, Deary, & Whiteman, 2009). The FFM describes the individual differences of personality traits (McCrea, Gains, & Wellington, 2012), and can be defined as "a hierarchical organization of personality traits in terms of five basic dimensions: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness to Experience", each with six respective underlying facets that describe each factor or dimension (McCrea & John, 1992, p. 175).

Personality measurements can be employed in many different settings (e.g. clinical-, occupational-, and educational settings), and their aim is to understand the individual differences and unique qualities in people (Matthews et al., 2009). The most validated and widely employed inventory for measuring the five personality dimensions of the FFM is Costa and McCrea's (1992a) *Revised Neuroticism, Extraversion, Openness – Personality Inventory* (NEO-PI-R), which is a revised version of the NEO Personality Inventory (NEO-PI), published by Costa and McCrea in 1985. The NEO-PI-R is however mainly used for research purposes (Costa & McCrea, 1992a; 1992b; Matthews et al., 2009; McCrea & John, 1992), and thus in occupational settings, personality assessments such as the Myers–Briggs Type Indicator (MBTI) and the Occupational Personality Questionnaire (OPQ), are more frequently used (Matthews et al., 2009).

Extraversion and Introversion

The personality trait that is the most agreed upon in research (along with Neuroticism) is the Extraversion-Introversion dimension (Matthews et al., 2009; Digman, 1990), and is, according to Cain (2012), perhaps the personality dimension which defines us the most. A dimension resembling extraversion have also been found in the animal kingdom, and can be seen in species ranging from fruit flies to chimpanzees, and is manifested in animals' survival techniques and behaviour (Cain, 2012; Gosling, 2001; McCrea et al., 2012).

According to the NEO-PI-R inventory, the more extraverted individuals are

described as preferring "intense and frequent interpersonal interactions and are energized and optimistic" (McCrea et al. 2012, p. 67). In contrary, low scorers (i.e. introverts) are described as "reserved and tend to prefer a few close friends to large groups of people" (McCrea et al., 2012, p. 67) Carl Jung (1961, as cited in Condon 2015, p. 17) defined the extravert as a person with "an outgoing, candid, and accommodating nature that adapts easily to a given situation, quickly forms attachments, and setting aside any possible misgivings, often ventures forth with careless confidence into an unknown situation". On the other hand, he referred to introverts as "a hesitant, reflective, retiring nature that keeps to itself, shrinks from objects, is always slightly on the defensive, and prefers to hide behind mistrustful scrutiny" (Jung, 1961, as cited in Condon, 2015, p. 17). Eysenck (1967; 1981, as cited in Matthews et al., 2009) linked extraversion and introversion to level of cortical arousal. He suggested that extraverts were chronically *under-aroused* and thus seeking more intense stimulation in order to stay within the optimal state of cortical arousal. On the other hand, he believed that introverts were chronically *over-aroused* and thereby seeking low stimulation environments in order lower their state of cortical arousal. In other words, extraverts will seek out higher intensity stimulation environments in order to reach the same optimal level of arousal that introverts attain under less intense stimulation environments (Geen, 1984). Extending on Eysenck's theory of cortical arousal, Geen (1984) conducted a paired associations test, which suggested that introverts preferred significantly less noise stimulation than did extraverts. When introverts were given a stimulation level preferred by extraverts, it reduced their performance on the association test; however, when extraverts and introverts had the opportunity to choose their own preference for noise stimulation, there were no difference in arousal (as measured by heart rate) or performance on the paired associations test.

Even if research has shown that there are differences between extraverts and introverts in their required level of outside stimulation in order to function well, this does not mean that one type is superior to the other. Rather, it suggests that they need different environments and stimulations in order to perform well (Geen, 1984). For instance, extraverts tend to make rapid decisions, solve problems more quickly, finish work assignments faster and be more comfortable with multitasking; however, this may also cause them to sacrifice accuracy for speed, take greater risks and be more likely to give up on a problem if it seems too

difficult or frustrating (Condon, 2015; Peeters & Lievens, 2006). Introverts on the other hand, usually prefer to work on one task at a time rather than multiple tasks, and work more thoroughly and deliberately, making them more likely to work more accurately and think before acting, as well as more persistent to solve problems, thus giving up less easily (Matthews et al., 2003, as cited in Cain, 2012; Peeters & Lievens, 2006).

"The Extrovert Ideal"

According to Cain (2012) there is a cultural ideal in the Western societies to be extraverted. This has also found support in numerous studies (e.g. Andersen & Klatzky, 1987; Caldwel & Burger, 1998; Grant, Gino, & Hofmann, 2010; Gardner, Reithel, Cogliser, Walumbwa, & Foley, 2012), suggesting that more talkative people are considered to be more attractive, more interesting, smarter, and more appealing as friends. The Extrovert Ideal can be described in the following way (Cain, 2012, p. 4):

> Introversion – along with its cousins sensitivity, seriousness, and shyness – is now a second-class personality trait, somewhere between a disappointment and a pathology. Introverts living under the Extrovert Ideal are like women in a man's world, discounted because of a trait that goes to the core of who they are. Extroversion is an enormously appealing personality style, but we've turned it into an oppressive standard to which most of us feel we must conform

As an example of this, extraverts are often favoured for leadership roles, and moreover, being an extravert is often associated with more positive connotations than being an introvert (Andersen & Klatzky, 1987; Grant et al., 2010). However, research has found that introverts can perform just as well in managerial roles and even in some cases deliver better results (Grant et al., 2010). While extraverted leaders are better at motivating passive workers, introverted leaders are better at motivating more proactive workers, and are better suited to help them to develop their ideas (Grant et al., 2010). The extraverted ideal is also evident in the way the society emphasise team- and group work in schools and in the workplace. In schools for instance, we see an increase in the amount of work done in groups, as means to prepare children for work life. In the workplace, people are met with open plan

offices where constant interaction and teamwork is ever-present. However, research show that solitude is a greater source to creativity than teamwork, and innovation and expertise is created by spending a great amount of time in deep thinking and "deliberate practice", which is also dependent upon the individual's motivation to spend time in solitude to exercise and improve their performance (Ericsson, Krampe, & Tesch-Römer, 1993).

Andersen and Klatzky (1987) found that people associate different social stereotypes with being either introverted or extraverted. They suggest that "trait defined categories (such as *extravert* and *introvert*) are associated with large numbers of prototypical attributes that can lead to biases and overgeneralizations about individuals who are categorized in these terms" (Andersen & Klatzky, 1987, p. 236). Through their research, they found that the personality traits extravert and introvert were associated with behavioural, physical, and demographic characteristics, with similar association structures; however, they still differed in the type of associations. On the one hand, being an extravert was associated with positive adjectives such as being outgoing, self-confident, physically strong, knowledgeable, and well-dressed. On the other hand, being an introvert was associated with more negatively loaded adjectives such as being shy, insecure, and withdrawn (Andersen & Klatzky, 1987). However, as Cain (2012) explains, introversion is not the same as shyness. She defines shyness as the fear of social humiliation and disapproval, which is an inherently painful state of being; whereas introversion is a preference for less stimulating environments, something which is not painful. Andersen and Klatzky (1987) argued that social stereotypes are more "associatively rich" than trait-based categories, meaning that the social stereotype of being introverted are given associations that are not necessarily related to the trait-based definition, i.e., "the layperson assigns other individuals to social categories by means of implicit theories of personality and uses these categories to predict potential behaviors, emotional reactions, personality attributes, attitudes, and values" (Andersen & Klatzky, 1987, p. 235). Although this study did not test for a direct effect between social stereotypes and trait-defined categories, it may provide some insight into how a potential bias against introverts are reinforced by implicit theories of personality.

This thesis focuses on unconscious bias against introverts in the recruitment and selection process, specifically in relation to the employment interview. It is

therefore important to understand whether the personality dimension extraversion-introversion is a valid predictor of job performance across *all* types of jobs. Conscientiousness has been shown to be the most valid predictor of job performance across all occupations (Barrick, Mount, & Judge, 2001; Salgado, Anderson, & Tauriz, 2015). Likewise, emotional stability (low scores on the neuroticism dimension) has been found to be a valid predictor of job performance across occupations; although, not to the same extent as conscientiousness (Barrick et al., 2001). Conscientiousness is thought to be a positive contributing factor to training performance, in addition, emotional stability is thought to influence teamwork performance positively (Barrick et al., 2001). The remaining three personality factors (openness, agreeableness, and extraversion) are not found to be valid predictors of job performance across occupations. Extraversion is only a valid predictor for certain jobs where interaction with other people play a large role (Barrick & Mount, 1991; Barrick et al., 2001; Salgado et al., 2015). For instance, Barrick et al. (2001, p. 11) argue that in jobs "such as sales [...], being sociable, gregarious, assertive, energetic and ambitious is likely to contribute to success on the job". However, extraversion should not be a significant factor in hiring decisions where there is no specific criteria or requirement that this trait is necessary for successful job performance.

Recruitment and Selection

The recruitment process is the overall process of attracting and hiring the right people to an organisation, or more specifically, it is "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, 2014a, p. 134). Selection, a branch within the recruitment process, is "the process of choosing from a group of applicants the individual best suited for a particular position and the organization" (Mondy & Mondy, 2014b, p. 158).

In today's economy, in which organisations experience increased global competition, and where they all have approximately the same technology, the organisation's human capital is the one factor making the real difference in regard to gaining a competitive advantage (Mondy & Mondy, 2014b). Organisations rely upon the competence of their employees in order to reach their organisational goals, thus poor hiring decisions can be detrimental to an organisation's success (Mondy

& Mondy, 2014b). Therefore, it is important that companies are ensuring that they employ valid and reliable methods when selecting new personnel. The predictive validity of these methods is the most important facet in "predicting future job performance, job-related learning […], and other criteria" (Schmidt & Hunter, 1998, p. 262) when assessing job applicants. Some selection procedures are shown to have greater predictive validity than others, and the method that is chosen will have proportional impact on the utility of the hiring decision, i.e., its "practical economic value" (Schmidt & Hunter, 1998).

The job analysis can be an important tool for organisations, as it can provide guidelines for which recruitment methods to employ and what to emphasise. The job analysis simply refers to the process of "obtaining information about jobs" (Fisher, Schoenfeldt, & Shaw, 2003) and includes defining "each job in terms of the behaviours necessary to perform it" (Cascio, 1991, p. 188, as cited in Voskuijl, 2005, p. 27). The job analysis can provide organisations with an assessment of what is required now and in the future, and can therefore be employed as a strategic tool (Iversen, 2017). In today's competitive environment, it is important that organisations are hiring people with the right competence at the right time, and the job analysis secures a structured decision-making process, which may result in higher quality hiring processes (Iversen, 2017; Mondy & Mondy 2014b). The job analysis thus ensures recruitment and selection processes with higher degree of validity and reliability, which in turn reduces the frequency of poor hiring decisions.

The job analysis consists of two main elements: job descriptions and job specifications. *Job descriptions* contains written narratives of the job activities and tasks, information about working conditions and job context, and whether the job requires knowledgeable use of specific equipment (Fisher et al., 2003; Voskuijl, 2005). *Job specifications* are information about skills, knowledge, abilities, and other characteristics (KSAs) needed to perform the job (Fisher et al., 2003; Voskuijl, 2005). Although the utility and validity of the job analysis has been questioned due to the changing nature of jobs in modern organisations, it remains to be a powerful tool for gathering information about jobs, and determining the necessary qualifications and competences needed to perform the job in a satisfactorily manner, as well as ensuring that the most qualified person gets hired (Fisher et al., 2003; Iversen, 2017).

The use of job analysis also has its legal necessities. The Uniform Guidelines on Employee Selection Procedures (The Uniform Guidelines, 1989, as cited in Clifford, 1994, p. 321) states that "if an employer wishes to demonstrate to the courts that the selection process used for an employment decision was valid, the employer will need to start from the basis of a current job analysis". An organisation should be able to demonstrate that their decision to hire or reject an applicant is clearly rooted in the applicant's ability to perform the duties and tasks required of the job and the KSAs that are evaluated in the selection process; hence, the organisation must be able to prove that there is a clear link between the job analysis and the hiring decision (Clifford, 1994). By ensuring that their recruitment and selection processes are done in accordance with the criteria determined through a job analysis, the organisation maintains a non-discriminatory practice. In regard to potential unconscious biases related to personality type, a thorough job analysis will assist companies in mapping out and identifying the competencies and personality traits that are relevant for a specific job. This will help avoiding the possibility of emphasising personality traits that are irrelevant, and thus reduce the potential effect of unconscious bias based on the applicant's personality type.

The Employment Interview

One of the most widely used methods in the recruitment and selection process is the job interview, also referred to as the *employment interview*, and its central position as a popular recruitment and selection method has shown to remain stable for the past hundred years (Levashina et al., 2014; Macan, 2009). Compared to alternative instruments, e.g., personality assessments or cognitive tests, employment interviews provide a more participative and authoritative role to managers in which they more easily can measure and evaluate an applicant's potential as a future employee in the company (Bragger et al., 2002; Kutcher & Bragger, 2004). Likewise, the interview offers applicants the opportunity to present themselves to a business representative, and more easily share their personality and strengths.

The employment interview often serves as the initial step in the recruitment process, and in many instances, it may also be the only method used to evaluate and decide between applicants for employment. Generally speaking, the employment interview can be described as a "reciprocal gathering of information

between strangers" (Kutcher & Bragger, 2004, p. 1994), in which the interviewer(s) are in possession of an incomplete set of data about the various job applicants, and then use the interview to fill in the gaps and create a holistic picture of the applicant. Traditionally, the employment interview has been a face-to-face interaction between the interviewer and the applicant; however, due to technological developments in recent years, the interview is no longer restricted to a face-to-face interaction, but can also take on other forms such as a telephone interview or video chat (Levashina et al., 2014). Levashina et al. (2014) therefore propose to define the employment interview as "a personally interactive process of one or more people asking questions orally to another person and evaluating the answers for the purpose of determining the qualifications of that person in order to make employment decisions" (p. 243).

The employment interview may vary greatly in style, structure and techniques. According to research and literature related to employment interviews, two general strategies can be distinguished: the *structured interview* and the *unstructured interview* (e.g., Dipboye, 1994; Schmidt & Hunter, 1998; Kutcher & Bragger, 2004; Bragger et al., 2002; Levashina et al., 2014; Macan, 2009; McDaniel, Whetzel, Schmidt, & Maurer, 1994; Kohn & Dipboye, 1998; Campion, Palmer, & Campion, 1997), where the latter appears to dominate human resource practises. As an important side-note; there are various means of applying structure to an interview, and different interview strategies may vary in degree of structure and techniques used; therefore, one might argue that these approaches could be viewed as falling along a continuum rather than two distinct interview types (Bragger et al., 2002).

Structured Interview

The structured interview approach is a formal and research guided process which uses scientific methods to ensure accuracy checks at every step of the process, making it a rational procedure (Dipboye, 1994). According to Motowidlo, Carter, Dunnette, Tippins, Werner, Burnett, and Vaughan (1992, p. 571) structure refers to the "amount of discretion that an interviewer is granted in decision making"; whereas Campion, Palmer and Campion (1997, p. 656) define structure as "any enhancement of the interview that is intended to increase psychometric properties by increasing standardization or otherwise assisting the interviewers in

determining what questions to ask or how to evaluate results". What differentiates a structured interview from an unstructured one is the importance of questions and procedures grounded in a formal job analysis, standardised questioning of applicants, availability of ancillary data (e.g., test scores, school transcripts, or biographical data), and consistent evaluation systems and rating scales (Bragger et al., 2002; Dipboye, 1994; Campion et al., 1997; Kutcher & Bragger, 2004; Grant, 2013). A more comprehensive, and perhaps most well-known typology of interview structure, is the one proposed by Campion et al. (1997), which distinguish between two categories of structure, each containing several components (15 in total). The first category concerns the *content* of the interview, and includes the following seven components: (1) job analysis; (2) same questions; (3) limit prompting, or elaboration on questions; (4) better questions; (5) longer interview, or larger number of questions; (6) control ancillary information; and (7) no questions from applicant until after the interview. The second category includes eight components related to the interviewer's *evaluation*: (8) rate each question/answer; (9) anchored rating scales; (10) note-taking; (11) multiple interviewers; (12) same interviewer(s); (13) no discussion between interviews; (14) interviewer training; and finally, (15) statistical, rather than clinical, prediction (Campion et al., 1997; Levashina et al., 2014; Kutcher & Bragger, 2004). Although the components included in this typology is considered important, the extent to which each component add to the reliability and validity of the interview has been a topic for discussion (Levashina et al., 2014). The degree of structure added may also vary, and an interview can be either highly structured, or semi-structured (Dipboye, 1994). Furthermore, the number of components included in the procedure may also affect the degree of structure (Bragger et al., 2002).

The use of structured interviews has increased during recent years and employers are continuously being encouraged to structure and standardise their interview process (Kutcher & Bragger, 2004). However, the frequency of its use is still overshadowed by unstructured interview methods, which are more frequently used in the initial selection, placement, and promotion of employees (Dipboye, 1994). One reason for this may be that structured interviews are costlier to construct and use, and thus demanding greater human resources than unstructured interviews (Schmidt & Hunter, 1998). Still, considering how adding

structure to the interview has shown to improve its psychometrics properties, making it much more reliable and valid than unstructured interviews (Kutcher & Bragger, 2004; Levashina et al., 2014), one would assume that the costs would be worthwhile. Extensive research findings emphasise how adding structure to the interview increases the predictive validity, interrater reliability, and improve the validity and reliability of interviewer judgments, as well as reduce inconsistency across interviewers (Bragger et al., 2002; Kutcher & Bragger, 2004; Dipboye, 1994; Levashina et al., 2014). This in turn may lead to optimal person-job fit (Dipboye, 1994), decreased human resources expenses, greater probability of successful hiring, and greater organisational efficiency (Kutcher & Bragger, 2004). Standardising and structuring the interview procedure by asking all applicants the same questions in the same order, and evaluate their responses using mathematical scoring systems and behavioural guidelines, ensures a stricter adherence to job-related requirements, and reduce potential variability and subjectivity across judges (Bragger et al., 2002; Kutcher & Bragger, 2004; Dipboye, 1994; Grant, 2013). Moreover, studies have shown that structured interviews may be a possible avenue for reducing the biasing factors (e.g., biases in information gathering, judgment, and decision making) in the employment interview (e.g., Dipboye, 1994; Levashina et al., 2014; Macan, 2009). As mentioned earlier, interviewees are less likely to employ impression management techniques related to personality traits when the interview has a high degree of structure and follows a strict format (Van Iddekinge et al., 2007). In addition, Macan (2009, p. 204) argues that "interviewer judgments based on structured interviews are more predictive of job performance than those from unstructured interviews", reducing potential traps such as confirmatory bias, similarity bias, or halo effects (e.g., Bragger et al., 2002; Grant, 2013).

Unstructured Interview

Contrary to the structured interview, the unstructured interview has no standardised format, nor does it have a specific prearranged set of questions to ask applicants, or follows a standard procedure for how to evaluate and measure applicants' responses to questions; "in fact, responses to individual questions are usually not scored, and only an overall evaluation (or rating) is given to each applicant, based on summary impressions and judgments" (Schmidt & Hunter,

1998, p. 267). The unstructured interview may thus be experienced as more of a free, informal, and open-ended conversation, in which questions are spontaneously generated in the natural flow of interaction (Burgess, 1984). The interviewer may ask different types and numbers of questions to each applicant, depending on the different directions the interview may take, and rather than scoring each answer and base their final evaluation on careful analysis of each candidate, the interviewer may base his or her decision on an overall evaluation of impressions and judgments of the applicant (Schmidt & Hunter, 1998; Dipboye, 1994). Since the unstructured interview is an informal and flexible process, there is no official and universal guidelines for how it should be conducted. This provides the interviewer with a unique position to conduct the interview in an idiosyncratic way (Levashina et al., 2014), and explore the attributes and personality of the applicant beyond KSA's, which might be one of the reasons why unstructured interviews are so frequently used (Dipboye, 1994). There are, however, several potential pitfalls to such a procedure, e.g., the unstructured interview being dominated by the interviewer's attempts to achieve personal satisfaction, or acquire and maintain power. The interviewer's own personal judgments about the necessary requirements, and employee-job fit may also bias their judgment. For instance, what may overshadow the interviewer's evaluation of the candidate is what they have talked about and done during the interview, rather than the candidate's actual qualifications and skills (Dipboye, 1994), thus making the content and evaluation process "more reflective of the interviewer's implicit theories of the job requirements than the actual job requirements" (Levashina et al., 2014, p. 252).

Despite the unstructured interview being a popular method, it has been criticised for its low validity and reliability when compared to more structured interviews (e.g., Levashina et al., 2014; Schmidt & Hunter, 1998; Dipboye, 1994; Hunter & Hunter, 1984; Grant, 2013).

Validity and Reliability of the Employment Interview

Studies on the validity and reliability of the employment interview have revealed much higher validities (and interrater reliability) for structured interviews than for unstructured interviews (e.g., Dipboye, 1994; Schmidt & Hunter, 1998; Hunter & Hunter, 1984; Levashina et al., 2014), although the estimates might vary slightly.

For instance, a study performed by Conway, Jako, and Goodman (1995) found the validity estimate of the structured interview to be .67, and, furthermore, that the interrater reliability of structured interview was greatly improved over the unstructured interview. Similarly, Schmidt and Hunter (1998) found the average validity of the structured interview to be .51 compared to the unstructured interview which was as low as .38 (and probably even lower if the unstructured interview is conducted in a careless manner). When used in addition to a general mental ability (GMA) test, they found the incremental validity of structured interview to be .12, contrary to the unstructured interview which was only .04 (Schmidt & Hunter, 1998). "Clearly, the combination of a structured interview and a GMA test is an attractive hiring procedure. It achieves 63% of the maximum possible practical value (utility), and does so at reasonable cost" (Schmidt & Hunter, 1998, p. 267). An important note regarding these findings is that the unstructured interviews that were included in Schmidt and Hunter's (1998) summary of meta-analytic findings, were in fact scored on a scale, i.e., the responses of the interviewee were scored and these scores were then added together and summarised. Usually, unstructured interviews only rely on notes and/or overall evaluations, hence, they can often be considered as undocumented methods, and their validity would thus be hard to measure or evaluate correctly (Schmidt & Hunter, 1998). Schmidt and Hunter further found that the structured interview explains 24% of the variance in job performance, whereas the unstructured interview explains only 8% (Schmidt & Hunter, 1984; Grant, 2013). Dipboye (1994) also found differences in the validity of the two types of interview structure, and furthermore, that the validity also depended on whether the interviews were conducted as individual or board interviews. Structured individual interviews had a mean corrected validity of .63, while structured board interviews had a mean corrected validity of .60. The unstructured individual interviews however, had a mean corrected validity of .20, whereas the mean corrected validity of the unstructured board interviews was .37 (Dipboye, 1994). Despite differences in validity estimates, research clearly shows that adding structure to the employment interview increases its validity.

In this chapter, we have discussed and identified the themes that we find most relevant for providing a thorough theoretical background on which the present study is based.

The Present Study

To our knowledge, there is limited amount of research addressing the current topic of the potential unconscious bias that may exist against introverted job applicants, and to what extent personality type (extravert - introvert) may unconsciously affect the recruitment and selection process. Kutcher and Bragger (2004) argue that whereas previous research on structured interviews has emphasised its benefits on predictive validity, interrater reliability, and fairness in recruitment processes, none have focused on its ability to reduce biases related to nonverbal cues and characteristics, such as behavioural personality traits related to introversion and extraversion. Similarly, Levashina et al. (2014) suggests that future research exploring how interview structure and visibility of personality traits may enhance or impede interviewer judgements of applicant personality, is recommended. Clearly, there is a demand for future research related to interview structure and personality.

Research Question and Hypotheses

Due to limited research in this field we wanted to focus our master thesis on investigating the topic of unconscious bias related to personality type in the recruitment process further. First, building on the research of Andersen and Klatzky (1987) we wanted to examine whether adjectives associated with extraversion are rated more preferentially, as an attempt to uncover a potential unconscious bias against introverts that may cause an extraverted applicant to have an advantage in the recruitment process; and also, we wanted to investigate whether there is a difference in the ratings between the general population and HR and recruitment personnel, since no previous studies (at least to our knowledge) has focused on comparing these two groups before. Second, we wanted to examine whether increased interview structure could reduce the effects of such an unconscious bias (should it exist); also here we wanted to see whether there was a difference in the ratings between the general population and HR and recruitment personnel.

For the sake of clarity, the purpose of the study is twofold and raises a Research Question comprised of two interrelated queries, as presented above. Combining these two interrelated queries, the Research Question is thus stated as following:

> *Is there an unconscious bias against introverted personality traits that causes an extraverted personality type to have an advantage in the recruitment and selection process, and if so, can structured interview reduce the effect of such an unconscious bias?*

Perception of Personality Traits and the Extrovert Ideal

As mentioned earlier, a study by Andersen and Klatzky (1987) proposed that adjectives associated with extraversion have proven to be rated as more preferential than adjectives associated with introversion. This was something we wanted to test in the present study. Support for this finding would be revealed through how the HR and recruitment personnel group and the general population group would rate the adjectives associated with extraversion compared to the adjectives associated with introversion. Adjectives associated with extraversion would be considered as more suitable or preferential for the position, thus the ideal candidate would then be more associated with the extravert-related items; we thus hypothesised that:

> *Hypothesis 1*. Adjectives associated with extraversion will be rated as more suitable for the position than adjectives associated with introversion.

Due to the Extrovert Ideal discussed in the introductory chapter of this thesis (Andersen & Klatzky, 1987; Cain, 2012; Caldwel & Burger, 1998; Grant et al., 2010), we believe that the general population will rate the extravert-related items in the association test as more favourable than will the HR and recruitment personnel. This will propose that the HR and recruitment personnel may not be influenced by an unconscious bias of favouring extraversion to the same extent as the general population, perhaps due to professional education and experience (e.g. being certified users of occupational personality tests and experience in personnel selection), or due to advanced understanding and judgment of what personality characteristics are suitable for a certain job, thus not let themselves be influences by irrelevant personality traits and cues. We hypothesised that:

> *Hypothesis 2*. The general population group will rate extravert-related items as more favourable than the HR and recruitment personnel group.

The employment of video interviews allows us to test the overall impression of an applicant based on both verbal and nonverbal information and cues (e.g. personality traits, body language, or impression management tactics) about personality type (DeGroot & Gooty, 2009; Kacmar, Delery, & Ferris, 1992;

Dipboye, 1994; Kristof-Brown et al., 2002; Peeters & Lievens, 2006). To further support our overall research question that extraverts have an advantage over introverts in the employment interview, we would assume that respondents in both groups will rate the extraverted applicant more frequently as an ideal candidate than the introverted applicant, and that this would be the case regardless of the degree of interview structure. Findings supportive of this assumption would suggest that there is an overall favourability of the extraverted applicant, which will provide further evidence for the Extroverted Ideal, and potentially new evidence for an unconscious bias against introverts. We hypothesised that:

> *Hypothesis 3.* The extraverted applicant will be rated more frequently as an ideal candidate for the position, than the introverted applicant.

Next, we wanted to investigate whether there was a difference in how the general population group, and the HR and recruitment personnel group rated the applicants. We believe that the HR and recruitment personnel, due to their professional education, training and expertise, would be more critical in their judgement of what personality traits would be suitable for a certain position, and not as easily influenced by the applicant's verbal and nonverbal cues as "[...] the interviewer is trained to ignore these cues because they are assumed to cause rating error" (DeGroot & Gooty, 2009, pp. 179-180); and that this would reduce the effect of a potential unconscious bias favouring the extraverted applicant based on her personality type. Such an assumption would be rooted in the notion that training, expertise and experience increases knowledge and awareness, which in turn can help to reduce erroneous decision-making and unconscious biases (DeGroot & Gooty, 2009; Hammond, Keeney, & Raiffa, 1998; Kahneman, 2012). On the basis of what we have discussed earlier about the Extrovert Ideal and unconscious bias, we would assume that the general population would be more inclined to rate the extraverted applicant higher on all post-video questions – i.e., first impression, professional competence and as an ideal candidate for the position - due to lack of professional education and expertise, as well as the presence of an unconscious bias favouring an extravert personality type. Both manuscripts for the extraverted and introverted applicant were identical in terms of the professional competence that was communicated, so in principle, the ratings for professional competence should be close to equal for both applicants. A difference in scoring of applicants would

provide support for the effect of an unconscious bias against the introverted applicant. Therefore, we hypothesised that:

> *Hypothesis 4*. There will be a significant difference in the ratings of the applicants between the two sample groups (general population group vs. HR and recruitment personnel group).

The Influence of Interview Structure

Turning our focus to interview structure; in line with previous research, increased degree of interview structure will help reduce the effects of potential unconscious biases (e.g. Bragger et al., 2002; Kutcher & Bragger, 2004; Levashina et al., 2014). Support for this theory would be revealed through a significant difference between the ratings of the extraverted and introverted applicants in the four experimental conditions, more precisely, the extraverted applicant would be rated as a more ideal candidate, than would the introverted applicant, especially in the unstructured interview conditions. This would further support the proposition that the lower the degree of interview structure, the greater the difference between the ratings of the extraverted and introverted applicants, suggesting that an unstructured interview style would be in favour of an extraverted applicant. We hypothesised that:

> *Hypothesis 5*. The unstructured interview will favorise the extraverted applicant.

Increased degree of interview structure can arguably help to reduce the effect of a potential bias against the introverted applicant (e.g. Bragger et al., 2002; Kutcher & Bragger, 2004; Levashina et al., 2014). Building on this previous research, we wanted to examine whether there would be a significant difference in the ratings of the introverted applicant in the unstructured interview versus the structured interview. Especially, we wanted to examine whether the introverted applicant in the structured interview condition would be rated as a more ideal candidate for the position, than would the introverted applicant in the unstructured interview condition. Differences in the ratings of the applicants in the two interview conditions, in favour of the structured interview, would argue that adding structure to the interview would reduce the effect of potential unconscious bias against the introverted applicant (e.g. Bragger et al., 2002; Kutcher & Bragger, 2004; Levashina et al., 2014). We therefore suggest that increased degree of structure in employment interviews may reduce the variability that is produced by the

interviewer's initial perception of an applicant. Our final hypothesis is stated as following:

> *Hypothesis 6.* The structured interview will reduce the effect of bias against the introverted applicant.

Operationalisation of Survey Terms

Since the survey was conducted in Norwegian, the adjectives used in the survey were thus written in Norwegian. To avoid any potential misunderstandings due to translation, each term will be presented in both Norwegian, and in its corresponding English translation of the word. The terms will then be operationalised in English in the way that we have chosen to interpret them, for the purpose of this study.

Outgoing (utadvendt)

We used this term twice in the study, both in the association test and in the survey in relation to the videos, and the Norwegian corresponding term used was "utadvent". We will only explain it once since the term has the same meaning in both sections of the study. This term is very strongly linked to the extraverted personality type, and is associated with being sociable, warm, and friendly. A person with an outgoing personality is associated with being more likely to be responsive to other people, and finding it easy and enjoyable to seek out new encounter-/friendships.

Talkative (pratsom/snakkesalig)

In the study, both the Norwegian terms "pratsom" and "snakkesalig" has been used, both of which can be directly translated into "talkative". Since their English translation is the same, they will be operationalised the same way. The term talkative may have both positive and negative connotations, but is usually associated with the extraverted personality type. This term can be described as the tendency or disposition to talk to a large extent. This tendency may be perceived as positive in that talkative people can be easy to get to know and it can also help to avoid uncomfortable silence; however, it can also be perceived as negative if the content of the "talk" is perceived by others as meaningless.

Calm (rolig)

The term "rolig" can be translated to "calm", and can be a facet of both introversion and emotional stability. However, for the purpose of this study, we have chosen to associate the term with introversion rather than a facet of neuroticism, and we have operationalised it as the extent to which a person is behaving mild mannered and not overly expressive. However, being calm can also be interpreted as the opposite of being or appearing nervous or anxious, however, for the purpose of the current study, the term will refer to behaving in a peaceful and subtle manner.

Dominating (dominerende)

The direct translation of the term "dominerende" is "dominating", and it is associated with the extraverted personality as they are often more assertive in their manners and behaviour and more likely to take control and enjoy being in a powerful position. However, this term may be perceived as negative in that it can also be associated with aggressiveness, although this is not the intention of the current study.

Contemplative (ettertenksom)

In the association test, we employed the term "ettertenksom", which we have translated into "contemplative", and operationalised as expressing or being involved in prolonged thought. This term is often associated with the introverted personality type since introverted individuals can often be perceived as more contemplative because of their tendency to need more time to think or reflect upon an answer before speaking or answering a question. However, it is important to note that this does not mean that extraverted individuals lack this ability, and rather than a characteristic of introversion, in research, this term is associated with the Openness factor (McCrea et al., 2012).

Sociable (omgjengelig)

The Norwegian term used in the survey was "omgjengelig". The corresponding English term would be "sociable", which can be operationalised as being friendly and companionable, and enjoying the company of others. Being sociable is a trait that is often associated with an extraverted personality type, as extraverts are often perceived as seeking more social companionships and as being more gregarious than introverts.

Energetic (energisk)

The term "energetic", as we have chosen to operationalise it, refers to the degree of which a person is possessing, exerting, or displaying energy. Being energetic is a trait that is often associated with extraversion as extraverted individuals are often perceived as both having and expressing more energy in their behaviour and actions, than are introverted individuals. In the survey, the Norwegian corresponding term that was used was "energisk".

Restrained (behersket)

The Norwegian term used in the survey was "behersket", for which the corresponding English term is "restrained". As a personality trait (and for the purpose of this study), the term "restrained" can be described as behaving in a calm, reserved manner or operating as a slightly slower pace, and is a trait that is often associated with the introverted personality type as introverts have a tendency to appear more reserved. Restrained can also be referred to as the ability to keep one's emotions and temper under control; however, for the purpose of this study, we have chosen to define the term as someone appearing more reserved, rather than someone appearing to control their temper.

Lively (livlig)

The term "lively" can be used to describe a person who is behaving in a way that is characterised by high levels of energy, excitement, and activity. This term is often considered a trait of the extraverted personality type as extraverts tend to be associated with having and expressing more energy, liveliness and enthusiasm in their behaviour and actions. The Norwegian corresponding term used in the survey is "livlig".

Method

The following chapter will describe how participants were collected, how the job analysis was conducted, and how the job description was constructed. The materials and apparatus that were employed will also be presented. A detailed explanation of how the association test, manuscripts, and video interview sequences were designed and created, as well as a description of the experimental procedure and design will also be provided.

Participants

Participants for the current study were recruited through social media (mainly Facebook and LinkedIn), networking with companies, referrals, and by email. Our initial sample size consisted of 354 participants, however, 154 reports were excluded from the analysis because they were not 100% completed by respondents. This gave us a response rate of around 56%, which left us with a sample size of 200 participants in total. The distribution of the sample in terms of occupation, age and gender is shown in Table 1.

Table 1

Distribution of Participants

Measure	Item	Frequency	Percentage
Gender	Female	114	57.0%
	Male	86	43.0%
	Total	200	100%
Age	18-25	34	17.0%
	26-35	57	28.5%
	36-45	41	20.5%
	46-55	47	23.5%
	56-65	20	10.0%
	65+	1	0.5%
	Total	200	100%
Sample Group	HR & Recruitment Personnel	128	64.0%
	General Population	72	36.0%
	Total	200	100%

Apparatus and Materials

Job Analysis and Job Description

A job analysis was conducted using an approved job analysis template. Information data were collected through a multimedia information search and included resources such as Internet career databases (e.g. O*Net), existing job descriptions and job ads (e.g. Finn.no), and informal correspondence with currently employed HR and recruitment personnel. The job analysis yielded a job summary, main job content, (i.e. tasks, and activities, job context and working conditions), job specifications, necessary level of education and years of working experience, recommended personal competencies and characteristics, and other requisites (see the attached job analysis in Appendix B).

Based on the job analysis, a job description was developed, which provided a brief description of the job content, tasks, and responsibilities, along with a listing of the requisite personal competencies and qualifications (both educational and other) that would be necessary in order to qualify for the job. This job description was presented in the initial part of the online survey, and used as the basis for the rest of the survey.

Association Test

The attributes in the association test consisted of 17 personality characteristics (hereby items) related to different factors of the Big-Five (i.e. openness, conscientiousness, extraversion, agreeableness, and neuroticism). The items were chosen based on careful investigation of attributes typically associated with an extravert or introvert personality type, and included items both with more positive and more negative associations. Only the extravert-related items (i.e. outgoing, talkative, dominating, sociable, and lively) and introvert-related items (i.e. calm, contemplative, and restrained) were included in the analysis; however, the purpose of adding items related to all five factors was to avoid having participants uncover the aim of the study.

Interview Scripts

The job analysis generated competencies and requirements that would be necessary in order to succeed in the job, and interview questions were formulated to assess the applicants' compatibility with the position. Four interview scripts were written to represent the levels of the structure variable and the personality type variable. The typical applicant response was written as an average response, to ensure that the applicant's response would not be perceived as too poor, nor too impressive. Moreover, the interview scripts included both the applicant's verbal answers along with some written instructions for nonverbal cues (i.e. dynamic and paralinguistic cues (DeGroot & Gooty, 2009)), to ensure that the applicant were, in fact, behaving as an extravert or introvert applicant. Traits related to extraversion and introversion were limited to nonverbal behaviour and cues and some personal preferences (irrelevant to their professional competence); while questions directly aimed at this factor were avoided. To maintain internal consistency, all four interviews included and revealed the same information about the applicant, and the content of the applicants' responses was also identical except in the way the answers were

communicated (e.g. extravert applicant using longer sentences, more words, and more expressive body language). Thus, all four interview scripts included the same information about education, work experience and qualifications, which in principle (personality type and nonverbal cues aside) would make all four applicants equally suitable for the position. The structured interview scripts followed a strict set of predetermined behavioural and situational questions in order to uncover the applicants' competencies and qualifications. The unstructured interview scripts on the other hand, were more of an informal conversation in which the same information about the applicant was revealed through randomly asked questions and follow-up questions.

Equipment and Scenario

Four brief interview scenes were filmed to represent the following experimental conditions: extravert/unstructured, extravert/structured, introvert/unstructured, and introvert/structured. The video equipment used was a Sony 32GB HDR-PJ650 Handycam Camcorder, with a Sennheiser ME66/K6 Shotgun Microphone System. Location was a standard office room. To control for additional stimulus variables, the same video and microphone equipment, and properties were used for all videos. Furthermore, the same actresses (interviewer and applicant) were used in the videos for all four experimental conditions to control for variables such as facial expressions, vocal inflection and nuance, and static cues, e.g., demographic variables, appearances, and physical attractiveness. To keep the focus on the applicant, the female interviewer was not seen, only heard. The videos all had the same length of approximately 8 minutes, which were determined the necessary video length for interview structure to be illustrated and detected by participants, but at the same time not so long that participants would lose focus or interest.

Survey Software

The survey was constructed using the Qualtrics Survey Software, and data were also collected through this software. We also made sure that our survey was approved by NSD before we began the data collection, and the receipt for this approval can be found in Appendix A.

Procedure

Experimental Design

The design of the study was a within-subjects design. In the first part of the survey all participants were given the same questionnaire, while in the second part, participants were randomly assigned to one of four experimental conditions, using the randomisation feature in Qualtrics Survey Software. The independent variables throughout the study was the respondent's occupation (HR and recruitment personnel or general population). In the second part of the survey, we added the videos (personality type/degree of structure) as an independent variable. For the first part of the survey, the dependent variables were the extravert-related and introvert-related items in the association test. For the second part, the dependent variables were the extravert-related and introvert-related items that would be rated in terms of how they described the applicant in the experimental conditions, and the questions at the end of how participants perceived the applicant and the interview in terms of first impression, professional competence, conduction of the interview, and how ideal the applicant was perceived.

Survey Instructions and Step-by-Step Description

Upon gaining access to the survey, participants were briefly informed about the study topic and survey, however, this information was kept rather limited to avoid revealing the intent of the study. Participants were then asked to give their consent and agree to be part of the study, and asked to state their age, gender, and occupation. The survey itself comprised two parts; the first part consisting of an association test with the purpose of revealing a potential unconscious bias against introverts on a general level, based on ratings of extravert-related and introvert-related items; the second part of the study consisted of a video interview sequence (one of the four experimental conditions), followed by a series of questions and statements related to the applicant in the video. The purpose of the second part of the study was to reveal a potential unconscious bias against introverts based on the ratings of the extravert and introvert applicants in the video interviews. Participants were told to assume the role of a recruitment consultant, and instructed to read the job description in the initial phase of the survey. Next, they were presented with an association test consisting of 17 items, and instructed to rate each item using a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree), to indicate the

extent to which they would consider that particular item descriptive of an ideal candidate for the position in question.

Next, participants were assigned different experimental conditions and shown a video interview sequence. By using the randomisation feature in the Qualtrics Survey Software, the survey randomly selected which one out of the four experimental conditions the participants would be shown. Following the video, participants were presented with a series of statements, and instructed to rate each statement using the same Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The first 10 statements were personality attributes (similar to the items in the association test), whereas the final four were stated as questions in which participants would rate to which extent they thought the applicant gave a good first impression; whether the applicant had the necessary professional competence; whether the interview were conducted in a good way; and finally, whether the applicant in the video reflected an ideal candidate for the position. All statements and questions had to be answered in order for the survey report to be completed.

Data Analysis and Results

In the following chapter, the data analyses for all hypotheses will be presented sequentially, along with the main results for each hypothesis. We chose to present the results in this manner on the basis that many of the hypotheses were tested through the same analyses, and we thus wanted to present the findings in a clear and structured way. This chapter mainly focuses on the data analyses and statement of results, and will thus not elaborate on each specific finding. A more thorough discussion of the results and principal findings will be presented in the General Discussion-chapter.

Hypothesis 1

In order to test Hypothesis 1, we first wanted to explore the data and the respective means for each item (adjective). From Table 1 we see that the means for "talkative" ($M = 3.72$, $SD = 1.35$) and "dominating" ($M = 2.56$, $SD = 1.32$) are the lowest mean scores of all extravert-related and introvert-related items. Moreover, "sociable" ($M = 5.68$, $SD = 0.99$) is thereby considered by both groups as the most desirable characteristic of an ideal candidate for the position in the survey, closely followed by "restrained" ($M = 5.42$, $SD = 1.16$), and then "contemplative" ($M = 5.05$, $SD =$

1.18). For full table of all items employed in the association test, please see Appendix E.1.

Table 1

Items Employed in the Association Test

Item	Group	Mean	Std. Deviation	N
Outgoing	HR & Recruitment Personnel	5.05	1.09	128
	General Population	5.40	1.26	72
	Total	5.18	1.17	200
Talkative	HR & Recruitment Personnel	3.43	1.25	128
	General Population	4.24	1.38	72
	Total	3.72	1.35	200
Calm	HR & Recruitment Personnel	4.84	1.10	128
	General Population	5.14	1.25	72
	Total	4.95	1.16	200
Dominating	HR & Recruitment Personnel	2.44	1.23	128
	General Population	2.78	1.44	72
	Total	2.56	1.32	200
Contemplative	HR & Recruitment Personnel	4.94	1.20	128
	General Population	5.19	1.12	72
	Total	5.03	1.18	200
Sociable	HR & Recruitment Personnel	5.70	0.85	128
	General Population	5.63	1.22	72
	Total	5.68	0.99	200
Energetic	HR & Recruitment Personnel	4.77	1.18	128
	General Population	4.71	1.39	72
	Total	4.75	1.26	200
Restrained	HR & Recruitment Personnel	5.31	1.19	128
	General Population	5.61	1.08	72
	Total	5.42	1.16	200

A *t*-test was employed in order to see whether the difference between the extravert-related items and introvert-related items were significantly different. We computed two new variables; i.e., an introvert variable with mean scores of the introvert-related items (calm, contemplative, and restrained), and an extravert variable with all the mean scores of the extravert-related items (outgoing, talkative, dominating, sociable, and energetic). A dependent *t*-test revealed that, on average, respondents in both groups rated the introvert-related items as significantly more desirable for the position ($M = 5.13$, $SE = 0.06$), than the extravert-related items ($M = 4.38$, $SE = 0.05$), $t(199) = 11.64$, $p < .01$, $r = .41$. The effect size ($r = .41$) suggest a medium effect size. The effect size was calculated as following:

$$r = \sqrt{\frac{t^2}{t^2 + df}} = \sqrt{\frac{11.64^2}{11.64^2 + 199}} = \sqrt{\frac{135.4896}{334.4896}} \approx .41$$

We also wanted to see whether the result would be significantly reversed to favour the extravert-related items if we excluded the items that could be interpreted by the respondents as more negatively associated traits (i.e. talkative and dominating). The results suggest that respondents in both groups on average rated extravert-related items as more desirable ($M = 5.20$, $SE = 0.06$), than introvert-related items ($M = 5.13$, $SE = 0.06$), however, this finding was not significant, $t(199) = 0.98$, $p > .05$, $r = .0048$. The hypothesis is thus not supported.

Hypothesis 2

For Hypothesis 2, we can see that in Table 1, the general population rate all items as more desirable for the position than the HR and recruitment personnel, except from "sociable" (HR and recruitment personnel: $M = 5.70$, $SD = 0.85$ / general population: $M = 5.63$, $SD = 1.22$) and "energetic" (HR and recruitment personnel: $M = 4.77$, $SD = 1.18$ / general population: $M = 4.71$, $SD = 1.39$), both being more associated with extraversion. An independent t-test was carried out in order to test whether there is a difference between the two groups in how they rated extravert-related items.

Table 2

Independent Samples T-Test

| | | Levene's Test | Independent t-test | | |
		F	T	df	SE Difference
Extravert-Related Items	Equal variances assumed	7.349**	-2.467	198	0.11020
	Equal variances not assumed		**-2.273****	**115.593**	**0.11959**

** $p < .05$

On average, respondents in the general population group rated extravert-related items more desirable ($M = 4.55$, $SD = 0.89$), than the HR and recruitment personnel ($M = 4.28$, $SD = 0.66$), and an Independent Samples t-test showed that this difference was significant $t(115.593) = -2.27$, $p < .05$, $r = -.05$ (see Table 3). Levene's test indicated unequal variances, ($F = 7.35$, $p = .01$), therefore, the degrees of freedom were adjusted from 198 to 115.59. The effect size will be discussed

further in the discussion section; however, these results provide support for the second hypothesis.

Hypothesis 3

Before testing Hypothesis 3, we first wanted to check to see whether respondents actually did perceive the extraverted applicant as extravert and the introverted applicant as introvert, thereby suggesting that the video interviews were indeed valid measures. From Table 3, we can see that in general, the extraverted applicants were rated as more extravert than the introverted applicants across all conditions.

Table 3

Mean Scores for Extravert-Related Items

Item	Experimental Condition	Mean	SD	N
Outgoing	Extravert unstructured	6.25	0.883	52
	Extravert structured	5.65	1.031	54
	Introvert structured	4.02	1.306	52
	Introvert unstructured	3.45	1.517	42
Lively	Extravert unstructured	5.85	1.144	52
	Extravert structured	5.28	0.940	54
	Introvert structured	3.42	1.242	52
	Introvert unstructured	3.19	0.917	42
Talkative	Extravert unstructured	6.52	0.671	52
	Extravert structured	5.78	1.040	54
	Introvert structured	4.48	1.093	52
	Introvert unstructured	4.69	1.220	42

An analysis of variance (ANOVA) also concluded that this difference was significant, $F(9, 588) = 18.64$, $p < .001$.

Results from a One-Way ANOVA suggested that personality type and degree of structure had a significant effect on whether or not the applicant was rated as an ideal candidate, $F(3, 196) = 3.64$, $p < .05$. However, we do not know whether this difference was due to personality type (i.e. the applicant being extraverted) only, thus we ran a planned contrast in order to check whether there was a significant difference between personality type (degree of interview structure ignored) to test the initial hypothesis. Planned contrast revealed that there was no significant difference in the overall ratings of the extraverted applicant and the introverted applicant, $t(196) = -1.11$, $p > .05$.
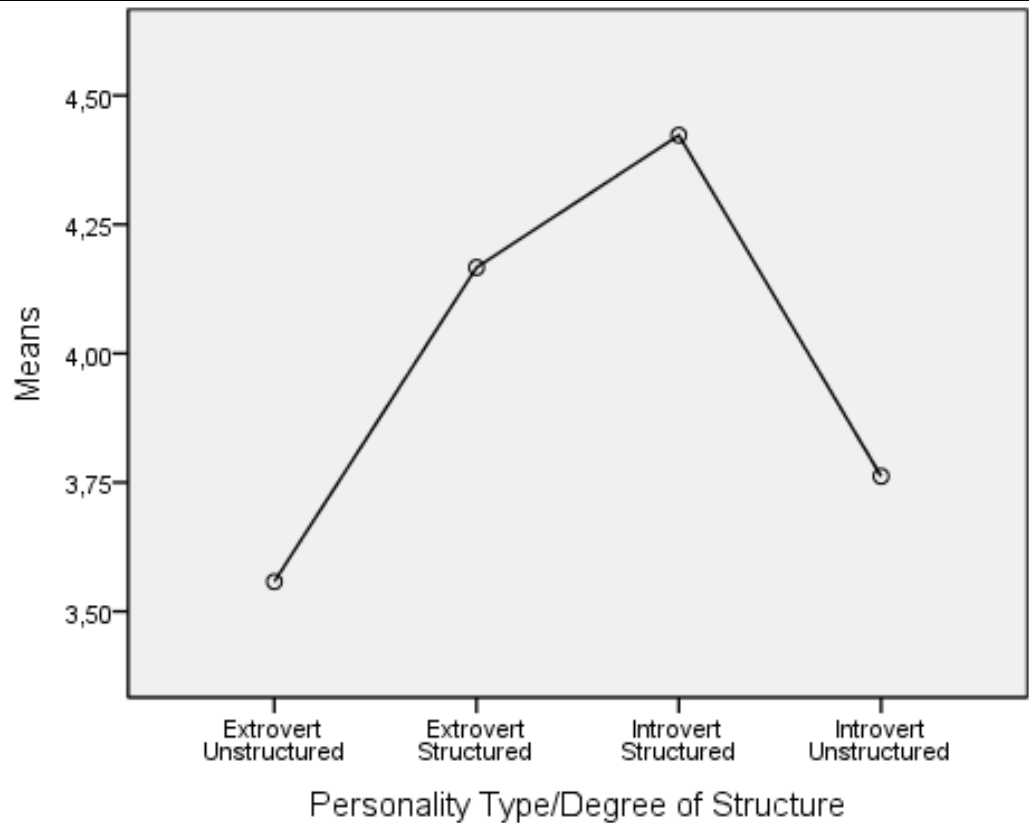
Figure 1. This figure illustrates how the applicant was rated across the four experimental conditions on the variable "did the applicant reflect an ideal candidate for the position?"

However, in terms of whether the applicant was rated as an ideal candidate for the position in question, Figure 1 illustrates that the difference may lie in degree of structure rather than personality type, as the applicants in the structured conditions are rated higher than the applicants in the unstructured conditions, and this was consistent across both personality types. In sum, we could not find any significant difference in how the applicants were rated based on personality type, and thus found no evidence that the extraverted applicant was rated more frequently as an ideal candidate. Therefore, Hypothesis 3 was not supported. The question of degree of interview structure will be discussed further in the results for Hypothesis 5 and Hypothesis 6.

Hypothesis 4

Before running a two-way multivariate analysis of variance (MANOVA), we checked for any univariate or multivariate outliers using the Mahalanobis Distance measure, which showed that there were no outliers. We also checked for multicollinearity between the dependent variables. Table 4 shows that the

correlations between the dependent variables are all quite high and significant at the .001 level; however, none of them are above .90, which would suggest a too high correlation. Thus, we conclude that the assumption of multicollinearity has not been violated.

Table 4

Correlation Matrix of Dependent Variables

Measure	1	2	3
1. Did the applicant give a good first impression?	-		
2. Did the applicant have the necessary professional competence?	.62**	-	
3. Did the applicant reflect an ideal candidate for the position?	.69**	.74**	-

** $p < .001$

Figures 2a, 2b, and 2c illustrate differences in ratings for the questions "*did the applicant give a good first impression?*" (Figure 2a), "*did the applicant have the necessary professional competence?*" (Figure 2b), and "*did the applicant reflect an ideal applicant for the position?*" (Figure 2c).

Figure 2c. Figure illustrating how the two sample groups rated the applicant across the four experimental conditions on the variable "did the applicant reflect an ideal candidate for the position?"

Figure 2b. Figure illustrating how the two sample groups rated the applicant across the four experimental conditions on the variable "did the applicant have the necessary professional competence?"

Figure 2a. Figure illustrating how the two sample groups rated the applicant across the four experimental conditions on the variable "did the applicant give a good first impression?"

In general, the Figures 2a, 2b, and 2c visually illustrate how the two experimental groups rated the extraverted and introverted applicants across the different experimental conditions. The general population seem to be quite in favour of the extraverted applicant in the unstructured interview both in terms of giving a good first impression, and having the necessary professional competence; however, they rated the introverted applicant in the structured interview as reflecting the most ideal candidate for the position. The HR and recruitment personnel group, on the other hand, rated the extraverted applicant in the unstructured condition lower across all the post-video questions, whereas the ratings of the extraverted applicant in the structured condition and the introverted applicants in both experimental conditions were more equal. Moreover, as the figures illustrates, the HR and recruitment personnel's ratings of the extraverted and introverted applicants in the structured interview conditions are quite balanced. In contrast, there were more variance in the ratings of the applicants in these two experimental conditions for the general population group.

A two-way MANOVA, using Pillai's trace, was employed in order to discover whether these differences were significant. We found that there was no significant interaction between the sample groups and experimental conditions, $V = 0.07$, $F(9, 576) = 1.43$, $p > .05$. Moreover, using Pillai's trace, the main effect of sample group on applicant rating also showed that there was no significant effect, $V = 0.02$, $F(3, 190) = 1.36$, $p > .05$. However, using Pillai's trace, the main effect of experimental conditions on applicant rating was significant, $V = 0.11$, $F(9, 576) = 2.32$, $p < .05$.

From Table 5 we see that there are only two measures that are statistically significant.

Table 5

Two-Way MANOVA Summary

Source	Measure	Type III Sum of Squares	df	Mean Square	F
Video	Did the applicant give a good first impression?	3.24	3	1.081	0.57
	Did the applicant have the necessary professional competence?	5.53	3	1.845	0.97
	Did the applicant reflect an ideal candidate for the position?	18.58	3	6.193	2.94**
Sample group	Did the applicant give a good first impression?	1.13	1	1.134	0.59
	Did the applicant have the necessary professional competence?	7.11	1	7.108	3.75
	Did the applicant reflect an ideal candidate for the position?	4.50	1	4.503	2.14
Interaction Video * Sample group	Did the applicant give a good first impression?	13.09	3	4.363	2.27
	Did the applicant have the necessary professional competence?	18.61	3	6.204	3.28**
	Did the applicant reflect an ideal candidate for the position?	8.09	3	2.697	1.28

*** $p < .05$

First, in line with the results for Hypothesis 3, a one-way ANOVA revealed that there was a significant effect of experimental condition on how ideally the applicant is rated, $F(3, 196) = 3.64$, $p < .05$. A planned contrast showed that this difference was not due to personality type, however, as Figure 1 suggested, the planned contrast revealed that the applicants in the structured interview conditions ($M = 4.17/4.42$, $SE = 0.19/0.21$) were rated as significantly more ideal candidates for the position than the applicants in the unstructured conditions ($M = 3.56/3.76$, $SE = 0.19/0.25$), $t(196) = -3.06$, $p < .01$. Moreover, there was a significant interaction effect between sample groups and experimental conditions in regards to how professionally competent the applicant was rated, $F(3, 192) = 3.28$, $p < .05$. Figure 2b visually illustrates this interaction. A pairwise comparison of the interaction effect revealed that there was a significant difference between how the two experimental groups rated the extravert applicant in the unstructured video

condition, in which the general population rated this applicant as significantly more ideal for the position than the HR and recruitment personnel, $F(1, 192) = 13.08$, $p < .001$. However, there was no significant difference between the sample groups in terms of the video conditions extravert/structured ($F(1, 192) = 0.21$, $p > .05$), introvert/structured ($F(1, 192) = 0.51$, $p > .05$), or introvert/unstructured ($F(1, 192) = 0.52$, $p > .05$).

To sum up, we found support that there is significant difference between the ratings of the two experimental groups, however, not for all post-video questions. We found support that there is a significant difference in whether the two experimental groups rated the applicants as an ideal candidate for the position, however, we found no support for this effect for the remaining two post-video questions. Moreover, we found support for a significant interaction effect in whether the two groups rated the applicant as professionally competent, but no significant interaction effect for the remaining questions. Thus, these results only provide partial support for Hypothesis 4.

Hypothesis 5

The results above suggest that there is no difference caused by personality type in terms of whether or not the applicant was rated as an ideal applicant. Since the only significant measure was the interaction between the sample group and experimental condition, the following section will thus only be concentrated on this variable.

There was no significant difference in terms of how professionally competent the general population rated the applicant across the different experimental conditions, $F(3, 192) = 0.41$, $p > .05$; however, there was a significant difference in terms of how professionally competent the HR and recruitment personnel rated the applicants across the different experimental conditions, $F(3, 192) = 5.24$, $p < .01$. A pairwise comparison revealed that the HR and recruitment personnel rated the introvert applicant in the unstructured condition significantly higher ($M = 5.19$, $SD = 1.15$), than the extravert applicant in the unstructured condition ($M = 3.88$, $SD = 1.39$), $p < .001$. Thus, Hypothesis 5, suggesting that the extravert applicant will be favoured over the introvert applicant in the unstructured conditions was not supported.

Hypothesis 6

In line with previous results, a one-way MANOVA, using Pillai's trace, revealed that there was a significant effect of experimental conditions on how the applicant was rated on the three applicant-related questions following the video, $V = 1.12$, $F(9, 588) = 2.82$, $p < .05$, providing a partial support for Hypothesis 6. In line with previous results, the univariate analysis suggest that there is a significant effect of experimental conditions on how ideal the applicant was rated for the position, $F(1, 192) = 2.94$, $p < .05$. On the other hand, whether or not the applicant gave a good first impression was non-significant $F(1, 192) = 0.56$, $p > .05$, as well as whether or not the applicant was perceived as professionally competent, $F(1, 192) = 0.97$, $p > .05$.

Previous results have shown that increased degree of interview structure is an important factor influencing whether or not the applicant will be rated as more ideal for the position, i.e., higher degree of structure is beneficial for both personality types. Surprisingly, in terms of whether or not the applicant is perceived as professionally competent, pairwise comparisons showed that the HR and recruitment personnel rated the introverted applicant in the unstructured condition ($M = 5.19$, $SD = 1.15$) higher than the introverted applicant in the structured condition ($M = 4.89$, $SD = 1.29$); however, this difference was not significant, $p > .05$. Thus, we only found partial support for this hypothesis, and further research is necessary.

Summary of Results

The results of the study suggest that the general population and HR and recruitment personnel tend to perceive and rate applicants differently to a certain extent, and that such differences in ratings perhaps can be traced back to the applicant's personality type (i.e. extravert or introvert). The results suggest that the HR and recruitment personnel are more balanced in their ratings of the applicant in the different experimental conditions, indicating that they might be paying more attention to the content of the applicant's answer, rather than let themselves be influenced by her personality type; whereby the general population may be seen as more biased and more easily influenced by personality- and impression management cues. Regarding degree of interview structure, adding structure to the interview seem to have a clear beneficial effect for both personality types, as

indicated by the ratings of the applicants; the overall ratings of the extravert and introvert applicant in the structured interview condition are close to equal, whereas there is greater range in the overall ratings of the extrovert and introvert applicant in the unstructured interview conditions. Whether or not there exists an unconscious bias against the introverted personality type remain partially unanswered, and will be discussed further below.

General Discussion

The present study aimed to answer mainly two queries; first, whether there exists an unconscious bias against introverts that may cause an extraverted personality type to have an advantage in the recruitment and selection process; and second, if such a bias does exist, whether increased interview structure could reduce its effects. We found no strong evidence that there exists an unconscious bias against introverts that causes extraverts to have an advantage in the recruitment process. As for degree of interview structure, we found some evidence suggesting that adding structure to the interview proved beneficial for both personality types; however, we found no direct support that increased interview structure reduced the effect of an unconscious bias against introverts.

In the following section, the principal findings of the study and their connection to previous research will be discussed more in depth, followed by a discussion of the strengths and weaknesses of the study, implications for practitioners and policymakers, as well as suggestions for future research.

Principal Findings

The first part of the current study consisted of an association test, and the findings indicated that, overall, there is no evidence that extravert-related items are more desireable than introvert-related items, in contrast to previous, similar research by Andersen and Klatzky (1987). In other words, based on the ratings of the extravert-related and introvert-related items, we found no support that there exists an overall unconscious bias against introverts. A possible explanation for why these results were different from what was initially expected may be that some of the adjectives used in the association test may have been somewhat ambiguous, which may have influenced how the adjectives were understood or interpreted by the participants. For instance, two of the extravert-related items (i.e. dominating and talkative) can have negative connotations and thus be rated less preferentially; also, some of the

introvert-related items (e.g. reserved and calm) may have been interpreted in other ways than what was intended. This may have influenced the results of the analysis. Moreover, uneven number of extravert-related items and introvert-related items (five extravert-related items vs. three introvert-related items) in the association test, may also have influenced the statistical results; hence, if the study was to be replicated it would be recommended to employ an equal number of extravert-related and introvert-related adjectives. However, by closer examination of the two experimental groups in the study, we found that the general population were more inclined to favour the extravert-related items, which may indicate a slight presence of an unconscious bias against introvert-related items among the general population. This may be explained in terms of the HR and recruitment personnel being more observant of what personal characteristics are important for the position in question, and therefore, not as inclined as the general population to favour more extravert-related items that are irrelevant for the position (DeGroot & Gooty, 2009); whereas the general population may perceive these extravert-related items as more socially desirable, and connected to a perceived "Extrovert Ideal" (Andersen & Klatzky, 1987; Caldwel & Burger, 1998; Cain, 2012).

The second part of the current study aimed to investigate whether there is an unconscious bias against introverts in the employment interview by comparing four experimental conditions, and to which extent degree of structure may or may not reduce this effect. Keeping experimental groups and degree of structure out of the analysis, i.e., only looking at differences in personality type, the extraverted applicants were not rated as the most ideal candidates; thus, contrary to what we hypothesised, the extraverted applicant did not appear to have an advantage based on her personality type. There might be two possible explanations for this; the first being the design of the study, whereby the interview sequences were scripted and staged, which may not have given a true picture of an extraverted and introverted applicant, also in a real life interview, extraverted applicants may make more use of nonverbal cues and impression management tactics (DeGroot & Gooty, 2009; Kacmar et al., 1992; Dipboye, 1994; Kristof-Brown et al., 2002; Peeters & Lievens, 2006), than what we were able to replicate in this study. Second, given that the survey was online and the environmental conditions of the respondents thereby not being controlled for, the respondents may not have paid full attention to, or watched the full video (as was apparent in some of the Qualtrics Survey reports). In such

cases where the respondents did not watch the full-length video, their responses to the post-video questions may have been distorted, which in turn may have affected the overall results. Looking at differences between the two experimental groups, we found partial evidence suggesting that the two groups perceived the applicants differently, especially regarding the questions of whether the applicant was perceived as an ideal candidate and whether she appeared to have the necessary professional competence. More specifically, the general population tended to favour the extraverted applicant, whereas the HR and recruitment personnel were more critical of the extraverted applicants and more parsimonious and balanced in their ratings overall. This may be traced back to that to the fact that HR and recruitment personnel have professional training, experience, and expertise in assessing an applicant's professional competence and compatibility with a certain position (DeGroot & Gooty, 2009; Hammond et al., 1998), whereas the general population may have a stronger tendency to more frequently judge applicants based on what they perceive as socially desirable, or preferred characteristics of a colleague.

We found no evidence that the unstructured interview, overall, favoured the extraverted applicant, contrary to our initial beliefs. As mentioned earlier, this may be caused by the interview being staged, or the respondents not watching the full-length video interview. Finally, the results indicated that adding structure to the interview was beneficial for both personality types, and furthermore, that increased interview structure evens out the differences in ratings of the extraverted and introverted applicants. Previous research concerning interview structure has found evidence that structured interviews are both more valid (Schmidt & Hunter, 1998) and more helpful in reducing the effect of bias and discrimination (e.g., Bragger et al., 2002; Kutcher & Bragger, 2004; Levashina et al, 2014). Unfortunately, the current study found no direct support for the prediction that increased interview structure reduces the effect of unconscious bias against introverts, as we found no direct result of the existence of such an unconscious bias.

The Extrovert Ideal

In the current study, we found very limited evidence of the Extrovert Ideal as discussed by Caine (2012) in the recruitment and selection process, i.e., overall, extraverted traits did not seem to have an advantage in being perceived as more

socially desirable than introverted traits, although we found some differences between the ratings by the two experimental groups. As mentioned above, it appears as though the HR and recruitment personnel are more critical in their judgement of what characteristics are suitable for a certain position, and less likely to be influenced by irrelevant or unimportant cues or traits. On the other hand, the general population may be more inclined to make use of heuristics in their decision-making (Hammond et al., 1998; Kahneman, 2012), and according to the results of this study, appear to be more biased. This may be an explanation for the limited evidence.

Another explanation could be related to the more recent focus on the positive qualities and characteristics of introverts, both in academia (e.g., Grant et al., 2010) and in popular science (e.g., Caine, 2012). This may have reduced the negative connotations and social stereotypes of introversion, such as the ones revealed in the study by Andersen and Klatzky (1987). For instance, extraversion has long been considered the most desirable trait in leadership, however, more research has been devoted to unravelling the strengths and contributions of introvert leaders as well. Grant et al. (2010), argue that introverted leaders might be more suitable for leading proactive workers, thereby contributing to tearing down the barriers for introvert leaders (Grant et al., 2010). Considering how conscientiousness is the only valid predictor of job performance across occupations (Barrick et al., 2001; Salgado et al., 2015); extraversion (as long as it is not a necessary trait for performance in a certain job), should not be a determining factor in hiring decisions. However, according to the findings in the current study, this does not appear to be an issue.

The Structured Interview

Support for the hypothesis that increased interview structure reduced the effects of an unconscious bias may have been limited due to the fact that the current study did not find strong support for the presence of such an unconscious bias; hence, the study was unable to disclose any direct evidence for whether these effects were reduced or not. However, we did find evidence suggesting that degree of structure did have an effect on applicant ratings. Our results indicated that differences in the ratings of the extraverted and introverted applicants in the unstructured interviews were greater than the differences in ratings of the same applicants in the structured interviews. Previous research (e.g. Kutcher and Bragger, 2004; Bragger et al., 2002; Dipboye, 1994; Condon, 2015) suggests that unstructured interviews are

particularly prone to unconscious biases because the interviewer in such cases may attribute characteristics about the applicants whom they are not given adequate or complete set of information. Our findings may thus reconcile with the previous research in that the respondents in the current study may have been more inclined to attribute characteristics about the extraverted and introverted applicants (e.g., based on personality traits, or verbal and nonverbal cues) in the unstructured interviews, because information about these two candidates were not as clearly communicated as in the structured interviews, and that this may have caused the ratings of the two applicants to be less balanced.

Strengths and Weaknesses of the Study

Strengths

The most prominent strength of the current study is the experimental design, and the fact that no one (at least to our knowledge) has examined unconscious bias against introverts in this way before. Inspired by the experimental design in the research by Bragger et al. (2002) and Kutcher and Bragger (2004), we employed video interviews as a means to make the survey more realistic and interesting. The use of video interviews was also a strength by itself in that this method offered an alternative and dynamic survey that respondents may have found more engaging than a standard questionnaire, at least this was indicated by the feedback we received about the study. In addition, our study further extended (to some extent) on the research by Andersen and Klatzky (1987), by employing an association test (similar, though not identical to theirs) consisting of adjectives associated with extraversion and introversion that respondents would rate on a Likert scale.

We also believe that the novelty of the thesis topic is a potential strength in that it may raise awareness and open the door to further research on the subject of unconscious bias related to personality in the employment interview, by which in time of writing, appears to be a neglected topic in the field of organisational psychology.

Finally, another strength of the current study relates to the fact that we employed a job analysis in order to obtain information and identify the necessary personal characteristics and competencies requisite for performing the stated job tasks in a satisfactorily manner. This job analysis in turn provided the basis for the job description used in the survey, which ensured the appropriateness and

robustness of the job description, i.e., it ensured validity of the job description employed in the survey.

Weaknesses

One particular weakness, which may have affected results of the study, concerns the fact the not all respondents watched the video interviews in full length before answering the post video questions. Qualtrics allows one to check how much time the respondents used to complete the survey, and it was apparent that some participants did not watch the full video, but still completed the questionnaire following the videos. As a result of this, some participants may not have gotten enough information from the videos in order to create a solid impression of the applicant, and answer the following questionnaire in a meaningful manner, and may thus have obscured the results. This was a tendency we saw for some of the respondents, but we have no way of testing whether this had an actual impact on the results. For future studies employing similar design, we suggest a more controlled experimental environment where participants will be required to watch the full video.

In terms of the association test, it seems as though an extraverted applicant would be more ideal; however, according to the second part of the survey containing the video interviews, the introvert was the clear "winner". This contradictory result will need more follow-up. Is there a discrepancy in attitudes towards personality (i.e. a bias towards favouring adjectives associated with extraversion), and the personality type people actually prefer? As mentioned earlier, uneven number of extravert-related items and introvert-related items in the association test may also have influenced the statistical results. Furthermore, these contradictory results may also be explained by the fact that the same items were not used in the association test and the post video questionnaire. Using the same items could perhaps have been more beneficial and provided stronger results, as the ratings would not have been influenced by the respondents' own interpretation of the adjectives, or at least the items would have been held constant, which would have made the ratings easier to compare.

Another limitation of the current study, and a possible reason for why some of the results in the analysis were non-significant, relates to the sample sizes in the two experimental groups, which were not perfectly balanced. The HR and

recruitment personnel group contained 128 respondents, whereas the general population group contained only 72 respondents. The skewed sample size in the two experimental groups may thus have produced limited results for the general population group, hence, there is a possibility that the results have been obscured by Type II error, i.e., the results may have been a false negative in some cases.

Finally, there is a question of generalisability of the results. The results from this study are only applicable to this particular job position, and may not be transferable to other job positions. However, what may be transferable are the results regarding the importance of using high degree of interview structure.

Strengths and Weaknesses in Relation to Other Studies

Even though we did not find direct evidence that adding structure to the interview reduced the effect of unconscious bias, it still extends on previous research suggesting that a structured interview format should be the preferred method (Bragger et al., 2002; Kutcher & Bragger, 2004; Levashina et al., 2014; Macan, 2009; Schmidt & Hunter, 1998; Van Iddekinge et al., 2007). The structured interview, when conducted correctly and based on a thorough job analysis, follows a strict format which provides all applicants with the same questions and basis, which ensures a scientific method to the selection process and makes it a rational process (Dipboye, 1994). Moreover, it is also more capable of identifying appropriate information and assessing the competence and compatibility of the applicant to the position in question.

Theoretical and Practical Implications for Practitioners or Policymakers

Our main finding suggests that adding structure to an employment interview has a positive effect for both extraverted and introverted personality types, regardless of the presence of any unconscious bias. Hence, the implications of the current study are clear for both practitioners and policymakers; when deciding upon interview method, it should be clear that the structured interview is the one to be preferred, based on the results of the current study and the results of previous research.

Although we found limited evidence for a presence of unconscious bias on an overall level, practitioners should be aware of any biases they may have (may they be either conscious and unconscious), and how they can reduce the effects that such biases may cause. Being aware of this is just as important for recent graduates, HR and recruitment personnel, and decision makers with limited experience and

training in personnel selection, as it is for professionals with more expertise, experience and training. A general knowledge of psychology and/or personality may further help HR personnel and recruiters to acknowledge and gain insight into what personal characteristics are important (by means of the job analysis) and thus help to avoid being influenced or misled by irrelevant and unimportant cues or socially desirable traits.

Implications and Directions for Future Research

Due to the scope of the present study, we were limited to the chosen design. With more time and resources, a more preferred method would have been to examine actual employment interviews in real organisations. This way, we could have administered personality questionnaires to the applicants, and thereby get more ecologically valid results in terms of which personality type proved most favourable by HR and recruitment personnel. If future researchers were to implement this kind of design, they would also have to carefully consider the ethical implications for applicants, and especially issues related to the participants or applicants assigned to an unstructured interview condition (given that the unstructured interview is considered to be less valid), as this may lead them to be considered as less qualified, or even unqualified for the job if there is an actual job at stake. Such issues must be considered and adjusted for before employing this kind of method.

Alternatively, the survey would have benefitted from being conducted in a more controlled environment, for instance by dividing all respondents into four groups, and display the video interviews to all of them simultaneously (as previously done by e.g., Bragger et al., 2002 and Kutcher and Bragger, 2004), or by designing the survey in such a way that respondents would not have been allowed to skip through the videos. This would help to ensure that all respondents watched the full-length video before answering the post-video questionnaire. Due to limited resources, we were not able to do this; however, this would be a suggested experimental design for future research replicating this kind of study.

Another interesting approach for future research would be to investigate whether pre-interview information (Dipboye, 1982) about an applicant's personality may influence the ratings of the applicant in an interview, as this is something that also remains unclear in this field of research. That is, if the applicants who are identified as introverts are significantly rated as less ideal

candidates, then this could be another way to uncover whether there exists an unconscious bias against introverts in the recruitment and selection process. It would also interesting to see whether the interviewer's personality may influence the ratings, since we often tend to favour individuals who are more similar to ourselves.

Conclusion

In conclusion, there is much that could be gained from a stronger emphasis on the strengths and contributions that introverts bring to the organisation. The error of excluding introverted applicants based on misconceptions of personality types may be detrimental to an organisation as diversity is considered an important factor for organisational success. Organisations need both extraverted and introverted employees as they bring with them different sets of skills and capabilities into the organisation. Luckily, we did not find strong support for an unconscious bias against introverted applicants; nonetheless, this does not mean that such a bias does not exist. What we found to be interesting, however, is that the results suggest that there might be a difference in how HR and recruitment personnel rate job applicants in comparison to people who do not have formal education in this field, and that this might be a result of misguided perception of personality and its connection to perceived competence. It is promising that the HR and recruitment personnel seems less likely to be influenced by personality and impression management cues, and that an unconscious bias against introverts in the recruitment and selection process is not a significant issue as far as we can tell. However, given the fact that in many organisations, the people responsible for hiring decisions have limited or no formal education related to HR, recruitment, and psychology, one should bear in mind that such a bias may still be present and a potential issue in many organisations.

The topic of unconscious bias in the recruitment and selection process is popular within this field of research; however, in relation to personality traits and types, there is still a long way to go. The current study was an attempt to expand upon the limited existing research in this area, yet, more research is recommended due to the importance of increasing the awareness of the potential discrimination of certain personality types. Moreover, our results reinforce the notion that high degree of interview structure may be seen as means to this end.

References

Andersen, S. M. & Klatzky, R. L. (1987). Traits and Social Stereotypes: Levels of Categorization in Person Perception. *Journal of Personality and Social Psychology*, *53*(2), 235-246.

Barrick, M. R., & Mount, M. K. (1991). The Big Five Personality Dimensions and Job Performance: A Meta-Analysis. *Personnel Psychology*, *44*(1), 1-26.

Barrick, M. R., Mount, M. K., & Judge, T. A. (2001). Personality and Performance at the Beginning of the New Millennium: What Do We Know and Where Do We Go Next? *International Journal of Selection and Assessment*, *9*(1-2), 9-30.

Bragger, J. D., Kutcher, E., Morgan, J., & Firth, P. (2002). The Effects of the Structured Interview on Reducing Biases Against Pregnant Job Applicants. *Sex Roles, 46*, 215-226.

Burgess, R. G. (1984). *In the Field: An Introduction to Field Research.* London: Unwin Hyman.

Cain, S. (2012). *Quiet: The Power of Introverts in a World That Can't Stop Talking.* London: Penguin Books.

Caldwell, D. F., & Burger, J. M. (1998). Personality characteristics of job applicants and success in screening interviews. *Personnel Psychology*, *51*(1), 119-136.

Campion, M. A., Palmer, D. K., & Campion, J. E. (1997). A Review of Structure in the Selection Interview. *Personnel Psychology, 50*(3), 655-702.

Clifford, J. P. (1994). Job Analysis. Why Do It, and How Should It Be Done. *Public Personnel Management, 23*(2), 321-340.

Condon, E. (2015). *The Effects of Interview Length on Gender and Personality Related Bias in Job Interview*s. Scripps Senior Theses. Paper 536.

Conway, J. M., Jako, R. A., & Goodman, D. F. (1995). A meta-analysis of the interrater and internal consistency reliability of selection interviews. *Journal of Applied Psychology, 80*, 565-579.

Costa, P. T., & McCrae, R. R. (1992a). NEO PI-R. Professional manual. Odessa, Fl.: Psychological Assessment Resources.

Costa, P. T., Jr. & McCrae, R. R. (1992b). The Five-Factor Model of Personality and Its Relevance to Personality Disorders. *Journal of Personality Disorders*, *6*(4), 343-359.

DeGroot, T., & Gooty, J. (2009). Can Nonverbal Cues be Used to Make Meaningful Personality Attributions in Employment Interviews?. *Journal of Business and Psychology*, *24*(2), 179-192.

Digman, J. M. (1990). Personality Structure: Emergence of the Five-Factor Model. *Annual Review of Psychology*, *41*(1), 417-440.

Dipboye, R. L. (1982). Self-Fulfilling Prophecies in the Selection-Recruitment Interview. *Academy of Management Review*, *7*(4), 579-586.

Dipboye, R. L. (1994). Structured and Unstructured Selection Interviews: Beyond the Job-Fit Model. *Research in Personnel and Human Resources Management, 12*, 79-123.

Dipboye, R. L., Fontenelle, G. A., & Garner, K. (1984). Effects of Previewing the Application on Interview Process and Outcomes. *Journal of Applied Psychology*, *69*(1), 118-128.

Ericsson, K. A., Krampe, R. T., & Tesch-Römer, C. (1993). The Role of Deliberate Practice in the Acquisition of Expert Performance. *Psychological Review*, *100*(3), 363-406.

Fisher, C., Schoenfeldt, L., & Shaw, J. (2003). Job Analysis: Concepts, Procedures, and Choices. Chapter 4. In *Human Resource Management* (pp. 142-177). Boston: Houghton Mifflin Company.

Fiske, S. T., & Neuberg, S.L. (1990). A continuum of impression formation from category-based to individuating processes: Influences of information and motivation on attention and interpretation. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 23, l-74). New York: Academic Press

Gardner, W. L., Reithel, B. J., Cogliser, C. C., Walumbwa, F. O., & Foley, R. T. (2012). Matching personality and Organizational Culture: Effects of Recruitment Strategy and the Five-Factor Model on Subjective Person–Organization Fit. *Management Communication Quarterly*, *26*(4), 585-622.

Geen, R. G. (1984). Preferred Stimulation Levels in Introverts and Extroverts: Effects on Arousal and Performance. *Journal of Personality and Social Psychology*, *46*(6), 1303-1312.

Gosling, S. D. (2001). From Mice to Men: What Can We Learn About Personality from Animal Research? *Psychological Bulletin*, *127*(1), 45-86.

Grant, A. (2013, June 11th). *What's Wrong with Job Interviews. And How to Fix Them.* Retrieved January 7th, 2017, from Psychology Today: https://www.psychologytoday.com/blog/give-and-take/201306/whats-wrong-job-interviews

Grant, A. M., Gino, F. & Hofmann, D. A. (2010). The Hidden Advantages of Quiet Bosses. *Harvard Business Review*, *88*(2), 8.

Hammond, J. S., Keeney, R. L. & Raiffa, H. (1998). Hidden Traps in Decision Making. *Harvard Business Review*, 76(5), 47-58.

Huffcutt, A. I., Culbertson, S. S., & Weyhrauch, W. S. (2013). Employment Interview Reliability: New meta-analytic estimates by structure and format. *International Journal of Selection and Assessment, 21*(3), 264-276.

Hunter, J. E., & Hunter, R. F. (1984). Validity and Utility of Alternative Predictors of Job Performance. *Psychological Bulletin, 96*(1), 72-98.

Iversen, O. I. (2016, October 17). Lecture 1: Job Analysis [PowerPoint slides]. Oslo: BI Norwegian Business School: Recruitment, Training, and Development. Retrieved from https://www.itslearning.com/ContentArea/ContentArea.aspx?LocationID=12433&LocationType=1

Iversen, O. I. (2017, February 20). Hvorfor bør man gjennomføre en god jobbanalyse før noen ansettes? Retrieved from https://www.oleiversen.no/resources/Jobbanalysen200217.pdf

Kacmar, K. M., Delery, J. E., & Ferris, G. R. (1992). Differential Effectiveness of Applicant Impression Management Tactics in Employment Interview Decisions. *Journal of Applied Psychology, 22*(16), 1250-1272.

Kahneman, D. (2012). *Thinking, fast and slow*. London: Penguin Books.

Kohn, L. S., & Dipboye, R. L. (1998). The Effects of Interview Structure on Recruiting Outcomes. *Journal of Applied Social Psychology, 28*(9), 821-843.

Kristof-Brown, A., Barrick, M. R., & Franke, M. (2002). Applicant Impression Management: Dispositional Influences and Consequences for Recruiter Perceptions of Fit and Similarity. *Journal of Management, 28*(1), 27-46.

Kutcher, E. J., & Bragger, J. D. (2004). Selection Interviews of Overweight Job Applicants: Can Structure Reduce the Bias? *Journal of Applied Psychology, 34*(10), 1993-2022.

Levashina, J., Hartwell, C. J., Morgeson, F. P., & Campion, M. A. (2014). The Structured Employment Interview: Narrative and Quantitative Review of the Research Literature. *Personnel Psychology, 67*, 241-293.

Macan, T. (2009). The Employment Interview: A Review of Current Studies and Directions for Future Research. *Human Resource Management Review, 19*, 203-218.

Matthews, G., Deary, I. J., & Whiteman, M. C. (2009). *Personality Traits* (3rd ed.). New York, NY: Cambridge University Press.

McCrae, R. R., & Costa, P. T., Jr. (2003). *Personality in Adulthood: A Five-Factor Theory Perspective* (2nd. ed.). New York, NY: Guilford Press.

McCrea, R. R., & John, O. P. (1992). An Introduction to the Five-Factor Model and Its Applications. *Journal of Personality*, *60*(2), 175-215.

McCrae, R. R., Gaines, J. E., & Wellington, M. A. (2012). The Five-Factor Model in Fact and Fiction. *Handbook of Psychology*, *5*, 65-91.

McDaniel, M. A., Whetzel, D. L., Schmidt, F. L., & Maurer, S. D. (1994). The Validity of Employment Interviews: A Comprehensive Review and Meta-Analysis. *Journal of Applied Psychology, 79*(4), 599-616.

Mondy, R. W. & Mondy, J. B. (2014a). Recruitment. Chapter 5. In R. W. Mondy, *Human Resource management* (13 ed., pp. 132-155). Pearson Education.

Mondy, R. W., & Mondy, J. B. (2014b). Selection. Chapter 6. In R. W. Mondy, *Human Resource Management* (13th ed., pp. 156-186). Pearson Education.

Motowidlo, S. J., Carter, G. W., Dunnette, M. D., Tippins, N., Werner, S., Burnett, J. R., & Vaughan, M. J. (1992). Studies of the Structured Behavioral Interview. *Journal of Applied Psychology, 77*(5), 571-587.

Nichols, V. (2013). Unconscious Bias. Are You Blocking the Talent Pipe? *CPA Practice Management Forum, 9*(12), 11-12.

Ones, D. S., Viswesvaran, C., & Dilchert, S. (2005). Personality at Work: Raising Awareness and Correcting Misconceptions. *Human Performance*, *18*(4), 389-404.

Peeters, H., & Lievens, F. (2006). Verbal and Nonverbal Impression Management Tactics in Behavior Description and Situational Interviews. *International Journal of Selection and Assessment*, *14*(3), 206-222.

Salgado, J. F., Anderson, N., & Tauriz, G. (2015). The Validity of Ipsative and Quasi-Ipsative Forced-Choice Personality Inventories for Different Occupational Groups: A Comprehensive Meta-Analysis. *Journal of Occupational and Organizational Psychology*, *88*(4), 797-834.

Schmidt, F. L., & Hunter, J. E. (1998). The Validity and Utility of Selection Methods in Personnel Psychology: Practical and Theoretical Implications of 85 Years of Research Findings. *Psychological Bulletin, 124*(2), 262-274.

Stevens, C. K., & Kristof, A. L. (1995). Making the Right Impression: A Field Study of Applicant Impression Management During Job Interviews. *Journal of Applied Psychology, 80*, 587-606.

Van Iddekinge, C. H., McFarland, L. A., & Raymark, P. H. (2007). Antecedents of Impression Management Use and Effectiveness in a Structured Interview†. *Journal of Management, 33*(5), 752-773.

Voskuijl, O. F. (2005). Job Analysis: Current and Future Perspectives. In A. Evers, N. Anderson, & O. Voskuijl, *The Blackwell Handbook of Personnel Selection* (pp. 27-46). Malden, MA: Blackwell.

Weiss, T. (2007, February 22). Surviving the Personality Test. *Forbes*. Retrieved from http://www.forbes.com/2007/02/21/personality-tests-interviewing-leadership-careers_cx_tw_0222bizbasics.html

Appendices

Appendix A: NSD Receipt of Approval

Ole I. Iversen
Institutt for ledelse og organisasjon Handelshøyskolen BI
Nydalsveien 42
0442 OSLO

Vår dato: 15.03.2017   Vår ref: 52691 / 3 / IJJ   Deres dato: Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 01.02.2017. Meldingen gjelder prosjektet:

52691	*Unconscious bias against introverted personality in the recruitment and selection process: the effect of structured vs unstructured interview in reducing bias*
Behandlingsansvarlig	*Handelshøyskolen BI, ved institusjonens øverste leder*
Daglig ansvarlig	*Ole I. Iversen*
Student	*Martine Waller Sørensen*

Personvernombudet har vurdert prosjektet og finner at behandlingen av personopplysninger er meldepliktig i henhold til personopplysningsloven § 31. Behandlingen tilfredsstiller kravene i personopplysningsloven.

Personvernombudets vurdering forutsetter at prosjektet gjennomføres i tråd med opplysningene gitt i meldeskjemaet, korrespondanse med ombudet, ombudets kommentarer samt personopplysningsloven og helseregisterloven med forskrifter. Behandlingen av personopplysninger kan settes i gang.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, http://www.nsd.uib.no/personvern/meldeplikt/skjema.html. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.

Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, http://pvo.nsd.no/prosjekt.

Personvernombudet vil ved prosjektets avslutning, 01.09.2017, rette en henvendelse angående status for behandlingen av personopplysninger.

Vennlig hilsen

Kjersti Haugstvedt

Ida Jansen Jondahl

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

NSD – Norsk senter for forskningsdata AS   Harald Hårfagres gate 29   Tel: +47-55 58 21 17   nsd@nsd.no   Org.nr. 985 321 884
NSD – Norwegian Centre for Research Data   NO-5007 Bergen, NORWAY   Faks: +47-55 58 96 50   www.nsd.no

Kontaktperson: Ida Jansen Jondahl tlf: 55 58 30 19
Vedlegg: Prosjektvurdering
Kopi: Martine Waller Sørensen martine.ws@hotmail.com

Personvernombudet for forskning

Prosjektvurdering - Kommentar

INFORMASJON OG SAMTYKKE

Utvalget informeres skriftlig om prosjektet og samtykker til deltakelse. Det reviderte informasjonsskrivet, motatt 15.03.2017, er godt utformet.

INFORMASJONSSIKKERHET

Personvernombudet legger til grunn at studenter og veileder følger Handelshøyskolen BI sine rutiner for datasikkerhet. Dersom personopplysninger skal sendes elektronisk eller lagres på privat pc/mobile enheter, bør opplysningene krypteres tilstrekkelig.

DATABEHANDLER

Qualitrics er databehandler for prosjektet. Handelshøyskolen BI skal inngå skriftlig avtale med Qualitrics om hvordan personopplysninger skal behandles, jf. personopplysningsloven § 15. For råd om hva databehandleravtalen bør inneholde, se Datatilsynets veileder: http://www.datatilsynet.no/Sikkerhet-internkontroll/Databehandleravtale/.

PROSJEKTSLUTT OG ANONYMISERING

Forventet prosjektslutt er 01.09.2017. Ifølge prosjektmeldingen skal innsamlede opplysninger da anonymiseres. Anonymisering innebærer å bearbeide datamaterialet slik at ingen enkeltpersoner kan gjenkjennes. Det gjøres ved å:
- slette direkte personopplysninger (som navn/koblingsnøkkel)
- slette/omskrive indirekte personopplysninger (identifiserende sammenstilling av bakgrunnsopplysninger som f.eks. bosted/arbeidssted, alder og kjønn)

Vi gjør oppmerksom på at også databehandler må slette personopplysninger tilknyttet prosjektet i sine systemer. Dette inkluderer eventuelle logger og koblinger mellom IP-/epostadresser og besvarelser.

Appendix B: Job Analysis

Job title: HR-generalist	Superior: HR-manager	Department: HR-department

Job Summary (the purpose of the job):
Supervision, counselling and administration of staff. Dealing with HSE (health, safety and environment) and other laws and agreements related to human resources. Assist in recruitment processes, and training and development programs.

Job content: (primary tasks, including the most difficult one	Time	Complexity
Supervision and follow-up of staff, HSE, laws and agreements	15%	2
Follow-up strategic plans and goals and makes sure that they are being met	20%	3
Design and support the delivery of appropriate training and development programs for new and existing employees	20%	3
Manage the offer process and issue the contract of employment	5%	1
Process the candidate as a new starter, ensuring appropriate departments (HR, Payroll, IT, Facilities) are informed	5%	1
Participate in on-boarding process	15%	2
Address employee relations issues, such as conflict, work complaints, or other employee concerns.	15%	3
Assist managers in staff and department meetings	5%	1

Decisions and responsibilities (freedom of action)
The incumbent should follow procedures for establishment and implementation of training and development programs. Responsible for supervision and follow-up of newcomers and existing employees, and provide the necessary guidance, support and counselling. Responsible for maintaining and keep track of HR objectives and plans.

Internal and external environment
The incumbent will communicate with employees at all levels within the organisation.

Education (necessary for doing the job)
MSc in leadership and organisational psychology, HR management, or equivalent

Experience (on top of necessary education)
2-3 years of versatile and relevant experience from HR. Knowledge of and interest for employment of HR systems, e.g. SAP, Workday or equivalent

Other requirements (e.g. driving license, language, etc)
High level skills in oral and written communication.

Personal competencies (characteristics of a high performer)
Ability to work in an *analytical* and systematic manner. *Interpersonal* skills. *Conscientious*; focuses on getting things finished, persists until the job is done.

Appendix C: Job Description Used in the Survey

Stillingsutlysning: HR Rådgiver

I forbindelse med at vi videreutvikler vår HR-avdeling, søker vi deg som er entusiastisk opptatt av HR som fagfelt og har solid kompetanse innenfor personaladministrasjon. Vi søker deg som kan være en god rådgiver og strategisk støttespiller for våre ledere, samt veilede avdelingens arbeid og medarbeidere på en god måte.

Dine arbeidsoppgaver vil være:
- Rådgivning, saksbehandling og oppfølging knyttet til personaladministrasjon, HMS og annet lov- og avtaleverk
- Veiledning og opplæring av eksisterende og nyansatte medarbeidere
- Bidra i rekrutteringsprosesser, bemanningsplaner og kompetanseutvikling
- Etablere og utvikle HR-/personalseksjonen med tydelige ansvarsområder, strategiske arbeidsprosesser og riktig kompetanseprofil

Kvalifikasjoner:
- Høyere utdanning innen psykologi, organisasjonsutvikling og ledelse eller beslektede fagområder
- Relevant og allsidig erfaring fra HR-arbeid
- God kjennskap til, og interesse for bruk av HR-systemer

Appendix D: Manuscripts

Manus strukturert introvert

[Kroppsspråk introvert: Snakke litt saktere og med lavere stemmevolum, ha hendene på fanget, lene seg litt tilbake, virke interessert/engasjert verbalt og nonverbalt, men på en mer diskre måte enn den ekstroverte, reservert men ikke sjenert, se litt mer ut i luften når hun tenker seg om]

Intervjuer: Ja, velkommen til oss! Vi har sett veldig frem til å treffe deg.

Kandidat I: Jo takk det samme *smil*

Intervjuer: Bare for å gi deg litt informasjon før vi starter, dette er et strukturert intervju, noe som betyr at du blir stilt en rekke spørsmål i en bestemt rekkefølge, og at de samme spørsmålene vil bli stilt i samme rekkefølge til alle kandidatene. Jeg vil også be deg om å ikke avbryte eller avspore fra spørsmålene, men spare eventuelle spørsmål til slutt. Selvfølgelig, om et spørsmål er uklart kan du be meg om å gjenta dette. Høres dette greit ut syns du?

Kandidat I: Ja det høres veldig fint ut det altså.

Intervjuer: Kan du fortelle kort om deg selv og din faglige bakgrunn?

Kandidat I: **Tenkepause, se ut i luften**. Ja, jeg kan jo starte med at jeg har en bachelor i økonomi og administrasjon fra BI, og jeg gikk videre til å ta en master i ledelse og organisasjonspsykologi. I løpet av masteren min så hadde jeg et tre måneders internship i HR avdelingen i Atopa som er et nordisk IT firma. De siste to årene har jeg vært ansatt som HR medarbeider i Bring hvor jeg for det meste jobbet med administrative oppgaver som for eksempel ansettelse og litt ajourhold, i tillegg til at jeg bidro med medarbeiderutvikling og arbeidsmiljø.

Intervjuer: Kan du fortelle om en gang du håndterte et kompleks problem? Hva var situasjonen/problemet? *[måler om kandidaten er detaljorientert]*

Kandidat I: Jeg kan ta et eksempel hvor jeg ble kontaktet av noen øvrige ledere i Bring i forbindelse med et prosjekt de jobbet med, og hvor det hadde dukket opp noe i siste liten som de trengte en oversikt over, og de ville at jeg skulle samle dette sammen til en Excel-dokument som de kunne bruke videre når de skulle presentere prosjektet sitt. Jeg følte det var komplekst siden det var veldig mye informasjon som de ville at jeg skulle komprimere til noe mer konkret og lett oversiktlig slik at de kunne bruke dette videre.

Intervjuer: Hvordan gikk du frem for å løse problemet?

Kandidat I: Jeg begynte med å samle sammen informasjon fra de ulike systemene vi bruker i Bring og sorterte ut det som var relevant og tok vekk det som var irrelevant, og på den måten fikk jeg en mer ryddig og god oversikt over all informasjonen. Deretter brukte jeg Excel til å lage en mer systematisk oversikt hvor man lett kunne sammenligne ulike data, og holde seg konkret til det mest sentrale.

Intervjuer: Hva var resultatet?

Kandidat I: Resultatet ble jo Excel-dokumentet som jeg laget, og at lederne fikk den informasjonen de trengte tidsnok slik at de kunne holde deadlinen sin.

Intervjuer: Hvilke tanker hadde du i forkant av problemet, og underveis ifht hvordan du løste det? Er det noe du ville ha gjort annerledes basert på resultatet?

Kandidat I: I starten følte jeg at det var veldig mye informasjon, og at jeg hadde veldig kort tid, og det var litt overveldende i starten. Men så fort jeg kom i gang med å sortere og få oversikt så begynte trådene å løsne litt, og det gikk mye bedre. Hvis jeg skulle gjort noe annerledes så kunne det kanskje ha vært å være litt kjappere med å gå gjennom og sortere all informasjonen, jeg kan kanskje ha en liten tendens til å henge meg opp i detaljer og brukte derfor kanskje litt mye tid på dette i starten.

Intervjuer: I forhold til denne utfordringen, var det noe du syns var spesielt vanskelig?

Kandidat I: Som sagt så var det mye informasjon å holde styr på, og dette var jo litt utfordrende, men jeg føler at den strukturerte siden ved meg hjalp meg med å skape oversikt og løse oppgaven.

Intervjuer: Fikk du noen tilbakemeldinger på dette arbeidet? I så fall, hva var reaksjonene?

Kandidat I: Jeg fikk høre at arbeidet mitt hadde vært til stor hjelp for de som jobbet med dette prosjektet, og at jeg hadde klart å "oppsummere" det viktigste på en tydelig og konkret måte.

Intervjuer: Kan du fortelle om en gang du løste en konflikt mellom to personer, hva var situasjonen? Hva var ditt kjennskap til disse personene? [*måler i hvilken grad personen analyserer, forstår og håndterer mennesker*]

Kandidat I: I Bring jobber jeg jo med medarbeiderutvikling, og det var et tilfelle der det var litt uenighet mellom en leder og en medarbeider i forhold til progresjonen som var forventet av han medarbeideren i forhold til en forfremmelse, og de kom til

meg for å få løst opp i dette. Lederen mente at han ikke hadde prestert godt nok til å rykke opp i sin stilling, mens han medarbeideren var uenig i dette.

Intervjuer: Hvordan gikk du frem for å løse konflikten?

Kandidat I: Jeg ønsket vel å få begges perspektiv på saken, så jeg startet med å snakke med dem på tomannshånd, en og en etter tur. Etterpå satte vi oss ned sammen og prøvde å komme til enighet.

Intervjuer: Hva var resultatet, ble konflikten løst?

Kandidat I: Gjennom samtalene med dem alene kom det frem at det hadde oppstått noen misforståelser, og han følte at det ble stilt krav til ham som ikke hadde blitt formidlet godt nok på et tidligere tidspunkt ifht. hva som var nødvendig for å rykke opp i stilling. Lederen var uenig i dette. De ble enige om å utsette forfremmelsen, men at de skulle ta avgjørelsen på nytt om 5 måneder istedenfor å vente et helt år. I tillegg ble vi enige om at kravene skulle formidles tydelig, og skriftlig, slik at det ikke skulle oppstå noen usikkert og misforståelse rundt dette.

Intervjuer: Hvilke tanker gjorde du deg opp ifht å løse konflikten? Var det noe du synes var spesielt vanskelig eller utfordrende? Er det noe du ville ha gjort annerledes hvis du skulle løst en lignende situasjon på nytt?

Kandidat I: Begge to var jo veldig bestemte og sikre i sin sak, spesielt han som følte seg urettferdig behandla, og det var en litt sensitiv sak. Jeg syns det var utfordrende siden jeg måtte passe på veldig hva jeg sa og måtte holde meg upartisk og objektiv gjennom hele prosessen. Skulle jeg gjort det igjen, hadde jeg vel løst det på samme måte vil jeg tro. Jeg syns vi kom frem til en god løsning.

Intervjuer: Hva følte du om å skulle løse en konflikt mellom to personer?

Kandidat I: Jeg følte det var en veldig interessant utfordring, og litt ulikt konflikter jeg har løst tidligere.

Intervjuer: Hva var reaksjonene til de to personene som var involvert? Fikk du noen tilbakemelding av dem ifht. hvordan du håndterte det?

Kandidat I: Jeg tror nok vi alle var enige i at det var den mest optimale løsningen for situasjonen, men han ble selvfølgelig skuffet over at forfremmelsen måtte utsettes. Men alle kan ikke vinne alltid.

Manus strukturert ekstrovert

[Kroppsspråk ekstrovert: Høyere stemmevolum, snakker av og til litt fortere, flere og større armbevegelser, være litt mer foroverlent, av og til legge hendene på bordet, flere verbale og nonverbale uttrykk]

Intervjuer: Ja, velkommen til oss da! Vi har sett veldig frem til å treffe deg

Kandidat I: Jo, takk det samme *smil*

Intervjuer: Bare for å gi deg litt informasjon før vi går i gang. Dette er et strukturert intervju, noe som betyr at du blir stilt en rekke spørsmål i en bestemt rekkefølge, og at de samme spørsmålene vil bli stilt i samme i samme rekkefølge til alle kandidatene. Jeg vil også be deg om å ikke avbryte eller avspore fra spørsmålene, men spare eventuelle spørsmål til slutt. Selvfølgelig, om et spørsmål er uklart kan du be meg om å gjenta dette. Høres dette greit ut synes du?

Kandidat E: Ja, det høres veldig fint ut det.

Intervjuer: Kan du fortelle kort om deg selv og din faglige bakgrunn?

Kandidat E: Ja, jeg kan jo starte med at jeg har en bachelor i økonomi og administrasjon fra BI, og jeg gikk videre til å ta en master i ledelse og organisasjonspsykologi. I løpet av masteren min så hadde jeg et også tre måneders internship i HR avdelingen i Atopa, som er et nordisk IT firma. De siste to årene har jeg vært ansatt som HR medarbeider i Bring hvor jeg for det meste jobbet med administrative oppgaver som for eksempel ansettelser og litt ajourhold, i tillegg til at jeg bidro med medarbeiderutvikling og arbeidsmiljø. Og ellers, bare for å fortelle litt mer om meg selv, er jeg veldig glad i å tilbringe tid med venner og som for eksempel å dra på konserter, reise, trene en del, osv. Liker at det skjer mye rundt meg da kan du si.

Intervjuer: Kan du fortelle kort om deg selv og din faglige bakgrunn?

Kandidat E: Hmm.. Ja, jeg kan jo starte med at jeg har en bachelor i økonomi og administrasjon fra BI, og jeg gikk videre til å ta en master i ledelse og organisasjonspsykologi. I løpet av masteren min så hadde jeg et tre måneders internship i HR avdelingen i Atopa som er et nordisk IT firma. De siste to årene har jeg vært ansatt som HR medarbeider i Bring hvor jeg for det meste jobbet med administrative oppgaver som for eksempel ansettelse og litt ajourhold, i tillegg til at jeg bidro med medarbeiderutvikling og arbeidsmiljø.

Intervjuer: Kan du fortelle om en gang du håndterte et kompleks problem? Hva var situasjonen/problemet?

Kandidat E: Jeg kan ta et eksempel hvor jeg ble kontaktet av noen øvrige ledere i Bring i forbindelse med et prosjekt de jobbet med, og hvor det hadde dukket opp noe i siste liten som de trengte en oversikt over, og de ville at jeg skulle samle dette sammen til en Excel-dokument som de kunne bruke videre når de skulle presentere prosjektet sitt. Jeg følte det var komplekst siden det var veldig mye informasjon som de ville at jeg skulle komprimere til noe mer konkret og lett oversiktlig slik at de kunne bruke dette videre.

Intervjuer: Hvordan gikk du frem for å løse problemet?

Kandidat E: Jeg begynte med å samle sammen informasjon fra de ulike systemene vi bruker i Bring og sorterte ut det som var relevant og tok vekk det som var irrelevant, og på den måten fikk jeg en mer ryddig og god oversikt over all informasjonen. Deretter brukte jeg Excel til å lage en mer systematisk oversikt hvor man lett kunne sammenligne ulike data, og holde seg konkret til det mest sentrale.

Intervjuer: Hva var resultatet?

Kandidat E: Resultatet ble jo Excel-dokumentet som jeg laget, og at lederne fikk den informasjonen de trengte tidsnok slik at de kunne holde deadlinen sin.

Intervjuer: Hvilke tanker hadde du i forkant av problemet, og underveis ifht hvordan du løste det? Er det noe du ville ha gjort annerledes basert på resultatet?

Kandidat E: I starten følte jeg at det var veldig mye informasjon, og at jeg hadde veldig kort tid, og det var litt overveldende i starten. Men så fort jeg kom i gang med å sortere og få oversikt så begynte trådene å løsne litt, og det gikk mye bedre. Hvis jeg skulle gjort noe annerledes så kunne det kanskje å vært litt kjappere med å gå gjennom og sortere all informasjonen, jeg kan kanskje ha en liten tendens til å henge meg opp i detaljer og brukte derfor kanskje litt mye tid på dette i starten.

Intervjuer: I forhold til denne utfordringen, var det noe du syns var spesielt vanskelig?

Kandidat E: Som sagt så var det mye informasjon å holde styr på, og dette var jo litt utfordrende, men jeg føler at den strukturerte siden ved meg hjalp meg med å skape oversikt og løse oppgaven.

Intervjuer: Fikk du noen tilbakemeldinger på dette arbeidet? I så fall, hva var reaksjonene?

Kandidat E: Jeg fikk høre at arbeidet mitt hadde vært til stor hjelp for de som jobbet med dette prosjektet, og at jeg hadde klart å "oppsummere" det viktigste på en tydelig og konkret måte.

Intervjuer: Kan du fortelle om en gang du løste en konflikt mellom to personer, hva var situasjonen? Hva var ditt kjennskap til disse personene?

Kandidat E: I Bring jobber jeg jo med medarbeiderutvikling, og det var et tilfelle der det var litt uenighet mellom en leder og en medarbeider i forhold til progresjonen som var forventet av han medarbeideren i forhold til en forfremmelse, og de kom til meg for å få løst opp i dette. Lederen mente at han ikke hadde prestert godt nok til å rykke opp i sin stilling, mens han medarbeideren var uenig i dette.

Intervjuer: Hvordan gikk du frem for å løse konflikten?

Kandidat E: Jeg ønsket vel å få begges perspektiv på saken, så jeg startet med å snakke med dem på tomannshånd, en og en etter tur. Etterpå satte vi oss ned sammen og prøvde å komme til enighet.

Intervjuer: Hva var resultatet, ble konflikten løst?

Kandidat E: Gjennom samtalene med dem alene kom det frem at det hadde oppstått noen misforståelser, og han følte at det ble stilt krav til ham som ikke hadde blitt formidlet godt nok på et tidligere tidspunkt ifht. hva som var nødvendig for å rykke opp i stilling. Lederen var uenig i dette. De ble enige om å utsette forfremmelsen, men at de skulle ta avgjørelsen på nytt om 5 måneder istedenfor å vente et helt år. I tillegg ble vi enige om at kravene skulle formidles tydelig, og skriftlig, slik at det ikke skulle oppstå noen usikkert og misforståelse rundt dette.

Intervjuer: Hvilke tanker gjorde du deg opp ifht å løse konflikten? Var det noe du synes var spesielt vanskelig eller utfordrende? Er det noe du ville ha gjort annerledes hvis du skulle løst en lignende situasjon på nytt?

Kandidat E: Begge to var jo veldig bestemte og sikre i sin sak, spesielt han som følte seg urettferdig behandla, og det var en litt sensitiv sak. Jeg syns det var utfordrende siden jeg måtte passe på veldig hva jeg sa og måtte holde meg upartisk og objektiv gjennom hele prosessen. Skulle jeg gjort det igjen, hadde jeg vel løst det på samme måte vil jeg tro. Jeg syns vi kom frem til en god løsning.

Intervjuer: Hva følte du om å skulle løse en konflikt mellom to personer?

Kandidat E: Jeg følte det var en veldig interessant utfordring, og litt ulikt konflikter jeg har løst tidligere.

Intervjuer: Hva var reaksjonene til de to personene som var involvert? Fikk du noen tilbakemelding av dem ifht. hvordan du håndterte det?

Kandidat E: Jeg tror nok vi alle var enige i at det var den mest optimale løsningen for situasjonen, men han ble selvfølgelig skuffet over at forfremmelsen måtte utsettes. Men alle kan ikke vinne alltid.

Manus ustrukturert introvert

Intervjuer: Ja, velkommen til oss da! Vi har sett veldig frem til å treffe deg

Kandidat I: Jo, takk det samme *smil*

Intervjuer: Bare for å gi deg litt informasjon før vi går i gang. Vi følger ikke noe bestemt format og du kan se på det mer som en uformell samtale for å bli kjent med deg, så du må gjerne spørre spørsmål underveis og avbryte, og la meg få vite hvis det er noe du føler vi har oversett i dette intervjuet. Høres dette greit ut synes du?

Kandidat I: Ja, det høres veldig fint ut det.

Intervjuer: Ja, vi kan jo starte med at du forteller litt om deg selv og din faglige bakgrunn.

Kandidat I: ****_Tenker seg om, ser ut i luften_**** Ja, jeg kan jo starte med at jeg har en bachelor i økonomi og administrasjon fra BI, og jeg gikk videre til å ta en master i ledelse og organisasjonspsykologi. I løpet av masteren min så hadde jeg et tre måneders internship i HR avdelingen i Atopa som er et nordisk IT firma. De siste to årene har jeg vært ansatt som HR medarbeider i Bring hvor jeg for det meste jobbet med administrative oppgaver som for eksempel ansettelse og litt ajourhold, i tillegg til at jeg bidro med medarbeiderutvikling og arbeidsmiljø.

Intervjuer: Interessant. Hvis du kunne velge, hvordan foretrekker du å jobbe? Liker du best å arbeide selvstendig eller i team?

Kandidat I: Jeg trives godt både som selvstendig og i et team. Men må jeg velge en vil det nok bli å jobbe selvstendig fordi dette gir meg tid og rom til å fokusere på arbeidsoppgavene mine uten mange forstyrrelser og også kunne grave meg ned i oppgave slik jeg selv ønsker. Når det er sagt, så synes jeg det kan være fint å samarbeide i etterkant for å gå gjennom ideer, se flere perspektiver, og diskutere ulike løsninger og fremgangsmåter osv, men litt alenetid er nødvendig for min del.

Intervjuer: Kan du gi noen eksempler på dette?

Kandidat I: Tja... For eksempel liker jeg å ha visse oppgaver som er "bare mine", hvor jeg får mulighet til å jobbe selvstendig, og hvor jeg kan trekke meg tilbake på et kontor eller et skjermet område, for deretter å konsultere med andre etter litt

egen refleksjon eller når jeg selv får behov for det, heller enn å starte arbeidet fellesskap.

Intervjuer: Akkurat ja, så du vil si at du opplever at det kan være lettere å komme igang når det gis tid til egen refleksjon først?

Kandidat I: Ja litt sånn. Jeg kan kanskje føler det litt sånn "flere kokker mer søl", spesielt i startfasen av et prosjekt eller en oppgave. At det fort kan bli mange tanker og ideer som kastes på bordet uten at det egentlig blir tid til å prosessere det ordentlig? Hvis det gir mening?

Intervjuer: Ja, det gir mening. Her kan man si at det vil være litt variert, om du jobber i team eller selvstendig, avhengig av hva slags arbeid som er aktuelt der og da. Og du som er glad i å jobbe mer selvstendig må også innstille deg på at det vil bli tider hvor du jobber en del i team. Er det noe du tror du er komfortabel med?

Kandidat I: Jaja, det skal nok gå fint -- så lenge jeg har muligheten til å kunne trekke meg litt tilbake innimellom når jeg har behov for det.

Intervjuer: Ja, men det er mye fleksibilitet på det her hos oss.

Kandidat I: Ja men det er bra :)

Intervjuer: Kan du fortelle meg litt mer om hvilken rolle pleier du å ta i et team?

Kandidat I: Jeg er ikke den som normalt tar lederrollen eller snakker høyest i gruppen. Jeg holder meg gjerne litt i bakgrunnen, og er den litt stille som helst liker å lytte og høre på hva de andre i gruppen har å si. Jeg kommer gjerne med forslag og ideer, og er ikke redd for å diskutere og si i fra hva jeg mener, men er det personer med store personligheter og mange ideer, vil jeg ofte la de snakke først, men jeg sier selvfølgelig ifra hvis det er noe jeg er uenig i og sier også å det jeg har på hjertet, så jeg føler ikke nødvendigvis at jeg er sjenert, og jeg kan også ta en mer sentral rolle hvis det er en sak eller et tema jeg brenner for eller hvis jeg føler at ingen andre tar lederrollen så kan jeg nok også gjøre det.

Intervjuer: Kan dette være litt av grunnen til at du også, som du sa tidligere, foretrekker å starte et felles prosjekt med selvstendig refleksjon først?

Kandidat I: Ja, dette høres riktig ut.

Intervjuer: Som jeg sa tidligere vil de jo være litt av begge deler her, så dersom du skulle fått jobben vil du fint kunne tilpasse dette som du selv ønsker det.
Kan jeg spørre deg om hvilke aspekter ved stillingen som fikk deg til å søke jobb hos oss?

Kandidat I: Jeg liker å jobbe med mennesker og er også veldig interessert i å utvikle meg videre innen HR, så denne stillingen virker å være et naturlig steg videre i den retningen jeg ønsker å gå. Jeg synes det virker interessant å kunne videreutvikle meg enda mer innenfor rådgivning og også kompetanseutvikling. Jeg synes stillingen virker veldig aktuell fordi det gir meg mulighet til å være en sentral brikke i bedriften og få innsikt både på leder- og medarbeidernivå, også synes jeg synes stillingen virker å bygge videre på erfaringene jeg har fra tidligere, men gi meg mer ansvar og spisskompetanse.

Intervjuer: Kan du gi meg noen eksempler på hvordan du mener denne stillingen kan bygge videre på din tidligere erfaring, og hvorfor du mener dette er relevant for denne stillingen?

Kandidat I: **_Tenker seg om i noen sekunder_** Ehm, jeg vil jo påstå at studieretningen min har gitt meg god forståelse og gitt meg grunnleggende kompetanse innenfor HR-feltet, og jeg følte dette hjalp meg veldig da jeg hadde internship i Atopa og i min første jobb i Bring. Ehm, i forhold til oppgaver, i Bring så har jeg hatt en litt mer HR-generell rolle og jobber med alt fra rekruttering til administrative oppgaver. Litt mer konkret så assisterte jeg i rekrutteringsprosessen til Posten/Brings graduate-program, hvor jeg blant annet var hovedansvarlig for kontakt og oppfølging av kandidater, og eg jobber også med ajourhold, arkivering av arbeidskontrakter, og den slags ting da. Føler vel egentlig at tidligere erfaringer har gitt meg nødvendig kompetanse for å ta dette steget videre.

Intervjuer: Ja, det høres bra ut. Vil du si at dette er arbeidsoppgaver som gir deg energi, eller er det andre type arbeidsoppgaver drives du av?

Kandidat I: Kanskje ikke arkivering er det som gir meg mest energi, men jeg likte veldig godt å jobbe med Graduate programmet, fordi dette gav meg mulighet for å være med på et stort og omfattende prosjekt fra start til slutt. Og selv om det var mye som skjedde og mange mennesker involvert, av både ansatte og kandidater, så synes jeg ikke det var slitsomt på noen måte. Sikkert litt fordi jeg jobbet mer "bak i kulissene", og hadde ansvar for den mer administrative delen av gjennomføringen, som for eksempel excel-oversikter, lage dagsplaner, en-til-en kontakt med kandidater og den type ting, heller enn å være den som hadde ansvar for presentasjoner, foredrag, eller være den som stod i front.

Intervjuer: Så du er ikke så glad i å være "the center of attention"?

Kandidat I: Det gjør meg ingenting hvis det er i en mer komfortabel setting med mennesker jeg kjenner, eller i mindre grupper, men som for eksempel presentasjoner foran store forsamlinger, eller mange ukjente personer kan jeg fint overlate til noen andre som har mer lyst til dette. Også har det kanskje litt å gjøre med at jeg gjerne foretrekker å lytte fremfor å snakke, hvertfall før jeg føler at jeg har tenkt gjennom mine egne ideer og tanker og vet hva jeg vil si.

Intervjuer: Det er godt å høre da. Hvordan vil du si at du håndterer en stressende situasjon (fade ut).

Intervjuer: Det er godt å høre da. Hvordan vil du si at du håndterer en stressende situasjon (fade ut).

Manus ustrukturert ekstrovert

Intervjuer: Ja, velkommen til oss a! Vi har sett veldig frem til å treffe deg

Kandidat E: Jo, takk det samme *smil*

Intervjuer: Bare for å gi deg litt informasjon før vi går i gang. Vi følger ikke noe bestemt format og du kan se på det mer som en uformell samtale for å bli kjent med deg, så du må gjerne spørre spørsmål underveis og avbryte, og la meg få vite hvis det er noe du føler vi har oversett i dette intervjuet. Høres dette greit ut synes du?

Kandidat E: Ja, det høres veldig fint ut det.

Intervjuer: Ja, vi kan jo starte med at du forteller litt om deg selv og din faglige bakgrunn.

Kandidat E: Ja, jeg kan jo starte med at jeg har en bachelor i økonomi og administrasjon fra BI, og jeg gikk videre til å ta en master i ledelse og organisasjonspsykologi. I løpet av masteren min så hadde jeg et tre måneders internship i HR avdelingen i Atopa som er et nordisk IT firma. De siste to årene har jeg vært ansatt som HR medarbeider i Bring hvor jeg for det meste jobbet med administrative oppgaver som for eksempel ansettelse og litt ajourhold, i tillegg til at jeg bidro med medarbeiderutvikling og arbeidsmiljø.
Ellers, bare for å fortelle litt mer om meg selv, er jeg veldig glad i å tilbringe tid med venner som for eksempel å dra på konserter, reise, trene, osv. Liker at det skjer mye rundt meg.

Intervjuer: Interessant, så du er en ganske aktiv person?

Kandidat E: Ja, jeg får energi av å være med andre mennesker, og jeg liker å tilbringe mye av min fritid på å være med på forskjellige aktiviteter som for eksempel konserter, eller være med vennegjengen min, og treffe nye mennesker. Jeg er også veldig glad i å trene og bruker en del tid på dette.

Intervjuer: Åja, hva slags trening er du driver med?

Kandidat E: Det går mye i gruppetimer på SATS, også er jeg glad i å løpe ute når det er forhold til det. På vinteren går jeg også en del på ski.

Intervjuer: Vi har jo en skigruppe her i bedriften som kanskje kunne vært aktuelt for deg. På vinteren drar de ofte på turer sammen.

Kandidat E: Ja, det kunne jeg godt tenkt meg å bli med på! Det er så bra når bedrifter arrangerer sosiale sammenkomster utenom arbeidstid.

Intervjuer: Du sier du liker å være med andre mennesker, hvordan er dette i en arbeidssammenheng, hvordan liker du å jobbe?

Kandidat E: Jeg foretrekker å arbeide i team fordi jeg føler at jeg jobber bedre når jeg har flere rundt meg som kommer med ideer og innspill, og jeg har en tendens til å bli distrahert om jeg jobber selvstendig, men dette kommer selvfølgelig an på hva slags arbeid det er snakk om. Å jobbe i team gjør at man kan spille hverandre god og jeg føler at det har mer nytteverdi for meg, fordi læringsutbytte er større hvor jeg vokser som person samt lærer av andre.
Hvordan er det dere arbeider her, er det mye selvstendig arbeid, eller jobber dere mye i team?

Intervjuer: Her vil det være litt av begge deler, det avhenger av hva slags arbeid som er aktuelt der og da, og du som er glad i samarbeid må også innstille deg på at det vil også bli tider hvor du jobber en del selvstendig. Er det noe du tror du er komfortabel med?

Kandidat E: Ja, det skal nok gå fint.

Intervjuer: Så du trives også med selvstendig arbeid?

Kandidat E: Jaja, jeg kan jobbe godt på egenhånd og kan også trives med dette, men å jobbe i team gir meg mye energi, og jeg ville nok derfor syntes at det ville blitt litt kjedsommelig i lengden å kun skulle jobbet alene. Men hvis det er en kombinasjon så er dette bare positivt.

Intervjuer: Ja, ikke sant. Det er godt å høre. Litt tilbake til dette med team. Når du samarbeider med andre, hva slags rolle pleier du å ta?

Kandidat E: Jeg bruker å innta en sentral rolle i teamet, og jeg liker å ta lederrollen, men selvfølgelig er jeg også komfortabel med at andre gjør det. Det var også noe at det som fanget min interesse ved denne stillingen, at det gir meg mulighet til å være en sentral brikke i bedriften og få innsikt både på leder- og medarbeidernivå.

Intervjuer: Akkurat ja, ja det er det absolutt gode muligheter for. Hvilke andre aspekter ved stillingen synes du virker interessant?

Kandidat E: Jeg liker å jobbe med mennesker og er også veldig interessert i å utvikle meg videre innen HR, så denne stillingen virker å være et steg videre i den retningen jeg ønsker å gå. Jeg synes det virker interessant å kunne videreutvikle meg enda mer innenfor rådgivning og kompetanseutvikling.

Intervjuer: Ja dette høres interessant ut. Kan du utdype litt mer i forhold til hvilken erfaring du har fra tidligere studie og jobb som du mener vil være relevant for denne stillingen?

Kandidat E: For det første så vil jeg jo påstå at studieretningen min har gitt meg god forståelse for menneskelige ressurser i organisasjoner og grunnleggende kompetanse i HR-feltet. Dette har gitt meg et faglig grunnlag som jeg kunne bygge videre på både i internshipet mitt i Atopa og senere i min første jobb i Bring. I Bring hadde jeg en litt mer HR-generell rolle og jobbet med alt fra rekruttering til administrative oppgaver, og fikk bedre innsikt i den brede variasjonen som er innen HR.

Intervjuer: Har du noen litt mer konkrete eksempler?

Kandidat E: Jaa, skal vi se.. For eksempel så assisterte jeg i teamet som var ansvarlig for planlegging og gjennomføring av rekrutteringsprosessen til Posten/Brings graduate-program, hvor jeg blant annet var hovedansvarlig for kontakt og oppfølging av kandidater. I tillegg jobbet mye med opprettelse og arkivering av arbeidskontrakter av ulikt slag. Ifølge annonsen virker denne stillingen å bygge videre på det jeg allerede har jobbet med, men med muligheter for mer ansvar og spisskompetanse.

Intervjuer: Vil du si at dette er arbeidsoppgaver som gir deg energi, eller er det andre type arbeidsoppgaver drives du av?

Kandidat E: Jeg drives av arbeidsoppgaver som gir meg muligheten til å være i kontakt med mennesker, som for eksempel rekruttering, talentutvikling, osv... Jeg er veldig glad i å møte nye mennesker, snakke med de og bli kjent med de, og jeg mener jeg er en god relasjonsbygger.

Intervjuer: Interessant. Du nevnte tidligere at du liker å ha en sentral rolle, vil du også beskrive deg som en som liker bedre å snakke enn å lytte?

Kandidat E: Det kommer an på situasjonen, men ender ofte opp med å snakke mer enn å lytte. Det er hvertfall det jeg får høre av venner og kolleger (**hehehe**).

Intervjuer: (**hehehe**) Javel? Kan du utdype dette litt mer?

Kandidat E: Jeg har en tendens til å bli litt ivrig i sosiale relasjoner og har nok et behov for å snakke. Jeg er også veldig glad i å snakke med nye mennesker og skape nye relasjoner, men jeg er også interessert i å høre hva andre har å si selvfølgelig, og spesielt når det er snakk om samarbeid i en profesjonell sammenheng.

Intervjuer: Det er godt å høre da. Hvordan vil du si at du håndterer en stressende situasjon (fade ut).

Appendix E: Tables

Table E1

Complete Overview of All Items Employed in Association Test

Item	Group	M	SD	N
Goal Oriented	HR & Recruitment Personnel	5.55	1.149	128
	General Population	5.53	1.186	72
	Total	5.54	1.160	200
Outgoing	HR & Recruitment Personnel	5.05	1.093	128
	General Population	5.40	1.263	72
	Total	5.18	1.167	200
Trustful	HR & Recruitment Personnel	5.90	1.229	128
	General Population	6.21	0.871	72
	Total	6.01	1.121	200
Talktative	HR & Recruitment Personnel	3.43	1.247	128
	General Population	4.24	1.379	72
	Total	3.72	1.349	200
Calm	HR & Recruitment Personnel	4.84	1.104	128
	General Population	5.14	1.248	72
	Total	4.95	1.164	200
Impulsive	HR & Recruitment Personnel	2.59	1.053	128
	General Population	3.17	1.463	72
	Total	2.80	1.244	200
Creative	HR & Recruitment Personnel	4.13	1.346	128
	General Population	4.58	1.480	72
	Total	4.29	1.409	200
Dominating	HR & Recruitment Personnel	2.44	1.234	128
	General Population	2.78	1.436	72
	Total	2.56	1.317	200
Detail Oriented	HR & Recruitment Personnel	4.88	1.423	128
	General Population	5.25	1.412	72
	Total	5.02	1.427	200
Down to earth	HR & Recruitment Personnel	4.79	1.047	128
	General Population	5.29	1.305	72
	Total	4.97	1.169	200
Reliable	HR & Recruitment Personnel	6.41	0.670	128
	General Population	6.39	0.761	72
	Total	6.41	0.702	200
Organised	HR & Recruitment Personnel	6.26	0.713	128
	General Population	6.19	0.882	72
	Total	6.24	0.776	200
Contemplative	HR & Recruitment Personnel	4.94	1.202	128
	General Population	5.19	1.121	72
	Total	5.03	1.177	200
Sociable	HR & Recruitment Personnel	5.70	0.845	128
	General Population	5.63	1.215	72
	Total	5.68	0.992	200
Energetic	HR & Recruitment Personnel	4.77	1.179	128
	General Population	4.71	1.388	72
	Total	4.75	1.255	200
Critical	HR & Recruitment Personnel	4.54	1.170	128
	General Population	4.99	1.169	72
	Total	4.70	1.186	200
Restrained	HR & Recruitment Personnel	5.31	1.189	128
	General Population	5.61	1.082	72
	Total	5.42	1.158	200

Table E2

Means and Standard Deviations for the Different Conditions

Measure	Condition	Group	M	SD	N
Did the applicant give a good first impression?	Extravert Unstructured	HR & Recruitment Personnel	4.18	1.381	34
		General Population	5.17	1.043	18
		Total	4.52	1.350	52
	Extravert Structured	HR & Recruitment Personnel	4.85	1.368	39
		General Population	5.00	1.414	15
		Total	4.89	1.369	54
	Introvert Structured	HR & Recruitment Personnel	4.75	1.351	28
		General Population	4.79	1.587	24
		Total	4.77	1.450	52
	Introvert Unstructured	HR & Recruitment Personnel	4.81	1.241	27
		General Population	4.27	1.710	15
		Total	4.62	1.431	42
	Total	HR & Recruitment Personnel	4.64	1.356	128
		General Population	4.82	1.466	72
		Total	4.71	1.396	200
Did the applicant have the necessary professional competence?	Extravert Unstructured	HR & Recruitment Personnel	3.88	1.387	34
		General Population	5.33	1.188	18
		Total	4.38	1.484	52
	Extravert Structured	HR & Recruitment Personnel	4.74	1.292	39
		General Population	4.93	1.580	15
		Total	4.80	1.365	54
	Introvert Structured	HR & Recruitment Personnel	4.89	1.286	28
		General Population	5.17	1.659	24
		Total	5.02	1.462	52
	Introvert Unstructured	HR & Recruitment Personnel	5.19	1.145	27
		General Population	4.87	1.598	15
		Total	5.07	1.314	42
	Total	HR & Recruitment Personnel	4.64	1.362	128
		General Population	5.10	1.503	72
		Total	4.81	1.427	200
Did the applicant reflect an ideal candidate for the position?	Extravert Unstructured	HR & Recruitment Personnel	3.24	1.281	34
		General Population	4.17	1.383	18
		Total	3.56	1.378	52
	Extravert Structured	HR & Recruitment Personnel	4.13	1.361	39
		General Population	4.27	1.534	15
		Total	4.17	1.397	54
	Introvert Structured	HR & Recruitment Personnel	4.21	1.197	28
		General Population	4.67	1.761	24
		Total	4.42	1.486	52
	Introvert Unstructured	HR & Recruitment Personnel	3.85	1.379	27
		General Population	3.60	1.993	15
		Total	3.76	1.605	42

Table E3

MANOVA Pairwise Comparisons by Experimental Condition

Experimental Condition	Group		Mean Difference	SE
Extravert Unstructured	HR & Recruitment Personnel	General Population	-1,451[*]	0.401
	General Population	HR & Recruitment Personnel	1,451[*]	0.401
Extravert Structured	HR & Recruitment Personnel	General Population	-0.190	0.418
	General Population	HR & Recruitment Personnel	0.190	0.418
Instrovert Structured	HR & Recruitment Personnel	General Population	-0.274	0.383
	General Population	HR & Recruitment Personnel	0.274	0.383
Introvert Unstructured	HR & Recruitment Personnel	General Population	0.319	0.443
	General Population	HR & Recruitment Personnel	-0.319	0.443

* $p < .001$

Table E4

MANOVA Pairwise Comparisons by Group

Group	Experimental Condition		Mean Difference	SE
HR & Recruitment Personnel	Extravert Unstructured	Extravert Structured	-,861[*]	0.323
		Introvert Strucutred	-1,011[*]	0.351
		Introvert Unstructured	-1,303[*]	0.355
	Extravert Structured	Extravert Unstructured	,861[*]	0.323
		Introvert Structured	-0.149	0.341
		Introvert Unstructured	-0.442	0.345
	Introvert Structured	Extravert Unstructured	1,011[*]	0.351
		Extravert Structured	0.149	0.341
		Introvert Unstructured	-0.292	0.371
	Introvert Unstructured	Extravert Unstructured	1,303[*]	0.355
		Extravert Structured	0.442	0.345
		Introvert Structured	0.292	0.371
General Population	Extravert Unstructured	Extravert Structured	0.400	0.481
		Introvert Structured	0.167	0.429
		Introvert Unstructured	0.467	0.481
	Extravert Structured	Extravert Unstructured	-0.400	0.481
		Introvert Structured	-0.233	0.453
		Introvert Unstructured	0.067	0.503
	Introvert Structured	Extravert Unstructured	-0.167	0.429
		Extravert Structured	0.233	0.453
		Introvert Unstructured	0.300	0.453
	Introvert Unstructured	Extravert Unstructure	-0.467	0.481
		Extravert Structured	-0.067	0.503
		Introvert Structured	-0.300	0.453

* $p < .001$

ID number: **0986943**

ID number: **0915219**

Preliminary Master Thesis Report

Unconscious Bias Against Introverts in the Recruitment and Selection Process

Hand-in date:

16.01.2017

Campus:

BI Oslo

Examination code and name:

GRA 19502 Master Thesis

Programme:

Master of Science in Leadership and Organizational Psychology

Supervisor:
Ole I. Iversen

Content

Abstract

This preliminary report will focus on presenting the subject of our master thesis, in which we will attempt to uncover unconscious biases against introverts in the recruitment and selection process, and more specifically in the employment interview. To our knowledge, this have not been studied before, as research regarding unconscious biases has be mostly restricted to visible characteristics.

The report will start with a general introduction to the topic of unconscious biases in the recruitment and selection process, followed by a brief description of the importance of establishing and following valid and reliable procedures during this process. The report will also highlight some of the differences between extroverts and introverts, followed by a description of what Cain (2012) termed the *Extrovert Ideal*. By reviewing existing literature, we will try to provide some explanations to why extraversion is the cultural ideal, and why this personality type appears superior to the a more introvert personality in many occupations. As our thesis focuses on unconscious biases that may arise in the employment interview, a thorough description of interview style and techniques will be provided, along with a discussion of structured versus unstructured interviews, potential sources of unconscious biases, and how adding structure may be helpful in reducing these biases.

After the theoretical foundation, has been established, the research question and hypotheses will be presented, followed by the method for the thesis progression and data collection will be outlined, and described to the extent that it has been possible for us to establish at this point. Our proposed method draws on previous research on bias in interviews, in which similar methods were used.

The thesis will hopefully fill a gap in the literature that appears to be missing and called for.

Introduction

Unconscious bias is a popular topic, one that has gained extensive research in the field of organisational psychology, especially when it comes to recruitment and selection processes. However, it proves rather consistent that the research in this area has been somewhat restricted to the more visible characteristics (e.g., gender, age, ethnicity, handicap, race, appearance, etc.), and how these characteristics unconsciously – or consciously – influence whether or not a person in considered a strong, preferential or suitable candidate for a specific job.

But what about the invisible characteristics? What about personality? As Huffcutt, Culbertson and Weyhrauch (2011) argue, there might be more complex "cause-effect chains" that may cause the applicants to not be capable of presenting a true picture of themselves or their qualifications. This issue has received insufficient attention in the literature (Huffcutt et al., 2011). It appears to be a general perception that an extroverted personality is better suited for a number of different job positions, and especially for managerial positions (Cain, 2012); for instance, in the American society and workplace, extraverts are often perceived as superior to introverts (Condon, 2015). A possible reason for a misperception in hiring decisions could be traced back to the interview situation; how the applicant presents himself or herself, and the interview style (i.e. structured or unstructured) or techniques used, which itself is arguably better suited for extraverted personalities. Extraverts tend to perform better in job interviews as they do not need as much time to think before they answer questions, and also, they tend to make better first impressions; while introverts on the other hand might come off as more shy and reticent, and need more time for reflection before answering questions (Cain, 2012). Unconscious biases may cause the recruitment personnel to hire the candidate who excels in selling him or herself, rather than the slightly more reclusive introvert who perhaps could in fact end up doing a better job (Cain, 2012). Moreover, research has shown that people who are talkative, and fast talkers (typical traits of extraversion), are rated as more competent, more interesting, smarter, more likable, and more desirable as friends, opposed to slow or more quiet and reserved talkers (Condon, 2015; Cain, 2013).

Recruitment and Selection

The recruitment process is the overall process of hiring and attracting the right

people to an organisation, or more specifically, it is "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, 2014a, p. 134). Selection, a branch in the recruitment process, is "the process of choosing from a group of applicants the individual best suited for a particular position and the organization" (Mondy & Mondy, 2014b, p. 158).

Increased globalized competition among companies, where all the companies have approximately the same technology, the people are what makes the real difference in order to gain competitive advantage (Mondy & Mondy, 2014b). Organisations rely upon the competence of its employees to reach their organisational goals, thus bad hiring decisions can be detrimental to their success (Mondy & Mondy, 2014b). Therefore, it is important that the company are ensuring that they employ valid and reliable methods when selecting new personnel. The predictive validity of these methods is the most important facet in "predicting future job performance, job-related learning […], and other criteria" (Schmidt & Hunter, 1998, p. 262) when assessing job applicants. Some selection procedures are shown to have greater predictive validity than others, and the method that is chosen will have proportional impact on the utility of the hiring decision, i.e., its "practical economic value" (Schmidt & Hunter, 1998, p. 262).

Job Analysis

The job analysis process is a vital part in the recruitment process, and refers to the process of "obtaining information about jobs" (Fisher, Schoenfeld, & Shaw, 2003); moreover, it also includes defining "each job in terms of the behaviours necessary to perform it" (Cascio, 1991, p. 188, as cited in Voskuijl, 2005, p. 27). The job analysis consists of two main elements; job descriptions and job specifications. *Job descriptions* contains written narratives of the job activities, information about working conditions and job context, and whether the job requires use of specific equipment (Fisher et al., 2003; Voskuijl, 2005). *Job specifications* are information about skills, knowledge, abilities and other characteristics (KSA's) needed to perform the job (Fisher et al., 2003; Voskuijl, 2005). Although the utility and validity of the job analysis has been questioned due to the changing nature of jobs in modern organisations, it remains to be a powerful tool for gathering information about a job, and determining the necessary

qualifications needed to perform the job in a satisfactorily manner, as well as ensuring that the most qualified person gets hired (Fisher et al., 2003). Organisations must also show that there is a clear link between the duties required of the employee and the KSA's that are evaluated in the selection process, to ensure that discrimination does not take place in the hiring decision.

Most definitions of job analysis focus on this "type of work-related information" (Voskuijl, 2005); however, McCormick, Jeanneret, and Mecham (1972, as cited in Voskuijl, 2005) suggest that there are other types of information that must be considered when performing a job analysis, e.g., how the data is collected and the sources of information. Moreover, according to Fisher et al. (2003), the job analysis consists of four phases; determining the scope of the analysis, choosing the methods for the analysis, collecting the data and performing the analysis, and assessing the methods of the analysis. For the purpose of this thesis, we will focus on the method for data collection and sources of information.

Method for Data Collection: In order to find information about a job, one can employ several methods; e.g., questionnaires, interviews with current employees, observation of incumbents, diaries, or documentation of job activities (Voskuijl, 2005).

Sources of Information: Important sources of job information are traditionally the current job holders, supervisors, and professional job analysts; however, due the more changing nature of jobs, the range of these information agents have been broadened (Voskuijl, 2005). Video and other electronic devices can also be employed in other to find information about the content of the job in question (Voskuijl, 2005).

Extroversion and Introversion

Perhaps the personality trait that defines us the most is the extroversion-introversion personality dimension, and according to Cain (2012), it defines us in the same way as we define ourselves as man and women and it is even part of our DNA, suggesting that there is a biological component to this personality trait. This dimension of personality is also to be found in the animal kingdom, from fruit flies to rhesus monkeys, and is manifested in animals' survival techniques and behavior (Cain, 2012).

Carl Jung 1961 (as cited in Condon 2013, p. 17) defined extroverts as a

person with "an outgoing, candid, and accommodating nature that adapts easily to a given situation, quickly forms attachments, and setting aside any possible misgivings, often ventures forth with careless confidence into an unknown situation". On the other hand, he referred to introverts as "a hesitant, reflective, retiring nature that keeps to itself, shrinks from objects, is always slightly on the defensive, and prefers to hide behind mistrustful scrutiny" (Jung, 1961, as cited in Condon, 2013, p. 17). Eysenck (1967, 1981, as cited in Matthews, Deary, & Whiteman, 2009) linked extraversion and introversion to level of cortical arousal. He suggested that extroverts were chronically *under-aroused* and thus seeking stimulation in order to stay within the optimal state of cortical arousal. On the other hand, he believed that introverts were chronically *over-aroused* and thereby seeking low stimulation environments in order lower their state of cortical arousal. In line with Eysenck's theory of cortical arousal, Geen (1984) found that in a paired associations test, introverts preferred significantly less noise stimulation than did extroverts. Moreover, when introverts were given a stimulation level preferred by extroverts, it reduced their performance on the association test. However, when extroverts and introverts had the opportunity to choose their own preference for noise stimulation, there were no difference in arousal (as measured by heart rate) or performance on the paired associations test.

Although research has shown that due to differences in necessary level of outside stimulation to function well, extraverts and introverts work differently (Cain, 2012), this does not mean that one personality type is superior to the other. For instance, extraverts tend to make rapid decisions, solve problems more quickly, finish work assignments faster and be more comfortable with multitasking; however, this may also cause them to sacrifice accuracy for speed, take greater risks and be more likely to give up on a problem if it seems too difficult or frustrating (Condon, 2015; Cain, 2012). Introverts on the other hand, usually prefer to work on one task at a time rather than multiple tasks, and work more thoroughly and deliberately (Cain, 2012), making them more likely to work more accurately and think before acting, as well as more persistent to solve problems, thus giving up less easily (Matthews et al., 2003, as cited in Cain, 2012; Condon, 2015).

The Extrovert Ideal

According to Cain (2012) there is a cultural ideal to be extroverted. She refers to

this as the *Extrovert Ideal*, which can be explained as "the omnipresent belief that the ideal self is gregarious, alpha, and comfortable in the spotlight" (Cain, 2012, p. 4). Moreover, the ideal to be extroverted is well documented in research where more talkative people are considered to be more attractive, more interesting, smarter, and more appealing as friends (Cain, 2012). Cain (2012, p. 4) further describes the Extrovert Ideal in the following way:

> Introversion – along with its cousins sensitivity, seriousness, and shyness – is now a second-class personality trait, somewhere between a disappointment and a pathology. Introverts living under the Extrovert Ideal are like women in a man's world, discounted because of a trait that goes to the core of who they are. Extroversion is an enormously appealing personality style, but we've turned it into an oppressive standard to which most of us feel we must conform

This bias against introverts may create a society in which their talent is wasted. The extraverted ideal is also evident in the way the society emphasize team- and group work in schools and in the workplace. In schools for instance, there is an increase in the amount of work done in groups, by means of preparing children for work life (Cain, 2012). In the workplace people are met with open plan offices where constant interaction and teamwork is ever-present. However, research show that solitude is a greater source to creativity than teamwork, and innovation and expertise is created by spending a great amount of time in deep thinking and "deliberate practice", which is also dependent upon the individual's motivation to spend time in solitude to exercise and improve their performance (Cain, 2012; Ericsson, Krampe, & Tesch-Römer, 1993).

Andersen and Klatzky (1987) found that people associate different social stereotypes with being either introverted or extroverted. They suggest that "trait defined categories (such as *extravert* and *introvert*) are associated with large numbers of prototypical attributes that can lead to biases and overgeneralizations about individuals who are categorized in these terms" (Andersen & Klatzky, 1987, p. 236). In their study, they found that the personality traits extrovert and introvert were associated with behavioural, physical and demographic characteristics, with similar association structures; however, they still differed in the type of

associations. On the one hand, being an extrovert was associated with positive adjectives such as being outgoing, self-confident, physically strong, knowledgeable, and well-dressed. On the other hand, being an introvert was associated with more negatively loaded adjectives such as being shy, insecure, and withdrawn. However, as Cain (2012) explains, introversion is not the same as shyness. She defines shyness as the fear of social humiliation and disapproval, which is an inherently painful state of being; whereas introversion is a preference for less stimulating environments, something that is not painful. Andersen and Klatzky (1987) argued that social stereotypes are more "associatively rich" than trait-based categories, meaning that the social stereotype of being introverted are given associations that are not necessarily related to the trait-based definition, i.e., "the layperson assigns other individuals to social categories by means of implicit theories of personality and uses these categories to predict potential behaviors, emotional reactions, personality attributes, attitudes, and values" (Andersen & Klatzky, 1987, p. 235). Although this study did not test for a direct effect between social stereotypes and trait-defined categories, it may provide some insight into how the introverted bias is reinforced by implicit theories of personality.

This thesis focuses on bias against introverts in recruitment-selection process, specifically in terms of the employment interview. It is therefore important to understand whether the personality dimension extraversion-introversion is valid predictor of job performance across all types of jobs. Conscientiousness has been shown to be the most valid predictor of job performance across all occupations (Barrick, Mount, & Judge, 2001; Salgado, Anderson, & Tauriz, 2015). Likewise, emotional stability has been found to be a valid predictor of job performance across occupations; however, not to the same extent as conscientiousness (Barrick et al., 2001). The remaining three personality factors (openness, agreeableness, and extraversion) are not found to be valid predictors of job performance across occupations. Extraversion is only a valid predictor for certain jobs where interaction with other people play a large role (Barrick & Mount, 1991; Barrick et al., 2001; Salgado et al., 2015). In sum, extraversion should not be a significant factor in hiring decisions where there is no specific criteria or requirement that "being sociable, gregarious, assertive, energetic and ambitious is likely to contribute to success on the job" (Barrick et

al., 2001, p. 11).

The Employment Interview

One of the most widely used methods in the recruitment and selection process is the job interview, also referred to as the *employment interview*, and its central position as a popular recruitment and selection method has shown to be stable for the past hundred years (Levashina, Hartwell, Morgeson, & Campion, 2014; Macan, 2009). Compared to alternative instruments, e.g., personality assessments or cognitive tests, employment interviews provide a more participative and authoritative role to managers in which they more easily can measure and evaluate an applicant's potential as a future employee in the company (Bragger, Kutcher, Morgan, & Firth, 2002; Kutcher & Bragger, 2004). Likewise, the interview offers applicants the opportunity to present themselves to a business representative, and more easily share their personality and strengths.

The employment interview often serves as the initial step in the recruitment process, and in many instances, it may also be the only method used to evaluate and decide between applicants for employment. Generally speaking, the employment interview can be described as a "reciprocal gathering of information between strangers" (Kutcher & Bragger, 2004, p. 1994), in which the interviewer(s) are in possession of an incomplete set of data about the various job applicants, and then use the interview to fill in the gaps and create a holistic picture of the applicant. Traditionally, the employment interview has been a face-to-face interaction between the interviewer and the applicant; however, due to technological developments in recent years, the interview is no longer restricted to a face-to-face interaction, but can also take the form of e.g., a telephone interview or video chat (Levashina et al., 2014). Levashina et al. (2014) therefore propose to define the employment interview as "a personally interactive process of one or more people asking questions orally to another person and evaluating the answers for the purpose of determining the qualifications of that person in order to make employment decisions" (p. 243).

The employment interview may vary greatly in style, structure and techniques. According to research and literature related to employment interviews, two general strategies can be distinguished: the *structured interview*

and the *unstructured interview* (e.g., Dipboye, 1994; Schmidt & Hunter, 1998; Kutcher & Bragger, 2004; Bragger et al., 2002; Levashina et al., 2014; Macan, 2009; McDaniel et al., 1994; Kohn & Dipboye, 1998; Campion, Palmer & Campion, 1997), where the latter appears to dominate human resource practises. An important side-note here is that there are various means of applying structure to an interview, and different interview strategies might vary in degree of structure and techniques used; therefore, one might argue that these approaches could be viewed as falling along a continuum rather than two distinct types (Bragger et al., 2002).

Structured Interview

The structured interview approach is a formal and research guided process which uses scientific methods to ensure accuracy checks at every step of the process, making it a rational procedure (Dipboye, 1994). According to Motowidlo et al. (1992, p. 571) structure refers to the "amount of discretion that an interviewer is granted in decision making"; whereas Campion, Palmer and Campion (1997, p. 656) define structure as "any enhancement of the interview that is intended to increase psychometric properties by increasing standardization or otherwise assisting the interviewers in determining what questions to ask or how to evaluate results". What differentiates a structured interview from an unstructured one is the importance of questions and procedures grounded in formal job analyses, standardized questioning of applicants, availability of ancillary data (e.g., test scores, school transcripts, or biographical data), and consistent evaluation systems and rating scales (Bragger et al., 2002; Dipboye, 1994; Campion et al., 1997; Kutcher & Bragger, 2004; Grant, 2013). A more comprehensive, and perhaps most well-known typology of interview structure, is the one proposed by Campion et al. (1997), which distinguish between two categories of structure, each containing several components (15 in total). The first category concerns the *content* of the interview, and includes the following seven components: (1) job analysis; (2) same questions; (3) limit prompting, or elaboration on questions; (4) better questions; (5) longer interview, or larger number of questions; (6) control ancillary information; and (7) no questions from applicant until after the interview. The second category includes eight components related to the interviewer's *evaluation*: (8) rate each question/answer; (9) anchored rating scales; (10) note-

taking; (11) multiple interviewers; (12) same interviewer(s); (13) no discussion between interviews; (14) interviewer training; and finally, (15) statistical, rather than clinical, prediction (Campion et al., 1997; Levashina et al., 2014; Kutcher & Bragger, 2004). Although the components included in this typology is considered important, the extent to which each component add to the reliability and validity of the interview have been a topic for discussion (Levashina et al., 2014). The degree of structure added may also vary, and an interview can be either highly structured, or semi-structured (Dipboye, 1994). Furthermore, the number of components included in the procedure may also affect the degree of structure (Bragger et al., 2002).

The use of structured interviews has increased during recent years and employers are continuously being encouraged to structure and standardize their interview process (Kutcher & Bragger, 2004). However, the frequency of its use is still overshadowed by unstructured interview methods which are frequently more used in the initial selection, placement, and promotion of employees (Dipboye, 1994). One reason for this might be that structured interviews are costlier to construct and use, and thus demanding greater human resources than unstructured interviews (Schmidt & Hunter, 1998). Still, considering how adding structure to the interview has shown to improve its psychometrics properties, making it much more reliable and valid than unstructured interviews (Kutcher & Bragger, 2004; Levashina et al., 2014), one would assume that the costs would be worthwhile. Extensive research findings emphasize how adding structure to the interview increases the predictive validity, interrater reliability, and improve the validity and reliability of interviewer judgments, as well as reduce inconsistency across interviewers (Bragger et al., 2002; Kutcher & Bragger, 2004; Dipboye, 1994; Levashina et al., 2014). This in turn may lead to optimal person-job fit (Dipboye, 1994), decreased human resources expenses, greater probability of successful hiring, and greater organisational efficiency (Kutcher & Bragger, 2004). Standardizing and structuring the interview procedure by asking all applicants the same questions in the same order, and evaluate their responses using mathematical scoring systems and behavioural guidelines, ensures a stricter adherence to job- related requirements and reduce potential variability and subjectivity across judges (Bragger et al., 2002; Kutcher & Bragger, 2004;

Dipboye, 1994; Grant, 2013). Moreover, studies have shown that structured interviews may be a possible avenue for reducing the biasing factors (e.g., biases in information gathering, judgment, and decision making) in the employment interview (e.g., Dipboye, 1994; Levashina et al., 2014; Macan, 2009). For example, interviewees are less likely to employ impression management techniques related to personality traits (Van Iddekinge et al., 2007). In addition, Macan (2009, p. 204) argues that "interviewer judgments based on structured interviews are more predictive of job performance than those from unstructured interviews", reducing potential traps such as confirmatory bias, similarity bias, or halo effects (e.g., Bragger et al., 2002; Grant, 2013).

Unstructured Interview

Contrary to the structured interview, the unstructured interview has no standardized format, nor does it have a specific prearranged set of questions to ask applicants, or follows a standard procedure for how to evaluate and measure applicants' responses to the questions (Schmidt & Hunter, 1998). In fact, it may be experienced as a more free, informal, and open-ended conversation, in which questions may be spontaneously generated in the natural flow of interaction (Burgess, 1984; Patton, 1990). The interviewer may ask different types and numbers of questions to each applicant, depending on the different directions the interview may take, and rather than scoring each answer and base their final evaluation on careful analysis of each candidate, the interviewer may base his or her decision on an overall evaluation of impressions and judgments of the applicant (Schmidt & Hunter, 1998; Dipboye, 1994). Since the unstructured interview is an informal and flexible process, there is no official and universal guidelines for how it should be conducted. This provides the interviewer with a unique position to conduct the interview in an idiosyncratic way (Levashina et al., 2014), and explore the attributes and personality of the applicant beyond KSA's, which might be one of the reasons why unstructured interviews are so frequently used (Dipboye, 1994). There are, however, several potential pitfalls to such a procedure, e.g., the unstructured interview being dominated by the interviewer's attempts to achieve personal satisfaction, or acquire and maintain power. The interviewer's own personal judgments about the necessary requirements, and employee-job fit may also bias their judgment. For instance, what may overshadow

the interviewer's evaluation of the candidate is what they have talked about and done in the interview, instead of the candidate's actual qualifications and skills (Dipboye, 1994), thus making the content and evaluation process "more reflective of the interviewer's implicit theories of the job requirements than the actual job requirements" (Levashina et al., 2014, p. 252).

Validity and Reliability of the Employment Interview

Studies of the validity and reliability of the employment interview have revealed much higher validities (and interrater reliability) for structured interviews than for unstructured interviews (e.g., Dipboye, 1994; Schmidt & Hunter, 1998; Hunter & Hunter, 1984; Levashina et al., 2014), although the estimates might vary slightly. For instance, a study performed by Conway, Jako, and Goodman (1995) found the validity estimate of the structured interview to be .67, and, furthermore, that the interrater reliability of structured interview was greatly improved over the unstructured interview. Similarly, Schmidt and Hunter (1998) found the average validity of the structured interview to be .51 compared to the unstructured interview which was as low as .38 (and probably even lower if the unstructured interview is conducted in a careless manner). When used in addition to a GMA test, they found the incremental validity of structured interview to be .12, contrary to the unstructured interview which was only .04 (Schmidt & Hunter, 1998). "Clearly, the combination of a structured interview and a GMA test is an attractive hiring procedure. It achieves 63% of the maximum possible practical value (utility), and does so at reasonable cost" (Schmidt & Hunter, 1998, p. 267). Furthermore, they found that the structured interview explains 24% of the variance in job performance, whereas unstructured interview explains only 8% (Schmidt & Hunter, 1984; Grant, 2013). Dipboye (1994) also found differences in the validity of the two types of interview structure, but furthermore that the validity also depended on whether the interviews were conducted as individual or board interviews. Structured individual interviews had a mean corrected validity of .63, while structured board interview had a mean corrected validity of .60. The unstructured individual interview however, had a mean corrected validity of .20, whereas the mean corrected validity of the unstructured board interview was .37 (Dipboye, 1994). Despite differences in validity estimates, research clearly shows that adding structure to the interview increases its validity.

Unconscious Bias

Unconscious bias refers to a mental shortcut rooted in pre-established filters i.e., experiences, perceptions, interpretations, preferences, or assumptions developed throughout our lives, which operates automatically outside our conscious awareness or control (Kahneman, 2012). Although these shortcuts might be quite valuable and efficient in that they allow for our brain to recognize and act on patterns, rather than spend processing capacity on interacting with everything all the time (Kahneman, 2012; Nichols, 2013), they can also pose challenges. When encountering unfamiliar situations or people (e.g. the interview situation), our brain tend to trigger these pre-established filters to unintentionally interfere with our judgments and decision making (e.g., the similarity heuristics, representativeness heuristic, confirmation bias, or the halo effect), affecting the way we interact and perceive others, which can potentially lead to biased outcomes (Kahneman, 2012; Nichols, 2013; Fiske & Taylor, 1991, as cited in Condon, 2015; Bragger et al., 2002). In the recruitment and selection process, and especially the interview situation, there are numerous opportunities for the impression of an applicant to be influenced and shaped by verbal and nonverbal behaviour and cues, which can lead the interviewer(s) to draw biased conclusions and decisions in favour of certain types of groups or people, and reject others that might be just as qualified (Condon, 2015; Bragger et al., 2002; Kutcher & Bragger, 2004).

Potential Sources of Unconscious Biases in the Interview Process

Pre-Interview Personality Assessments
Pre-interview personality assessments are often administered before interviews, especially in large corporations (Cain, 2012; Weiss, 2007). However, it is inherent to human nature to make initial judgements about other people (e.g., Kutcher & Bragger, 2004), and by having access to this information beforehand may distort the outcome of the interview.

Extroverts are more often favoured in terms of leadership and being an extravert is associated with more positive connotations than being introverted (Andersen & Klatzky, 1987; Grant, Gino, & Hofmann, 2010). However, research has found that introverts can perform just as good in managerial roles and even in some cases deliver better results (Cain, 2012: Grant et al., 2010). While extroverted

leaders are better at motivating passive workers, the introverted leader is better at motivating more proactive workers, and help to develop their ideas (Grant et al., 2010).

In a literature review by Dipboye (1982), he found that pre-interview information (such as ancillary data) about a candidate influence the way the interview is conducted, interviewer expectations of the applicant, and interviewer behaviour. In other words, pre-interview evaluations of an applicant will influence the interviewer's perception of the candidate, and in the end, this initial impression will determine the outcome of the interview (Dipboye, 1982). This is coined the *self-fulfilling prophecy theory* and is a potential source of bias in the recruitment process. Dipboye (1982) argued that if the interviewer considered pre-interview evaluation to be positive, with all other variables held constant, the candidate would be assessed more favourably in the final decision. In other words, if the interviewer holds negative associations to introversion, then this can influence how the interview is conducted, and how the applicant is judged during the interview, and thus the interviewer may favour more extroverted applicants.

In another study by Dipboye, Fontenelle, and Gamer (1984), they showed that pre-interview information about a candidate produced more variability in the conduction of employment interviews and lowered the reliability of the judgements of the applicant. They argued that pre-interview information can lead to judgements about an applicant that the interviewer commits to and seeks to confirm throughout the interview by asking leading question, and paying attention to confirming answers, in order to confirm his or her initial beliefs about the applicant. In this way, pre-interview information may lead to stronger bias in hiring decisions.

Low Degree of Interview Structure

Kutcher and Bragger (2004) argue that "social psychology teaches that individuals attribute characteristics to those about whom they are not given a complete set of information" (p. 2017). Hence, employment interviews which are basically a reciprocal information gathering sessions is thus particularly prone to unconscious biases that can lower the quality of decisions, especially when there is a low degree of structure in the interview (Kutcher & Bragger, 2004; Bragger et al., 2002; Dipboye, 1994; Condon, 2015). Researchers have argued that unstructured

interviews are much more effective than structured ones when it comes to both expressing important values of the organisation, and exploring different attributes and behaviours of the applicant that might be important to the culture and context of the organisation (e.g., Dipboye, 1994). Furthermore, employers might favour the unstructured format over the structured ones because it affords them the flexibility and freedom to conduct the interview as they see fit. However, despite it being a popular method, the unstructured interview has been criticized for its low validity and reliability compared to more structured interviews (e.g., Levashina et al., 2014; Schmidt & Hunter, 1998; Dipboye, 1994; Hunter & Hunter, 1984; Grant, 2013). It is also more prone and susceptible to different biases, e.g., gender, race, disabilities, and appearances (Levashina et al., 2014; Bragger et al., 2002; Macan, 2009; Dipboye, 1994).

It is not unusual for managers and interviewers to rely on their instincts when judging applicants, and thus "test" whether an applicant fit their conception of an ideal applicant. Consequently, a lot of interviews are unplanned and conducted in an unstructured, inconsistent and informal manner (Kutcher & Bragger, 2004) because interviewers believe they instinctively will identify an ideal, qualified applicant that matches the job requirements. Lack of, or low degree of structure, can lead interviewers to make invalid judgments, or as Dipboye (1994, p. 83) argue "When unstructured procedures force a reliance on personal beliefs about job requirements, the likely result is a deterioration in the validity and reliability of interviewer judgements". According to Springbett (1954, as cited in Dipboye, 1994), it only takes interviewers four minutes to decide on applicants. Considering how people tend to search for information that will support or confirm their initial beliefs (Dipboye, 1994), one could thus assume that unless there is some degree of structure in the interview, interviewers will be likely to steer the session in such a direction as to gather information that will confirm their initial impression of the applicant (Fiske & Neuberg, 2010, as cited in Dipboye, 1994), which can prevent them from realizing and evaluating the applicant's actual potential (Grant, 2013). Adding structure to the interview, and develop predeterminant questions based on job analyses has been shown to improve the process, and lower the inclination of unconscious biases (Kutcher & Bragger, 2004; Bragger et al., 2002). We therefore suggest that a higher degree of

structure in employment interviews may reduce the variability that is produced by the interviewer's initial perception of an applicant.

Applicant Impression Management

Impression management (IM) refers to an "individual's conscious or unconscious attempt to control the images they project in social interactions" (Van Iddekinge et al., 2007, p. 753). IM behaviours such as verbal statements, self-promotion, non- verbal behaviours, and modifications of appearance, have been shown to be used by applicants during interviews in order to manage and create positive impressions of themselves, and the way such IM behaviors can influence recruiter perception in the interview situation has received increasing attention in recent years (Van Iddekinge et al., 2007; Kristof-Brown, Barrick, & Franke, 2002). In addition to the many non-verbal IM behaviours, research usually distinguishes between two categories of verbal IM behaviours: *assertive* behaviors (i.e., behaviors used to actively depict favourable impressions of oneself), and *defensive* behaviors (i.e. behaviors used to defend or repair one's image) (Van Iddekinge et al., 2007). Assertive IM behaviors can be either *self-focused*, defined as "maintaining attention on the candidate and allowing him or her to focus the direction of the conversation on areas which allow him or her to excel" (Kacmar, Delery, &, Ferris, 1992, p. 1253), and includes e.g., self-promotion (Van Iddekinge et al., 2007); or *other- focused* with the intention to make another individual, e.g., the interviewer, feel good about him or herself, or evoke interpersonal attraction by the use of ingratiatory strategies (Kacmar et al., 1992; Kristof-Brown et al., 2002).

Given the importance of the selection interview on applicant's outcome (job offer vs. no job offer), it is not hard to understand why individuals may turn to such IM tactics to come off as effective and likable interviewees; however, IM might clutter the interviewer's perception of the candidate as personal liking for the applicant (which might be caused by IM behaviours), can affect the interviewer and lead to biased judgments (Dipboye, 1994). For instance, Dipboye (1994) argue that applicants who show positive verbal and non-verbal behaviour, e.g., good eye-contact, smiling, voice modulation, nodding, bodily gestures, vocal expressiveness, and so forth (traits which incidentally often are associated with

extraversion), tended to be viewed as more qualified; and furthermore, that when interviewers were impressed with the applicant, they appeared less likely to ask questions.

In relation to personality, a study by Kristof-Brown and colleagues (2002) found evidence suggesting that extrovert applicants tend to engage more in IM behaviours, opposed to their introverted counterparts, and this was especially the case for extraversion and self-promotion ($\beta = .47$, $p < .05$). A possible reason for this may be that extraverts tend to be more comfortable with social interaction (Kristof-Brown et al., 2002). However, adding structure to the interview may assist in reducing some of these IM behaviors and tactics. For instance, research shows that the use of other-focused IM tactics is negatively related to structured interview (Stevens & Kristof, 1995), which can be explained by "the limited amount of time which a structured vs. unstructured interview provides for applicants to take control of the interview" (Kristof-Brown et al., 2002, p. 30).

Thesis Objectives, Research Question, and Hypotheses

To our knowledge, there is extremely limited (if any) research addressing the current topic of the potential unconscious bias that may exist against introverted job applicants, and to what extent personality type (extrovert - introvert) may unconsciously affect the recruitment and selection process. Kutcher and Bragger (2004) argue that whereas previous research on structured interviews have emphasized its benefits on predictive validity, interrater reliability, and fairness in recruitment processes, none have focused on its ability to reduce biases related to nonverbal cues and characteristics, such as personality traits related to introversion and extraversion. Similarly, Levashina et al. (2014) suggests that future research exploring how interview structure and visibility of personality traits may enhance or impede interview judgements of applicant personality, is recommended. Clearly, there is a demand for future research related to interview structure and personality. We would therefore like to take the opportunity to focus our master thesis on investigating this further, and examine whether there exists an unconscious bias against introverts in the recruitment and selection process, and whether structured interviews can reduce this bias.

We believe that our research will serve as an important contribution as to whether biases against introverts actually exist, and how a structured versus

unstructured interview may affect the outcome and potential unconscious biases. We hope that this type of research can make recruiters (and the general population) more aware of the potential prejudice and challenges that may follow being introverted in a labor market that tend to favour extroverts (Cain, 2012).

Research Question and Hypotheses

Research Question: To which extent is personality traits related to extraversion versus introversion associated with an ideal applicant? To which extent can structured interviews reduce bias against introverts in the recruitment and selection process?

Hypothesis 1. Traits related to extraversion will be rated more preferentially.

Hypothesis 2. Participants will recommend hiring an extraverted applicant more frequently than an introverted applicant.

Hypothesis 3. There will be an overall difference in participant's ratings of applicants between structured and unstructured interview conditions.

Hypothesis 4. There will be an overall difference of applicant ratings between the two participant groups.

Hypothesis 5. There will be more consistency among raters to recommend hiring an extraverted applicant when the interview is unstructured.

Hypothesis 6. The structured interview should reduce the effects of subjective biases, and there will be a significant interaction between applicant personality style and degree of interview structure. Specifically, there will be less of a bias against the introverted applicant when the interview is structured than when it is unstructured.

Plan for Data Collection and Thesis Progression

Method and Experimental Design

A job description will be developed based on a formal job analysis. The job analysis will ensure that the job description is accurate and valid, as well as ensure that the job description is neutral in terms of job-related personality requirements. Data

for the job analysis will be collected from online resources by means of Internet career databases (e.g. O*Net), exciting job descriptions, previous job ads, etc. We will also attempt to interview people currently employed with this position (Fisher et al., 2003; Voskuijl, 2005). The analysis will contain main job activities, job context, equipment, working conditions, job specifications (KSA's), and recommended personal characteristics (Iversen, 2016).

Using a quantitative study method, data will be collected using a survey comprised of two parts which will be measured individually. The first part of the study will consist of an association test in the form of a questionnaire in which the participants are presented with a short job description followed by several adjectives describing features from the Five-Factor model (Andersen & Klatzky, 1987). The adjectives will be rated on a Likert scale (1-7) as to which extent they reflect an ideal applicant for the position in question. In order to control that the intention of the study is not revealed, we include adjectives from all five personality factors, but we will only measure the adjectives for extroversion-introversion. This will reveal potential biases.

In the second part of the study the participants will be presented with a clip of a short, simulated employment interview. This consist of two experimental conditions (2x2 design), with the following independent variables: Interview Structure: *structured/unstructured*; Applicant Personality: *extrovert/ introvert*. The dependent variable (i.e. what we will be measuring), will be the preferential applicant personality for the position in question. The study will be programmed as to ensure randomization, and that each participant only will be shown one video, i.e., extrovert/structured; extrovert/unstructured; introvert/structured; or introvert/unstructured. Four different manuscripts will be developed with guidance from our supervisor. Control measures will be employed to ensure that the information provided by the applicant is the same in both the structured and unstructured interview. Traits related to extraversion-introversion will be restricted to non-verbal cues and characteristics, and questions directly aimed at this factor will be avoided. To control for any other influencing factors, the same actor/actress will be acting all scenarios. Following the video interview, participants will rate the hireability of the applicant by answering a short questionnaire.

Participants

Participants will be the general population (recruited through social media), and professional recruiters from different companies. We will aim to recruit approximately 150-200 participants per participant-group (i.e., general population and professional recruiters).

Apparatus and Materials

An online survey will be employed to distribute the questionnaire and recruit participants more efficiently. As for the video-interviews, we will use the Olympus PEN E-PL7 with the M. ZUIKO DIGITAL 14-42mm 1:3.5-5.6 II R lens for recording.

Plan for Thesis Progression

In the initial stage of the process, a job analysis will be conducted on which a job description will be based. Next, the questionnaires will be developed along with the interview manuscripts. At the same time, we will also find an actor and get approval from participating companies to be a part of the study. We aim to finalize phase 1 medio March.

The next phase will be filming the video-interview clips, distribute the study to companies and general population, and collect data. We assume that phase 2 will be finished at the beginning of May. This gives us about three months to analyze the findings and write up the remaining of the thesis.

References

Andersen, S. M. & Klatzky, R. L. (1987). Traits and Social Stereotypes: Levels of Categorization in Person Perception. *Journal of Personality and Social Psychology*, *53*(2), 235-246.

Barrick, M. R., & Mount, M. K. (1991). The Big Five Personality Dimensions and Job Performance: A Meta-Analysis. *Personnel Psychology*, *44*(1), 1-26.

Barrick, M. R., Mount, M. K., & Judge, T. A. (2001). Personality and Performance at the Beginning of the New Millennium: What Do We Know and Where Do We Go Next? *International Journal of Selection and Assessment*, *9*(1-2), 9-30.

Bragger, J. D., Kutcher, E., Morgan, J., & Firth, P. (2002). The Effects of the Structured Interview on Reducing Biases Against Pregnant Job Applicants. *Sex Roles, 46*, pp. 215-226.

Burgess, R. G. (1984). *In the Field: An Introduction to Field Research.* London: Unwin Hyman.

Cain, S. (2012). *Quiet: The Power of Introverts in a World That Can't Stop Talking.* London: Penguin Books.

Campion, M. A., Palmer, D. K., & Campion, J. E. (1997). A Review of Structure in the Selection Interview. *Personnel Psychology, 50*(3), pp. 655-702.

Condon, E. (2015). *The Effects of Interview Length on Gender and Personality Related Bias in Job Interview*s. Scripps Senior Theses. Paper 536.

Conway, J. M., Jako, R. A., & Goodman, D. F. (1995). A meta-analysis of the interrater and internal consistency reliability of selection interviews. *Journal of Applied Psychology, 80*, pp. 565-579.

Dipboye, R. L. (1982). Self-Fulfilling Prophecies in the Selection-Recruitment Interview. *Academy of Management Review*, *7*(4), 579-586.

Dipboye, R. L. (1994). Structured and Unstructured Selection Interviews: Beyond the Job-Fit Model. *Research in Personnel and Human Resources Management, 12*, pp. 79-123.

Dipboye, R. L., Fontenelle, G. A., & Garner, K. (1984). Effects of Previewing the Application on Interview Process and Outcomes. *Journal of Applied Psychology*, *69*(1), 118-128.

Ericsson, K. A., Krampe, R. T., & Tesch-Römer, C. (1993). The Role of Deliberate Practice in the Acquisition of Expert Performance. *Psychological Review*, *100*(3), 363-406.

Fisher, C., Schoenfeldt, L., & Shaw, J. (2003). Job Analysis: Concepts, Procedures, and Choices. Chapter 4. In *Human Resource Management* (pp. 142-177). Boston: Houghton Mifflin Company.

Geen, R. G. (1984). Preferred Stimulation Levels in Introverts and Extroverts: Effects on Arousal and Performance. *Journal of Personality and Social Psychology*, *46*(6), 1303-1312.

Grant, A. (2013, June 11th). *What's Wrong with Job Interviews. And How to Fix Them.* Retrieved January 7th, 2017, from Psychology Today: https://www.psychologytoday.com/blog/give-and-take/201306/whats-wrong-job-interviews

Grant, A. M., Gino, F. & Hofmann, D. A. (2010). The Hidden Advantages of Quiet Bosses. *Harvard Business Review*, *88*(2), p. 8.

Huffcutt, A. I., Culbertson, S. S., & Weyhrauch, W. S. (2013). Employment Interview Reliability: New meta-analytic estimates by structure and format. *International Journal of Selection and Assessment, 21*(3), pp. 264-276.

Hunter, J. E., & Hunter, R. F. (1984). Validity and Utility of Alternative Predictors of Job Performance. *Psychological Bulletin, 96*(1), pp. 72-98.

Iversen, O. I. (2016, October 17). Lecture 1: Job Analysis [PowerPoint slides]. Oslo: BI Norwegian Business School: Recruitment, Training, and Development. Retrieved from https://www.itslearning.com/ContentArea/ContentArea.aspx?LocationID=12433&LocationType=1

Kacmar, K. M., Delery, J. E., & Ferris, G. R. (1992). Differential Effectiveness of Applicant Impression Management Tactics n Employment Interview Decisions. *Journal of Applied Psychology, 22*(16), pp. 1250-1272.

Kahneman, D. (2012). *Thinking, fast and slow*. London: Penguin Books.

Kohn, L. S., & Dipboye, R. L. (1998). The Effects of Interview Structure on Recruiting Outcomes. *Journal of Applied Social Psychology, 28*(9), pp. 821-843.

Kristof-Brown, A., Barrick, M. R., & Franke, M. (2002). Applicant Impression Management: Dispositional Influences and Consequences for Recruiter Perceptions of Fit and Similarity. *Journal of Management, 28*(1), pp. 27-46.

Kutcher, E. J., & Bragger, J. D. (2004). Selection Interviews of Overweight Job Applicants: Can Structure Reduce the Bias? *Journal of Applied Psychology, 34*(10), pp. 1993-2022.

Levashina, J., Hartwell, C. J., Morgeson, F. P., & Campion, M. A. (2014). The Structured Employment Interview: Narrative and Quantitative Review of the Research Literature. *Personnel Psychology, 67*, pp. 241-293.

Macan, T. (2009). The Employment Interview: A Review of Current Studies and Directions for Future Research. *Human Resource Management Review, 19*, pp. 203-218.

Matthews, G., Deary, I. J., & Whiteman, M. C. (2009). *Personality Traits* (3rd ed.). New York, NY: Cambridge University Press.

McDaniel, M. A., Whetzel, D. L., Schmidt, F. L., & Maurer, S. D. (1994). The Validity of Employment Interviews: A Comprehensive Review and Meta-Analysis. *Journal of Applied Psychology, 79*(4), pp. 599-616.

Mondy, R. W. & Mondy, J. B. (2014a). Recruitment. Chapter 5. In Mondy, R. W. *Human Resource management* (13 ed., pp. 132-155). Pearson Education.

Mondy, R. W., & Mondy, J. B. (2014b). Selection. Chapter 6. In Mondy, R. W. *Human Resource Management* (13th ed., pp. 156-186). Pearson Education.

Motowidlo, S. J., Carter, G. W., Dunnette, M. D., Tippins, N., Werner, S., Burnett, J. R., & Vaughan, M. J. (1992). Studies of the Structured Behavioral Interview. *Journal of Applied Psychology, 77*(5), pp. 571-587.

Nichols, V. (2013). Unconscious Bias. Are You Blocking the Talent Pipe? *CPA Practice Management Forum, 9*(12), pp. 11-12.

Patton, M. Q. (2002). *Qualitative Research and Evaluation Methods.* Thousand Oaks, CA: Sage.

Salgado, J. F., Anderson, N., & Tauriz, G. (2015). The Validity of Ipsative and Quasi-Ipsative Forced-Choice Personality Inventories for Different Occupational Groups: A Comprehensive Meta-Analysis. *Journal of Occupational and Organizational Psychology*, *88*(4), 797-834.

Schmidt, F. L., & Hunter, J. E. (1998). The Validity and Utility of Selection

Methods in Personnel Psychology: Practical and Theoretical Implications of 85 Years of Research Findings. *Psychological Bulletin, 124*(2), pp. 262-274.

Stevens, C. K., & Kristof, A. L. (1995). Making the Right Impression: A Field Study of Applicant Impression Management During Job Interviews. *Journal of Applied Psychology, 80*, pp. 587-606.

Van Iddekinge, C. H., McFarland, L. A., & Raymark, P. H. (2007). Antecedents of Impression Management Use and Effectiveness in a Structured Interview†. *Journal of Management, 33*(5), pp. 752-773.

Voskuijl, O. F. (2005). Job Analysis: Current and Future Perspectives. In A. Evers, N. Anderson, & O. Voskuijl, *The Blackwell Handbook of Personnel Selection* (pp. 27-46). Malden, MA: Blackwell.

Weiss, T. (2007, February 22). Surviving the Personality Test. *Forbes*. Retrieved from http://www.forbes.com/2007/02/21/personality-tests-interviewing-leadership-careers_cx_tw_0222bizbasics.html