Why your stigma isn't hired: A dual-process framework of interview bias☆

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ABSTRACT

The job interview is one of the most widely used assessment tools in the selection process. Despite its popularity in practice, interview outcomes can be prone to bias. Although our knowledge of stigmatizing applicant characteristics that elicit subgroup differences has grown exponentially, research continuously highlights the need for a framework underlying interview bias. This paper proposes a framework for interview bias based on the dual-process theory, which is a widely applicable theoretical framework that has influenced research on social interactions, information processing, and decision making. Specifically, we investigate how stigmatizing applicant characteristics affect interviewers' information processing during the three main stages of the interview (i.e., pre-interview, interview, decision making), we discuss situational and interviewer factors as moderators, and describe the impact on interview outcomes (like interview bias). Building on the dual-process theory, we formulate key propositions, related to each of the interview stages. Finally, we discuss the implications of this framework for future interview and stigma research and for organizations' interviewing practice.

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1. Introduction

Job interviews have been an integral part of personnel selection practice over the last 100 years (Ryan & Ployhart, 2014) and it is rare, if not unthinkable, to have a selection process without an interview (Huffcutt, Culbertson, & Weyhrauch, 2013). Interviews are often the only, or ultimate, selection tool used to make hiring decisions (Levashina, Hartwell, Morgeson, & Campion, 2014). Despite its popularity (Steiner, 2012), the interview has also been criticized because of its subjective nature and proneness to biases and discrimination. Indeed, accumulated evidence of different characteristics that elicit such biases and their impact on minority or stigmatized applicants has grown exponentially. More recently, cognitive factors, such as information processing, have been identified as potential drivers of such biases (e.g., Huffcutt, Van Iddekinge, & Roth, 2011; Madera & Hebl, 2012). Researchers have thus started to examine the more implicit basis of behavior and decision making in organizational settings (e.g., Macan & Merritt, 2011; Uhlmann et al., 2012). However, a theoretical framework that describes the cognitive processes explaining how applicant characteristics influence interviewers' judgments while incorporating the social and organizational aspects of the job interview is still lacking (Macan, 2009; Macan & Merritt, 2011).

In this paper, we propose a model of interview bias to stigma based on dual-process theory, a widely accepted theoretical decision-making framework (Evans, 2008; Kahneman & Frederick, 2002). This theory is pertinent for explaining interviewers' judgments for two main reasons. First, dual processing has been increasingly used to account for behavior and decision making in social psychology (e.g., Chaiken & Trope, 1999; Deutsch & Strack, 2006) and cognitive psychology (e.g., Evans & Stanovich, 2013; Smith & DeCoster, 2000). It has been successfully applied to explain people's reactions to stigmas (e.g., Pryor, Reeder, & Landau, 1999; Pryor, Reeder, Yeadon, & Hesson-McInnis, 2004) and has been recently suggested as a potentially valuable approach for interview research (Dipboye, Macan, & Shahani-Denning, 2012). Moreover, job interviews are high-stakes contexts (for both interviewers and applicants) driven by formal rules, regulations, and legislations, two essential factors to initiate conscious and effortful rule-based behavioral control that is central to dual-process theory.

Second, dual-process theory derives from research on heuristics and biases (Tversky & Kahneman, 1974), which proposes that humans can be rational information processors, but are also fallible human beings whose decision-making processes are influenced by heuristics and biases. Interestingly, this Nobel Prize winning research originates from Daniel Kahneman's experiences and observations as an interviewer for the Israeli army (Kahneman, 2003a). Kahneman noted that despite his confidence in interview judgments, the actual validity was low. Ironically, despite that the heuristics and biases approach finds its origin in the job interview, this approach, or the closely related dual-process theory, is rarely applied as a theoretical framework underlying interview decision making and interview bias (e.g., Dipboye et al., 2012).

Taken together, a theoretical framework of interview bias based on dual-process theory has the potential to advance our understanding of how stigmatizing applicant features influence the decision-making process throughout the various stages of a job interview. The remainder of this paper is structured as follows: We first briefly review the literature on applicant stigma. Next, we describe dual-process theory and its key cognitive mechanisms. We then review the job interview literature to discuss and illustrate how cognitive processes affect interviewers' behaviors and information gathering, highlight how situational and interviewer factors can moderate such processes, and describe the impact on interview outcomes (like interview bias) in each of the successive interview stages. Finally, we discuss the implications of this framework for future interview and stigma research and for organizations' interviewing practice.

We note that, despite the job interview being a two-way process and the need to consider both the applicant and recruiter side (Dipboye et al., 2012), we chose to highlight the interviewer's perspective by investigating the way interviewers process candidate (stigma) information. In doing so, we further focus on one particular cognitive theory (i.e., dual-process theory) without having the intention to downplay the importance and relevance of other, alternative cognitive or motivation theories (like parallel distributing processing or connectionist theories), which fall outside the scope of the current paper.

2. Stigma and Interview Bias

Stigma is a term that encompasses many different stigmatizing features that can be divided into different types of stigma on a variety of dimensions (for an in-depth review of stigma see Heatherton, Kleck, Hebl, & Hull, 2003). Examples of stigma that are often subject of research in the field of interview bias are obesity (Agerström & Rooth, 2011; Bell & McLaughlin, 2006; Hebl & Kleck, 2002), physical unattractiveness (Dipboye, 2005; Hosoda, Stone-Romero, & Coats, 2003), disabilities (Hayes & Macan, 1997; Macan & Hayes, 1995), and ethnicity (Kaiser & Pratt-Hyatt, 2009; Rakic, Steffens, & Mummendey, 2011).

From the initial introduction of the term stigma, theorists have emphasized that observation of the stigma instantly triggers emotional reactions in the observer including uncertainty, discomfort, anxiety, and perceived danger (Bos, Pryor, Reeder, & Stutterheim, 2013; Crocker, Major, & Steele, 1998; Goffman, 1968; Jones et al., 1984; Major & O'Brien, 2005). Indeed, when perceiving a stigmatized individual, observers initiate physiological responses that are consistent with reactions to threat and fear (Blascovich, Mendes, Hunter, Lickel, & Kowai-Bell, 2001). This fear has an evolutionary origin as many physical stigma are perceived to be indicators of a disease or a threat (Kurzban & Leary, 2001; Park, Faulkner, & Schaller, 2003; Park, Schaller, & Crandall, 2007; Ryan, Oaten, Stevenson, & Case, 2012; Wolfe, Dunavan, & Diamond, 2007). Therefore, observation of the stigma will trigger scripts that initiate behavioral, cognitive, and affective reactions in the observer (i.e., interviewer) including avoidance, fear, disgust, and the activation of stereotypes (Amodio & Devine, 2006; Houston & Bull, 1994; Neumann & Strack, 2000; Pryor et al., 2004; Zajonc, 1980).

In order for bias to occur, the interviewer needs to be, or become, aware of the stigmatizing applicant feature. Some stigmas are concealable, and not directly observable to others (Jones & King, 2014). We discuss the dual-process model in interviewing as related to visible, non-concealable stigma in the current manuscript. Recent reviews of the interview literature have highlighted various types of visible stigmas that can influence interviewers' judgments (e.g., Dipboye & Johnson, 2013; Huffcutt, 2011; Macan, 2009; Macan & Merritt, 2011). Importantly, Pryor et al. (1999, 2004) noted that visible stigmas can be controllable or uncontrollable, and that people's negative reactions towards stigmas were stronger when the target was perceived to be responsible for the stigma. Visible uncontrollable stigmas that could play a role in the interview include gender, age, race or ethnicity, physical disability or a facial stigma (e.g., a port-wine stain). Stigma that can be perceived as controllable include pregnancy, visible signs of religion or religious beliefs, tattoos, and overweight or obesity (although this can be uncontrolled, for instance when caused by illness, overweight individuals are often perceived as responsible for their condition; King et al., in press). Although recent research found no evidence of similarity effects in structured interviews (Sacco, Scheu, Ryan, & Schmitt, 2003), in less-structured interview it is possible that interviewers' biases will be particularly strong if they do not share the applicant's stigma. Therefore, the framework that we present below can thus be used to understand interviewers' reactions to both controllable and uncontrollable visible stigmas, although biases are likely to be stronger with controllable stigmas that are not shared by the interviewer. In the next section, we present the theoretical foundations of our framework and describe the central aspects of dual-process theory.

3. Dual-process theory

Dual-process theories generally consider that human behavior, social judgments, and decision making are driven by two distinct processes that can be active simultaneously. The two processes have received different labels including intuition/reason, reflexive/reactive, System 1/System 2, and Type 1/Type 2 processes (Evans, 2008; Samuels, 2009; Stanovich, 1999). For reasons of clarity, we will further refer to Type 1 and Type 2 processes, as these are considered to be the most neutral labels.

Dual-process theories in reasoning (Evans, 2006), judgment and decision making (Kahneman & Frederick, 2002), and social cognition (Chen & Chaiken, 1999), all propose that Type 1 processes are driven by cognitive scripts and heuristics. Cognitive scripts are knowledge structures that guide behavior in familiar situations or when interacting with targets that are familiar (Abelson, 1981; Bozeman & Kacmar, 1997; Gioia & Poole, 1984). Heuristics are simple procedures, or judgmental rules, that offer often imperfect but satisfactory reactions to certain situations or problems (Tversky & Kahneman, 1974). Both scripts and heuristics may be innate, or acquired through learning or experiences (Evans, 2008; Kahneman & Frederick, 2002; Kahneman & Klein, 2009). The defining feature of Type 1 processes is that they do not impose large demands on working memory (Evans, 2008; Evans & Stanovich, 2013). This feature implies that Type 1 processes operate outside of an individual's control, are activated immediately when required, function automatically, and have a high processing capacity as they work in parallel.

In general, we all rely on Type 1 processes to direct our common day-to-day behaviors. Type 1 processes are used to execute undemanding operations such as information registration, processing, interpretation, and integration of information. Additionally, Type 1 processes include those that execute routine operations that are acquired through rehearsal, intensive practice, and experience. For example, observing and identifying traffic signs, such as a stop sign, and initiating behaviors to stop the car are done automatically and hence are driven by Type 1 processes. Overall, Type 1 processes are able to perform a whole range of tasks of which the outcomes are referred to as intuitive. Intuitive Type 1 outcomes, or impulses, can take many forms such as urges, behaviors, thoughts, and emotions.

Contrary to Type 1 processes, Type 2 processes are conscious processes that draw on working memory (Evans, 2008). This dependence on working memory implies that Type 2 processes are slow, place high executive demands on cognitive resources, and include deliberate processes that leave less available processing capacity. The outcomes of Type 2 processes can be thoughts, judgments, or behaviors that are under control of the individual, and thus based on normative rules and thoughtful deliberation (Sloman, 1996). Despite the clear distinction in our description of the processes, Type 2 processes cannot function without the support of Type 1 processes as these continuously provide relevant information to Type 2 processes by retrieving information from memory and by updating working memory.

Overall, Type 2 processes serve two main purposes. The first is to execute highly complex cognitive operations that require a high level of control and conscious awareness. The second task is to monitor the impulses generated by Type 1 processes, and endorse, correct, or override these depending on their appropriateness in a specific situation, and the extent to which the impulses achieve the individual's goals (Evans, 2008; Kahneman & Frederick, 2002; Stanovich, 1999). If there is a conflict between the Type 1 impulses, and those expected in function of the individual's situation or goals, then Type 2 processes can correct or override these impulses. This process results in a temporal pattern of actions (e.g., behaviors), which are initiated by Type 1 processes, and adjusted once Type 2 processes are activated. In other words, when Type 2 processes override initial impulses, changes in behavior and cognition are expected. Conversely, if the impulses of Type 1 processes are considered desirable given the situation and goals, Type 2 processes will endorse the impulses and not modify them. When Type 2 processes do not interfere with Type 1 impulses, or casually endorse these impulses, the resulting outcomes are labeled as intuitive (Kahneman & Frederick, 2002). Given that intuitive outcomes are endorsed by Type 2 processes, there is no temporal pattern of actions, and the execution of the actions minimally draws on the individual's cognitive resources. Moreover, both the execution of highly complex cognitive operations, and the correction of Type 1 impulses, demand self-control and hence draw on the individual's limited cognitive resources (Muraven & Baumeister, 2000).

In sum, Type 1 processes are automatically activated and rely on existing heuristics and cognitive scripts that are formed through knowledge and experience. The outcomes of Type 1 processes are uncontrolled intuitive heuristic responses that can take various forms including behavioral impulses, reactions, thoughts, impressions, and judgments. Type 2 processes execute complex cognitive operations and monitor the outcome or responses of Type 1 processes. When Type 1 responses are deemed appropriate, and goal-directed, Type 2 processes will not intervene. However, when the outcomes or impulses of Type 1 processes are conflicting with situational demands, or the task goals, Type 2 processes override the responses and initiate behaviors and thoughts in function of the social situation and the specific goals. In the following section, we discuss how Type 1/Type 2 processes progress and affect bias during the job interview.

4. Dual-process theory and interview bias

Before describing the mechanisms by which Type 1/Type 2 processes influence interviewers' evaluation of stigmatized applicants in job interviews, it is essential to specify the boundaries of our theoretical framework: The general mechanisms that we describe below apply specifically to one-on-one, face-to-face interviews during the selection phase, when interviewers aim to screen applicants on job relevant qualifications and meet applicants for the first time. Yet, we recognize that interviews can be more or less structured and diagnostic in nature (e.g., unstructured vs. structured; initial screening vs. final; Levashina et al., 2014) and may be conducted for different purposes (e.g., selection vs. recruitment; Marr & Cable, 2014). Job interviews further differ in the amount of interviewers (e.g., panel vs. one-on-one; Wiesner & Cronshaw, 1988; McDaniel, Whetzel, Schmidt, & Maurer, 1994) and medium to conduct the interview (e.g., video vs. phone vs. face-to-face; Straus, Miles, & Levesque, 2001). Therefore, where relevant, we will

discuss how other situational factors (i.e., interview structure, type of information available, purpose of the interview), or interviewer characteristics might affect Type 1/Type 2 processing and interviewers' biases.

Throughout the job interview various situational demands are placed on the interviewer, affecting interviewers' information processing and judgment. Interviewers, for instance, may encounter job candidates with stigma which may elicit Type 1 processes and instigate bias. At the same time, interviewers should adhere to their professional goals and standards, which may trigger Type 2 processes to counter biased judgments. The way and extent that Type 2 processes 'monitor' Type 1 impulses might, however, depend on the interview stage.

In their work on the job interview, Robert Dipboye and Therese Macan were among the first to recognize and thoroughly discuss the dynamic and multi-phased nature of the job interview (Dipboye & Macan, 1988). Following their seminal work, many researchers consider the job interview as a three-phased process (e.g., Levashina et al., 2014), starting with the *pre-interview stage* in which the interviewer shapes initial impressions about the candidate based on a limited number of information that is exchanged and available about the job candidate (i.e., paper credentials; Dipboye & Johnson, 2013) and initial impressions are formed quickly (e.g., Stewart, Dustin, Barrick, & Darnold, 2008). The pre-interview stage is followed by the actual *interview stage*, which can start with a rapport building. Subsequently, in the interview stage, both the applicant and the interviewer gather more (job-related) information and the interviewer engages in confirmatory processing or adjustments of his/her first impressions about the candidate. Finally, in the *post-interview stage*, the interviewer seeks to incorporate all the information gathered about the applicant to be able to make an informed decision. In this stage, job candidates' qualifications are judged by the interviewer based on impressions and information gathered in the preceding stages.

Because each of the successive interview stages differs in the amount and type of candidate/organizational information that becomes available (situational factors, like interview structure components) as well as the way in which candidate information is processed by the interviewer (interviewer factors, like individual difference factors in attitudes and personality), we propose that Type 1 and Type 2 processes may play out differently throughout the different interview stages in affecting bias. The prevalence and importance of moderating factors might also be contingent on the specific interview stage under consideration. Therefore, a *modular approach* is taken on interview bias and Type 1/Type 2 processing of interview information. Fig. 1 represents the dual-process perspective on interview bias in a schematic way. Building on the dual-process theory, we formulate 12 propositions related to the three interview stages, as discussed next.

4.1. Stage 1: Pre-interview and Initial Impressions

4.1.1. Type 1 processes

During the pre-interview stage, the interviewer forms initial impressions about the applicant based on the information obtained previously (e.g., resume, cover letter, test scores) or during the first seconds after meeting the applicant. Forming initial impressions about others is inherent to human nature. The speed with which impressions are formed suggests that this process relies on existing heuristics and thus on automatic Type 1 processes (Bar, Neta, & Linz, 2006; Willis & Todorov, 2006). During the formation of impressions, interviewers are dependent on the serial presentation of visual cues, verbal cues, and behavioral cues such as a handshake (DeGroot & Motowidlo, 1999; Motowidlo & Burnett, 1995; Stewart et al., 2008). Information is presented serially as a function of the speed with which the different cues become available to the interviewer. Specifically, research has shown that visual cues, such
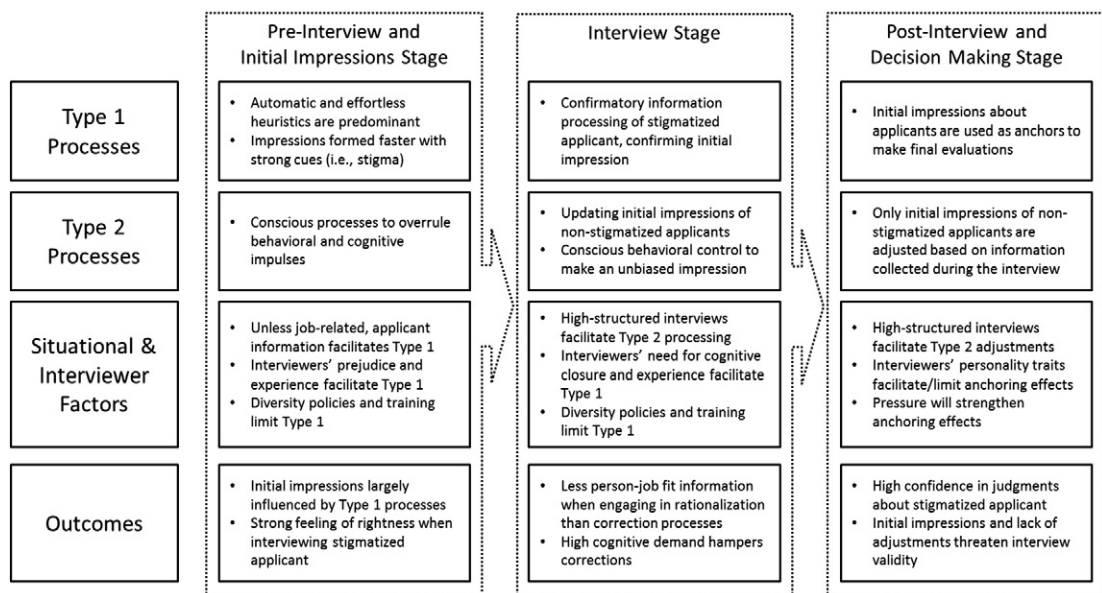

Fig. 1. A dual-process framework of interview bias.

as the applicant's appearance, are immediately available and easy to process (Bruner, 1957; Thorpe, Fize, & Marlot, 1996), whereas verbal and behavioral cues only become available as the social process advances. Hence, visual information such as appearance is likely the first source to provide information during the initial impression formation process. Indeed, heuristic outcomes, such as initial impressions, are derived from the observer's impression of the applicant's physical characteristics (e.g., appearance, voice, other visible stigma), and related abstract properties such as similarity, surprise, and affective valence (Kahneman, 2003b).

Initial impressions are formed for both stigmatized and non-stigmatized applicants, but an applicant stigma increases the speed with which impressions are formed. This raises the question to what extent stigma influences the impression formation process. Theorists have emphasized that observation of the stigma instantly triggers emotional and physiological reactions in the observer that are consistent with evolutionary reactions to threat and fear (Blascovich et al., 2001; Bos et al., 2013; Crocker et al., 1998; Jones et al., 1984; Major & O'Brien, 2005). Therefore, observation of the stigma will automatically direct one's attention (e.g., staring at the stigma) and trigger scripts that initiate behavioral, cognitive, and affective reactions in the observer (i.e., interviewer) including avoidance and the activation of stereotypes (Amodio & Devine, 2006; Houston & Bull, 1994; Neumann & Strack, 2000; Pryor et al., 2004; Zajonc, 1980). For instance, candidates' foreign looks or accent can activate stereotypes and prejudiced attitudes about ethnic minorities, affecting interviewers' first impressions and job suitability ratings (Purkiss, Perrewé, Gillespie, Mayes, & Ferris, 2006). The same applies to other visible stigma, like applicants' weight (Finkelstein, Demuth, & Sweeney, 2007; Hebl & Turchin, 2005), physical appearances and unattractiveness (Dipboye, 2005), physical disability (Hebl & Skorinko, 2005) or any other visible stigma.

Proposition 1a. Interviewer's initial impression formation of the applicant is a heuristic process that is driven by automatic Type 1 processes.

Proposition 1b. Initial impressions are formed faster when there are strong cues available such as stigmatizing applicant characteristics.

4.1.2. Type 2 processes

Type 1 impulses (like staring at the stigma or the activation of stereotypes) are conflicting with what is considered as an appropriate approach in the professional context of the job interview, and are therefore counterproductive for the attainment of the interviewer's professional goals. As Type 2 processes are rule-based, the interviewers' subsequent behavior adheres to the societal rules that are constrained by expectations of the interviewer, applicant, and company, and by legal standards and legislation that stresses equal treatment of applicants to avoid the possible legal consequences of discrimination (Dipboye & Johnson, 2013). As a result, Type 2 processes will be triggered in an attempt to control and override Type 1 impulses and to generate new cognitive/behavioral scripts that are created in function of the interviewer's situational and task-specific goals (Bozeman & Kacmar, 1997; Gioia & Poole, 1984; Lord & Kernan, 1987; Pryor et al., 2004).

Indeed, evidence from neuroscience shows that perception of a stigmatized individual activates brain regions that are related to inhibitory Type 2 processes (Krendl, Macrae, Kelley, Fugelsang, & Heatherton, 2006). For example, staring at the stigma (e.g., a port-wine stain), or stigma specifying features (e.g., fizzy hair as a feature of ethnicity), is considered socially undesirable behavior in general. This is especially true in a formal setting such as the job interview as this would likely be negatively perceived by the applicant.

In reaction to the conflict between the Type 1 impulse of staring at the stigma, and the interviewers' social and professional norms, Type 2 processes may be activated in order to inhibit and override these behavioral impulses by initiating more controlled behaviors (i.e., not staring at the stigma; deactivating stereotypes). However, this process of inhibition and overriding occurs slowly due to the difference in speed with which both types of processes are activated, and thus results in a pattern of behaviors that unfolds over time (Langer, Fiske, Taylor, & Chanowitz, 1976; Pryor et al., 1999; Pryor et al., 2004; Rinck & Becker, 2006). Similarly, Type 1 impulses may also manifest themselves in the form of emotions that are immediately activated upon perception of the stigmatizing applicant feature (LeDoux, 1995), and are subsequently regulated through conscious (i.e., Type 2) response-focused strategies such as suppression (Devine, 1989; Dovidio, Kawakami, Johnson, Johnson, & Howard, 1997; Gross, 2002).

Proposition 2. Behavioral, emotional, and cognitive impulses in response to the stigmatized applicants create a conflict with the interviewers' situational and task-specific goals, and therefore trigger conscious and rule-based processes aimed at overruling these impulses.

4.1.3. Situational & interviewer factors

Whether undesirable Type 1 impulses towards the stigma are activated and regulated through conscious response-focused strategies (i.e., Type 2) also depend on the situational factors and interviewer characteristics as discussed next.

4.1.3.1. Pre-interview information

Pre-interview impressions are based on ancillary information from both the candidate and the job that is made available to the interviewer. First, unless the organization relies on a highly structured interview process (Campion, Palmer, & Campion, 1997), candidates' paper credentials (resumes, cover letters, portfolio, application blanks) or prior test scores (from knowledge tests, ability tests, personality tests) can be provided to the interviewers to review before the interview takes place. Similarly, impressions can

be formed on the basis of applicants' non-verbal behavior (handshakes, scent, and physical appearance like professional dress or tattoos) or even rumors about the candidate (Dalal, Diab, & Tindale, 2015). Some of this candidate information, like physical appearance, may make the stigma more salient and thus trigger Type 1 processes, whereas other may provide more pertinent (or potentially job-related) information about the applicant and facilitate Type 2 corrections.

Moreover, this information can be either a valid or invalid predictor for future job performances. Personality and ability test scores (Barrick, Mount, & Judge, 2001; Schmidt & Hunter, 1998), for instance, provide more detailed, norm-scored and validated information about individuals that will initiate rule-based reflection and Type 2 processing than e.g., rumors. Indeed, in the absence of valid predictors, interviewers may form first impressions based on irrelevant data from both overt cues (like candidate picture IDs or accent; Dipboye, Arvey, & Terpstra, 1977; Dipboye, Fromkin, & Wiback, 1975; Purkiss et al., 2006; Watkins & Johnston, 2000) and more subtle cues in ancillary information (like applicants' names and extracurricular activities in resumes; Derous & Ryan, 2014; King, Mendoza, Madera, Hebl, & Knight, 2006). These cues might signal candidates' race, ethnicity, sex, age, appearances, and other potentially stigmatizing candidate features which may trigger associative, Type 1 processes and activate intergroup bias on subsequent interactions.

Job information can further affect Type 1/Type 2 processing of stigmatizing features. Information about applicants should be considered in the context of the job opening and interviewers may perceive individuals from stigmatized groups to be a better or lesser fit to the job depending on job stereotypes (i.e., 'stereotype fit hypothesis'; see Dipboye, 1992; Heilman, 1983). For instance, unattractiveness was found to benefit female applicants when screened for a masculine sex-typed job (i.e., director of security; Johnson, Podratz, Dipboye, & Gibbons, 2010). Hence, job stereotypes also act as heuristics that might reinforce Type 1 processing of stigmatizing candidate features at the expense of a more thoughtful person-job fit analysis. Under specific conditions, stigma might even be perceived as a valid signal of job-related traits (Bangerter, Roulin, & König, 2012), and initiate more thoughtful processing of candidate information (Type 2 processing). For example, whereas tattoos have been historically perceived as indicators of deviant behavior, in contemporary society this negative association is fading (Burgess & Clark, 2010) and is slowly replaced by associations to positive traits such as creativity (DeMello, 2000). Hence, for jobs that demand high levels of creativity, visible tattoos may be seen as valid signals of creativity, and may result in positive selection outcomes compared to when such signals are absent.

One possible way to overcome (or at least limit) Type 1 processes to bias first impressions is by simply preventing interviewers to check candidates' pre-interview information. Preventing interviewers to view such information is one of the ways to increase interview structure (Campion et al., 1997). Yet, aside from being rather unrealistic, this approach is not well accepted (Dipboye & Johnson, 2013). Instead, building in *accountability* by asking recruiters to justify their pre-interview impressions might instigate more thorough processing of personalized information and alleviate Type 1 processing of stigma information. Ford, Gambino, Lee, Mayo, and Ferguson (2005), for instance, showed that when White managers felt accountable for their evaluations of applicant pre-interview information (like resumes), they suppressed racial bias against African-American applicants.

Proposition 3a. Providing interviewers with pre-interview information about stigmatized applicants will facilitate initial impressions based on automatic Type 1 processes, unless the information is job-related or interviewers are made accountable.

4.1.3.2. Interviewer characteristics

The extent that stigmatizing information shapes pre-interview impressions also depends on interviewer characteristics, among which interviewers' own stigma history and prejudiced attitudes. For instance, interviewers' first impression might be more positive or negative depending on whether the interviewer possess the stigma him/herself or has positive/negative attitudes towards the stigma ('similar-to-me' and 'friendship effects'; e.g., Byrne, 1971; Cable & Judge, 1997; Kristof-Brown, Barrick, & Franke, 2002; Lin, Dobbins, & Farh, 1992; Posthuma, Morgeson, & Campion, 2002; Vivian Chen, Lee, & Yvonne Yeh, 2008). If the interviewer possesses the same stigma as the applicant (e.g., they are both from the same minority group), it is highly likely that Type 1 processes may lead to more positive emotions and first impressions.

When interviewers are motivated to control their prejudiced reactions, they might engage in more thoughtful processing of candidate information during the pre-interview phase to control Type 1 processes. As shown by Pryor et al. (2004), the onset of Type 1 processing of stigma information may be triggered by high levels of prejudice but dissipate gradually when one experiences his/her own negative reactions and tends to control prejudiced reactions. This is also evidenced in a selection setting by Derous, Ryan, and Nguyen (2012), who showed that participants evaluated ethnic minority applicants' pre-interview credentials (resumes) more favorably when they scored high on motivation to respond without prejudice (i.e., when they were concerned about whether others thought they were prejudiced).

It has further been argued that interviewers often rely on intuitive judgments and that such a tendency is especially present with experienced interviewers (Highhouse, 2008). In a series of studies, Dipboye and Jackson (1999) found that the biasing effects of initial information on interviewers' questioning was larger for experienced than inexperienced interviewers, notwithstanding the fact that experienced interviewers seemed to have greater confidence in their own interview abilities and the overall validity of the interview. One potential explanation is that experienced interviewers could approach the situation 'on automatic' and rely especially on fast heuristics associated with Type 1 processes.

Proposition 3b. Interviewers' prejudiced attitudes and level of experience will increase Type 1 processes when forming initial impressions about stigmatized applicants, whereas similarity with the applicant and concerns about prejudice will decrease Type 1 processes.

4.1.3.3. Organizational characteristics and policies

Formal anti-discrimination or diversity policies present in the organization can also act to reduce Type 1 processes. Organizational climates that support diversity signal to employees (e.g., interviewers) that discriminatory behaviors are considered inappropriate (Avery, 2011). Therefore, when organizations have clear policies that value diversity in the workplace and/or punish discriminatory behaviors, interviewers would be pressured to engage in Type 2 processes and ignore stigmas or suppress their influence on initial impressions. For instance, clear codes of conducts with enforced sanctions can reduce discrimination against foreigners based on application documents (Petersen & Krings, 2009).

Providing diversity training to interviewers might be another fruitful avenue for organizations to avert bias. For a long time, social psychologists have investigated impression formation (Fiske, Lin, & Neuberg, 1999) and ways to overcome negative expectations about outgroup members one is going to interact with (e.g.,'intergroup forecasting error'; Macan & Merritt, 2011; Mallett, Wilson, & Gilbert, 2008). For instance, through awareness training, interviewers may become mindful about impression formation processes and interviewers could learn how to formulate testable hypotheses about applicants' pre-interview credentials (Type 2 processes) to control intuitive Type 1 reactions (i.e., first impressions) that bias judgment (Dipboye & Johnson, 2013; Kruglanski & Mayseless, 1988). Some researchers have even proposed to appoint only interviewers demonstrating low levels of prejudice against minority groups (Lindsey, King, McCausland, Jones, & Dunleavy, 2013).

Proposition 3c. The presence and enforcement of diversity or antidiscrimination policies and diversity training provided to interviewers will instigate Type 2 processes to control Type 1 processes that elicit undesirable initial impressions about stigmatized applicants.

4.1.4. Outcomes

4.1.4.1. Initial impressions

Building on the automaticity and speed with which initial impressions are formed, initial impressions may be regarded as the output of a heuristic process in the pre-interview stage. The impression formation process is akin to the attribute substitution heuristic (Kahneman, 2003b; Kahneman & Frederick, 2002). In attribute substitution, a difficult question is substituted with an easier and more approximate question that can be answered intuitively. More specifically, answering the question "*is this applicant the optimal choice to fill the vacancy*?" requires a thorough analysis and comparison of strengths and weaknesses of all job applicants (i.e., Type 2 process), whereas this information is not directly available to the interviewer. Therefore, interviewers tend to answer easier questions such as "*is this applicant the right type for the job*?" (Cable & Judge, 1997), which can be answered intuitively based on physical and abstract properties of the applicant such as appearance and behavior (Barrick, Shaffer, & DeGrassi, 2009; Stewart et al., 2008). This substitution reduces the need for a thorough analysis, and avoids problems with information that is not yet available (e.g., when not all applicants have been screened), but rather draws on the interviewers' intuitions that stir initial impressions as outcomes of Type 1 processes.

Proposition 4a. Based on the pre-interview information, interviewers form initial impressions about both stigmatized and non-stigmatized applicants relying on simplifying Type 1 heuristics.

4.1.4.2. Feeling of rightness

Yet, whether interviewers act on initial impressions or adjust their initial impressions may depend on a metacognitive intuition regarding the rightness of the response (Shynkaruk & Thompson, 2006; Thompson, 2009; Thompson, Turner, & Pennycook, 2011; Thompson et al., 2013). This intuition, which has been labeled as a *feeling of rightness* (see Thompson, 2009, for an in-depth review of the metacognitive concept), signals the extent to which the individual is confident about the accuracy of the heuristic response. The strength of the feeling of rightness is largely determined by the fluency with which the heuristic response is provided, or the ease with which it is recalled (Schwarz & Vaughn, 2002). Fast heuristic responses, such as initial impressions of stigmatized applicants, prime the interviewer with a metacognitive experience of being correct (i.e., strong feeling of rightness), rendering elaboration or corrections of the initial impressions unnecessary (Gilbert, Pelham, & Krull, 1988; Nordstrom, Hall, & Bartels, 1998; Thompson et al., 2011; Thompson et al., 2013). However, when the heuristic response fluency is slow (like with initial impressions of non-stigmatized applicants), interviewers will experience lower levels of feeling of rightness associated with the initial impression. This initiates the need to elaborate (i.e., individuation) and adjust (i.e., re-categorization) the initial impression by gathering and including additional verbal and non-verbal information.

Proposition 4b. The speed with which initial impressions are formed determines the meta-cognitive experiences of rightness associated with the initial impression. It results in a stronger feeling of rightness when impressions are formed fast (e.g., when stigmatizing features are present), than when impressions are formed slowly (e.g., when stigmatizing features are absent).

4.2. Stage 2: Interview

The interview stage is essentially a social exchange of information (Macan & Merritt, 2011). Interviews commonly start with rapport building, in which interviewers and applicants discuss light topics, such as applicants' hobbies. The goal of this initial phase

is to relax the applicant and to establish rapport (Barrick et al., 2010; Chapman & Zweig, 2005; Rynes, 1989). In order to establish good level of rapport, interviewers need to present themselves as agreeable and friendly, but also as knowledgeable and professional towards the applicant (Chapman & Zweig, 2005; Dipboye & Johnson, 2013; Liden, Martin, & Parsons, 1993).

The rapport building phase is followed by a questioning or interview phase in which the goal of the interviewer is to gather information that is indicative of the competencies required to perform the specific job (Campion et al., 1997; Levashina et al., 2014). During this exchange, interviewers gather further information to make an accurate and objective assessment of various applicant characteristics such as personality, interpersonal skills, mental capacity, and job knowledge (Huffcutt, Conway, Roth, & Stone, 2001). The applicant provides information first and foremost by answering the interview questions, but information can also come in the form of applicant (non-verbal) behavior and appearance. Similarly, applicants gather information to extend their knowledge of the specific job characteristics, and to form an impression of the organization. This information is provided by the interviewer, through answering questions, providing information, and by their overall behavior as representatives of the organization (Dipboye & Johnson, 2013; Wilhelmy, Kleinmann, König, Melchers & Truxillo, in press). As such, interviewers also aim to present a favorable impression of themselves and their company to the applicant.

Next, we discuss evidence showing how initial impressions from the pre-interview stage may either move interviewers into the direction of maintaining consistency with their first impressions (due to Type 1 processing or failure of Type 2 processes to correct initial impressions) or how they could move into the direction of gathering information that is inconsistent with one's first impression (due to Type 2 processing).

4.2.1. Type 1 processes

During the interview phase following the rapport building, the interviewer and applicant will discuss job-relevant topics with the goal of assessing the applicant on a wide variety of job-relevant competencies (Huffcutt et al., 2001). In other words, the interviewer gathers information in order to answer the difficult question "*is this applicant the optimal choice to fill the vacancy*?", which requires Type 2 processes. However, interviewers rely on cognitive scripts to guide them through the different stages of the interview (Abelson, 1981; Gioia & Poole, 1984), and a preliminary answer to this question has already been proposed through the initial impression. Thus, interviewers may need to update their initial beliefs of the applicant during the interview stage. As indicated in the initial impression formation process, Type 1 processes answer an easier but related question through the use of heuristics, which yields a satisfactory but incomplete response to the difficult question. Indeed, a spill-over effect of the initial impression formation process to the interviewer's information gathering and processing style has been reported (Dipboye & Jackson, 1999).

Although interviewers are likely to gather additional information in order to update the existing impression of the applicant, this updating process is generally not found when the applicant can be categorized based on stigmatizing applicant characteristics (Brewer, Weber, & Carini, 1995; Fiske et al., 1999; Sherman, Stroessner, Conrey, & Azam, 2005; Wilder, 1978). The failure to gather additional information and update the initial impression may affect the interviewers' memory for interview content (Madera & Hebl, 2012), and may be due to a reduced sensitivity to new information as an effect of a strong initial impression (Hogarth & Einhorn, 1992). Dougherty, Turban, and Callender (1994), for instance, showed that interviewers follow-up positive pre-interview impressions by showing more positive regard to the applicant. Equally, when interviewing stigmatized applicants, interviewers' initial impressions may also move them into the direction of maintaining behavioral consistency with their first impressions particularly when interviewers have a strong feeling of rightness about their first impressions on the job candidate (Swann & Ely, 1984).

Initial impressions may indeed serve as *self-fulfilling prophecies* that – by definition- create congruent behaviors during subsequent interview phases based on earlier formed expectations and hypotheses (like stereotypes; Jussim, 1986). For instance, several studies consistently showed effects of initial impressions from both pre-interview information (Springbett, 1958) and rapport building (Barrick, Dustin, Giluk, Stewart, Shaffer, & Swider, 2012; Barrick, Swider, & Stewart, 2010; Levashina et al., 2014) on post-interview evaluations. Levashina et al. (2014) aptly commented that rapport building could contaminate interview judgments through initial impressions, as these are based on job-irrelevant information. It is suggested that interviewers' initial impressions based on pre-interview credentials and rapport building might affect how both the interviewer and candidate behave during the interview stage and the kind of decisions the interviewer reaches afterwards (Dipboye, 1982). Overall, we can expect interviewers facing stigmatized applicants to engage in Type 1 confirmatory information processing, such as focusing on stigmatized applicants' verbal and non-verbal behaviors, thereby confirming initial impressions.

Proposition 5. Interviewers engage in a confirmatory information gathering and/or interpretation style when interviewing an applicant with a stigmatizing feature.

4.2.2. Type 2 processes

Gathering information to be able to make optimal judgment of the applicant's skills and abilities requires the simultaneous execution of a wide variety of tasks by the interviewer, including formulating questions, interpretation of verbal and non-verbal information, generation of follow-up questions when additional information is required, continuous tracking of interview progress, translation of answers to relevant traits and abilities, and even identification of self-presentation or faking by the applicant (e.g., Roulin, Bangerter, & Levashina, 2015). Many of the tasks during the interview stage require active cognitive control by the interviewer (i.e., Type 2 processes). This cognitive control over the behavior towards the stigmatized applicant is expected to continue during the interview stage as Type 1 processes continue to produce undesirable behavioral impulses, and Type 2 processes need to suppress and overrule these impulses.

Moreover, because fast and successful categorization of applicants based on their stigmatizing features results in initial impressions with a strong feeling of rightness, in reaction to these heuristic responses, Type 2 processes engage in the process of rationalization or justification of the initial impression during the interview stage. Strong beliefs in the initial impression lower the need to reassess the impressions and result in a preference for confirmatory information (Dipboye, 1982; Dougherty et al., 1994; Evans, 2003; Macan & Dipboye, 1988; Nickerson, 1998; Windschitl, Scherer, Smith, & Rose, 2013). Information that confirms the initial impression is accepted without much effort, whereas disconfirming evidence will be scrutinized and explained away (Jonas, Schulz-Hardt, Frey, & Thelen, 2001; Lord, Ross, & Lepper, 1979; Sherman & Frost, 2000; Sherman et al., 2005).

Thus, rather than updating the model or representation of the stigmatized applicant, Type 2 processes are engaged in justification of the current representation. Dual-process theory suggests that this possibly results from Type 2 processes that work on incomplete information, as the incoming information is interpreted and filtered by Type 1 processes (Arbuthnott, Arbuthonott, & Thompson, 2005; Evans & Over, 2013; Mussweiler & Strack, 1999; Thompson, 2009). For instance, when interacting with a stigmatized job seeker, individuals (e.g., store managers, interviewers) tend to limit interaction length, and attempt to terminate the interaction prematurely (Hebl, Foster, Mannix, & Dovidio, 2002; Hebl, King, Glick, Singletary, & Kazama, 2007; Singletary & Hebl, 2009). Although reducing interaction time is a type of avoidant behavior, it may also signal the interviewers' limited attempt or need for information, and indicate that confirmation of the initial impression has occurred.

However, when interviewers did not succeed to instantly categorize the applicant into a meaningful (social) category, and the initial impression is related to a weak feeling of rightness, interviewers will engage in more conscious Type 2 processes. More specifically, in order to make an objective evaluation, interviewers need to gather salient information to base the final evaluation upon. During the interview, interviewers will consciously develop different relevant hypotheses regarding the applicant's abilities which are tested through questioning. Answers by the applicant, both confirming and disconfirming, are interpreted and used to update the model or representation of the applicant (Evans, 2006; Torrens, 1999).

For instance, some studies (Macan & Hayes, 1995; Hayes & Macan, 1997) illustrated that applicants who acknowledge and/or explain their stigma may be evaluated more favorably by the interviewer. This is in line with predictions from impression formation theories (Fiske et al., 1999), which state that individualization might be effective to counter biased judgments. The actual effect, however, of acknowledging/discussing stigma-related aspects during the interview (like how one's stigma might not hinder one's job performance) might depend on several moderators, among which the type of stigma (controllable vs. uncontrollable; Pryor et al., 2004), the interview phase in which this information is discussed (e.g., late vs. early; Hebl & Skorinko, 2005; Roberts & Macan, 2006), and the applicants' level of job-related qualification (Posthuma et al., 2002). We additionally note that this updating of the initial beliefs is particularly possible if initial impressions are relatively weak (Hogarth & Einhorn, 1992).

Research has also shown that the generally expected negative effects of automatic activated intergroup bias on subsequent interactions (e.g., low interaction quality, negative behavior; Dovidio, Kawakami, & Gaertner, 2002) can be attenuated when individuals are able to overcome negative associations. Moreover and somewhat paradoxically at first sight, individuals (i.e., interviewers) with strong negative associations can be perceived as more positive by the stigmatized interaction partners (i.e., applicants), probably as a result of conscious adjustments in interpersonal behavior (Gonsalkorale, Hippel, Sherman, & Klauer, 2009; Shelton, Richeson, Salvatore, & Trawalter, 2005). Thus, when interviewers are aware of their inappropriate reactions towards stigmatized applicants, they may be motivated to adjust their behavior towards behavior that triggers more positive evaluations by the stigmatized applicant. These behavioral adjustments by the interviewer are indicators of Type 2 processes that overrule Type 1 impulses, and are driven by self-regulation (Cortes, Kammrath, Scholer, & Peetz, 2013; Vohs, Baumeister, & Ciarocco, 2005), self-monitoring (Gangestad & Snyder, 2000; Turnley & Bolino, 2001), and/or impression management (Bolino, Kacmar, Turnley, & Gilstrap, 2008; Higgins & Judge, 2004). It is therefore conceivable that interviewers may similarly adjust their behavior positively towards a stigmatized applicant (i.e., Type 2 processes), and that societal and situation specific rules and expectations drive this motivation (Dipboye & Johnson, 2013).

Proposition 6a. Interviewers will be less likely to update initial impressions (i.e., engage in confirmatory information processing) when they have a strong feeling of rightness, e.g., when they interview stigmatized applicants.

Proposition 6b. Interviewers will be more likely to update initial impressions (i.e., engage in corrective information processing) when they have a weak feeling of rightness, e.g., when they interview non-stigmatized applicants.

Proposition 6c. Interviewers may consciously control their behavior towards stigmatized applicants in order to make an unbiased impression on the applicant, resulting in a more positive perception by the stigmatized applicant.

4.2.3. Situational & interviewer factors

4.2.3.1. Interview structure and format

Structuring the interview has been considered a promising avenue to increase diagnosticity and to avert interview bias. And although much debate exists about what exactly is meant with 'interview structure', it is clear that unstructured interviews are more prone to adverse impact than structured interviews due to the exchange of non-job related information and the fact that interviewers might rely more on their implicit person/job theories (Arvey & Campion, 1982; Huffcutt & Roth, 1998; Levashina et al., 2014). Considered from a dual-process perspective, building in structure (e.g., by asking the same questions to all applicants in the same order or using standardized rating scales during the interview to evaluate each response; Campion et al., 1997; Levashina et al., 2014) might limit Type 1 processes to filter incoming information, might reduce interviewers' overall cognitive load, and will aid

interviewers to engage in Type 2 processes. For instance, allowing interviewers to evaluate candidates during the interview stage (i.e., after each question) instead of in the very end (i.e., the post-interview stage), appears to reduce interview bias (Levashina et al., 2014), likely because of the reduction in interviewers' demands and cognitive load. It also forces the interviewer to gather and evaluate new (job-related) information provided by the applicant, thus encouraging Type 2 processes (i.e., corrections) and limiting Type 1 processes (i.e., confirmation).

Furthermore, the type, format, and length of the interview may also facilitate vs. impede Type 1/Type 2 information processing. When organizations use very short interviews, for instance as a screening tool to quickly assess a large number of future college graduates during campus fairs, interviewers' objective is to reach a pass/fail decision in only a few minutes. In such a situation, the interview stage will be shorter than in a traditional selection interview, and less job-related information can be gathered. This may force interviewers to rely on Type 1 heuristics to evaluate the applicant and limit opportunities for Type 2 disconfirming processes to take place. Interview format may also influence interviewers' Type 2 impulse control. In panel interviews, interviewers not only have to act in front of the applicant, but also in front of their colleagues. Interviewers tend to behave in ways that present an impression of harmony within the panel (Wilhelmy et al., in press). This can increase the pressure to adjust behaviors positively towards stigmatized applicants. Because such behaviors are cognitively demanding, however, it may also prevent interviewers to engage in complex Type 2 information gathering or impression corrections, which needs further investigation.

Proposition 7a. More structured and longer interviews will aid interviewers to engage in Type 2 information processing during the interview stage.

4.2.3.2. Interviewer characteristics

Further, interviewers' vulnerability to stigmatizing information not only affects pre-interview judgments but might also spill-over into the interview phase. Of particular relevance is *how* interviewers process information during the interview phase. Rater's need for cognitive closure (NFCC), for instance, is considered as a relatively stable individual difference variable to keep one's evaluations close to one's initial impressions (Type 1 processing) rather than correct them in light of subsequent information (Type 2 processing; see Tversky & Kahneman, 1974). Hence, NFCC reflects one's aversion of ambiguity and resistance to objective persuasion where opinion has been formed a priori, and can be prompted by particular situations (Kruglanski & Webster, 1996; Webster & Kruglanski, 1994), like interviews. A study on police officers' style in interviewing criminal suspects, for instance, showed that officers who did not tolerate ambiguity (high NFCC) were more likely to have already developed a preferred situational model (or explanation) about the suspects' behavior prior to the interview (Alison, Kebbell, & Leung, 2008). Furthermore, police officers' intolerance of ambiguity (NFCC) seemed related to the type of interview strategies police officers used while interviewing suspects, with those high on NFCC using both more coercive interview strategies (like interruptions, leading/misleading questions, use of closed questions, hammering or quickly firing of questions) and facilitative strategies (like paraphrasing, rehearsing, rapport establishment, showing empathy, see Alison et al., 2008; Wright & Powell, 2006).

Job interviewing is often ambiguous with many different inferences that can be generated to explain applicants' past behavior and predict their job suitability. Therefore, NFCC seems relevant in considering interviewers' judgments. Buijsrogge, Derous, and Duyck (2012), for instance, showed that interviewers' NFCC moderated differences in the processing of visual and verbal information from stigmatized applicants during rapport building. When stigmatizing information was available (like a port-wine stain), raters high in NFCC 'seized' on stigma-related, visual cues (i.e., a port-wine stain) which negatively affected their memory for non-stigma-related, verbal information exchanged during this phase (i.e., Type 1 processing) and even resulted in lower hiring intentions (post-interview; see further). Raters low on NFCC, on the contrary, were able to process verbal information from stigmatized interviewees (as exchanged during rapport building) to a better extent (Type 2 corrective processes). Hence, interviewers high on NFCC may rely more on initial impressions from both pre-interview and rapport building (Type 1 processes) than on individuating information, which requires a more extensive processing of information as instigated by corrective Type 2 processes and which may even affect one's interview style (i.e., facilitative vs. coercive).

As shown, conducting a job interview induces high demands on interviewers, and requires high levels of conscious involvement (Dipboye & Johnson, 2013; Nordstrom et al., 1998). Although these tasks may be demanding at first, through interview training and experience the process of establishing rapport, asking questions, and presenting a favorable impression is likely to become an automated process (Pratt, Rockmann, & Kaufmann, 2006; Tice, Butler, Muraven, & Stillwell, 1995). In other words, interview tasks and interview training may be initially effortful, and thus driven by Type 2 processes. But with increasing levels of interviewing experience, interview tasks may migrate to Type 1 processes and become less effortful, as cognitive scripts for these processes are developed (Evans, 2008; Kahneman & Frederick, 2002). As a consequence, interview experience might lead to quicker decisions but might also instigate more erroneous judgments (i.e., Type 1 processes). For instance, in a context of college admissions, Gehrlein, Dipboye, and Shahani (1993) showed that interview ratings from experienced interviewers were less valid predictors of GPA scores than those from inexperienced interviewers. Experience seems to breed unwarranted confidence (i.e., Type 1) whereas less experienced interviewers might more carefully conduct the interview and be more thoughtful to compensate for lower levels of confidence (i.e., Type 2). Hence, paradoxically, interviewer experience might not be helpful in overcoming first impressions and making valid evaluations of candidates (Dipboye & Jackson, 1999).

Proposition 7b. Interviewers' need for cognitive closure and interview experience will increase their reliance on Type 1 processes particularly when interviewing stigmatized applicants.

4.2.3.3. Organizational factors and policies

We discussed above how anti-discrimination or diversity policies can reduce Type 1, but encourage Type 2 processes in the pre-interview stage. We expect such effects to be similar in the interview stage, such that organizational diversity initiatives and pro-diversity climate could encourage corrective Type 2 processes (like information gathering but also behavioral control).

Proposition 7c. The presence and enforcement of diversity or antidiscrimination policies and diversity training provided to interviewers will instigate Type 2 processes to control Type 1 processes when interviewing stigmatized applicants.

4.2.4. Outcomes

4.2.4.1. Person-job fit information

The main objective of the interview phase is to collect job-related information about the applicant (Levashina et al., 2014), which may help the interviewer more accurately answering the question "*is this applicant the optimal choice to fill the vacancy*?" As such, one key outcome is the quantity and quality (or job-relatedness) of information gathered from the applicant during the interview phase. Indirectly, the length of the interview or the number of questions asked to applicants can be considered as pertinent indicators of the information gathered. Information gathered will thus depend on the Type 2 processes used. If interviewers engage in rationalization or justification of their initial impression (which is likely with stigmatized applicants), gathered information will be limited. For instance, Dougherty et al. (1994) found that when interviewers had a clear initial impression about the applicant, they would spend less time asking questions during the interview stage. However, if interviewers engage in more conscious information gathering and processing in order to correct initial hypotheses regarding applicants' qualities (which is likely with non-stigmatized applicants), then a richer set of information will be collected.

Proposition 8a. Person-job fit information is more limited when interviewers engage in rationalization (confirmation) of initial impressions than when they engage in correction (disconfirmation) of initial impressions.

4.2.4.2. Optimal level of cognitive demands

To assess person-job fit, interviewers need to optimize their cognitive demands during the interview, which is another key outcome of this phase. As interview tasks may induce extraneous levels of cognitive demand on the interviewer, and high cognitive demands are related to a variety of negative outcomes (Baumeister, Bratslavsky, Muraven, & Tice, 1998; Merriënboer & Sweller, 2005), such high loads may affect the interviewer's performance and judgments. For example, recent research has shown that when interviewers were focused on other goals in the interview than assessing whether an applicant is the optimal choice to fill the vacancy (such as attracting the applicant, i.e., having a high selling orientation), this negatively affected the validity of the interview (Marr & Cable, 2014). Considered from a dual-process perspective, additional tasks or goals that increase the level of cognitive demand placed on the interviewer may hamper Type 2 processes to adjust first impressions during the interview phase. This process may also drive any positive effects of interview structure (like asking job-related questions and using the same questions to every applicant) on the overall validity of the interview (Dipboye & Johnson, 2013), which can be considered one of the key outcomes of the decision-making stage (post-interview; see further).

Proposition 8b. High cognitive demands placed on the interviewer hampers correction of initial impressions.

4.3. Stage 3: Post-interview and decision making

When making the final evaluation of the applicant, the interviewer disposes of the initial impression and the information that has been gathered and interpreted during the preceding interview stage. Both sources of information are considered in the decision-making process. The goal of the interviewer is to provide an answer to the question whether this applicant is suitable for the job, and in a broader picture interviewers need to decide how this applicant relates to other applicants for the job.

4.3.1. Type 1 processes

As mentioned, several studies have shown that initial impressions contaminate the final evaluation in interviews (e.g., Levashina et al., 2014). In dual-process theory, and in the tradition of research on heuristics and biases, such contamination is found in the anchoring bias, one of the well-known heuristics introduced by Tversky and Kahneman (1974). This heuristic and corresponding bias proposes that in a certain decision making procedure (like interviews), salient information is cued first (like initial impressions), and subsequently serves as an 'anchor' for outcomes or final decisions. The anchoring effect then refers to a forecaster's reluctance to deviate from a given 'anchor value' in making judgments (Eroglu & Croxton, 2010). This heuristic appears to be prevalent throughout diverse human decision processes and had been affected decisions in a variety of decision-making tasks in organizational settings and beyond (like legal judgments and negotiations; Chapman & Bornstein, 1996; Chapman & Johnson, 2002; Ritov, 1996). We consider this heuristic as a crucial component of the post-interview and decision-making stage.

In terms of Chapman and Johnson (2002), the interview can also be defined as an anchoring procedure as there are cues (like the applicant's stigma) that affect the interviewer's initial impression prior to the final judgment which is in line with the dual-process of decision making proposed by Tversky and Kahneman (1974). In line with the current dominant view of the anchoring paradigm

(i.e., confirmatory hypothesis testing; see Chapman & Johnson, 2002; Mussweiler & Strack, 1999), interviewers may search for ways in which their judgment is similar to the anchor value, and thus activates aspects of the applicant that are consistent with their first impressions.

The concept of anchoring has been already suggested as a potential source of bias in the interview literature (Kataoka, Latham, & Whyte, 1997). Moreover, Dipboye's (1982) model of self-fulfilling prophecies in interviews also suggests that interviewers' pre-interview evaluation will influence how they conduct the interview, what questions they ask, how they interpret applicants' performance, and ultimately their final decision. Multiple studies have provided empirical evidence for the relationship between interviewers' initial impressions and final decision (e.g., Dougherty et al., 1994; Macan & Dipboye, 1990; Stewart et al., 2008). Dual-process theory helps us highlighting the cognitive mechanisms responsible for such effects: the first impression (which is likely to be influenced by the presence of a stigma) serves as an anchor in the final evaluation and due to selective accessibility mechanisms, the interviewer may be unable to deviate far from that anchor (Chapman & Johnson, 2002; Hogarth & Einhorn, 1992).

Proposition 9. When making final evaluations of (stigmatized) applicants, interviewers will build on initial impressions that anchor their final evaluation.

4.3.2. Type 2 processes

With their analytic reasoning capacity, Type 2 processes are considered to drive the final evaluation process. However, dual-process theory proposes that this is done through intervening and improving heuristic responses of Type 1 processes (Evans, 2008; Kahneman & Frederick, 2002). In other words, the gathered information is evaluated, and Type 2 processes decide whether this information provides sufficient reason to intervene with the heuristic answer, and if so make the necessary adjustments. Hence, similar to information gathering and interpretation, the degree to which Type 2 processes can and will intervene in making the final judgment about the applicant, is dependent on the strength of the initial impression.

Note that the initial impression of non-stigmatized applicants is also a heuristic response. However, this response is associated with a relatively weak 'feeling of rightness', as this impression has been generated slowly due to the absence of strong stigmatizing cues. Hence, when making the final evaluation, the gathered information provides sufficient reason for Type 2 processes to intervene and adjust these impressions. Building on the initial impression and the information gathered during the interview stage, Type 2 processes will be able to produce an alternative judgment. When the interviewer then needs to choose between the initial impression or the alternative judgment proposed by Type 2 processes, the latter is more likely to be accepted as the initial impression is associated with a weak 'feeling of rightness'.

Proposition 10a. When making final evaluations of non-stigmatized applicants, interviewers will build on initial impressions and adjust initial impressions in accordance to the interpretation of the information exchanged during the interview stage.

When the initial impressions have been formed on the basis of a stigmatizing applicant factor, the interviewer may possess a strong 'feeling of rightness', that this impression is correct. Making adjustments to heuristic responses is considered to be effortful, and can therefore only succeed when the interviewer possesses sufficient cognitive resources to do so (Type 2 processes; Baumeister et al., 1998; De Neys, 2006; Epley & Gilovich, 2006; Muraven & Baumeister, 2000). Indeed, interviewing stigmatized applicants has been found to reduce or deplete the available cognitive resources (Madera & Hebl, 2012), resulting in a decreased ability to adjust the anchor, or resist the appeal of the initial impression, when making the final evaluation (Baumeister et al., 1998). Hence, the limited ability to make adjustments could drive the bias found in interview evaluations of stigmatized applicants.

Type 2 processes may attempt to alter the response (Bargh, 2007; Thompson, 2009), for example by evaluating gathered information, which is retrieved from memory by Type 1 processes, and produce an alternative judgment to the initial impression. However, when interviewing stigmatized applicants, the alternative judgment proposed by Type 2 processes is likely constructed from biased information (e.g., responses to interview questions attempting to confirm the initial impression). The final judgment will thus not sufficiently deviate from the initial impression to trigger the efforts necessary to make the adjustments. Similarly, the alternative judgment can be regarded as less compelling than the initial impression, or the strength of the initial impression initiates doubt in the alternative judgment proposed by Type 2 processes, resulting in an output which is consistent with the initial impression. This explains why Type 2 processes might be active, but still fail to correct initial impressions and still result in biased judgments about stigmatized applicants.

Proposition 10b. When making final evaluations of stigmatized applicants, interviewers will build on initial impressions but fail to adjust initial impressions in accordance to the interpretation of the information exchanged during the interview stage.

4.3.3. Situational & interviewer factors

4.3.3.1. Interview structure and format

Interview structure components may affect anchoring and adjustment. Various components of interview structure (e.g., Campion et al., 1997; Levashina et al., 2014) are likely to moderate the importance of Type 1 and Type 2 processes in interviewers' final decisions. For instance, highly-structured interviews require interviewers to ask a set of prepared questions to all applicants, to take

behavioral but non-judgmental notes of applicants' responses, and to evaluate each response on standardized rating scales. By doing so, interviewers are likely to gather more comprehensive, standardized, and comparable information about all applicants (including stigmatized ones). This reduces the likelihood of relying only on Type 1 processes (e.g., anchoring) to make a final decision and rather provides sufficient reason for Type 2 processes to intervene and adjust these impressions. For instance, Kutcher and Bragger (2004) showed lower ratings for equally qualified overweight applicants to normal weight applicants unless behaviorally-based evaluations were used. Moreover, note-taking has been described as a potential source of interview validity (Burnett, Fan, Motowidlo, & DeGroot, 1998). Although note-taking may be resource-intensive during the interview stage, notes may relieve interviewers from relying only on memory when making decisions (Dipboye et al., 2012; Macan, 2009), thus liberating cognitive resources to engage in more complex Type 2 adjustments in this stage.

The only study we know that considers anchoring in the job interview comes from Kataoka and colleagues (1997). In this study, 190 MBA students rated mock candidates in three highly structured, video-taped interview conditions, namely conventional structured, behavioral pattern and, situational interviews. Right before participants evaluated the applicants, participants were asked whether the applicant's answer could be rated '1' (low anchor) or '5' (high anchor); in the control condition, participants did not receive any anchor. Findings showed the resistance of highly structured interviews to bias due to reliance on anchoring. Although candidate ratings were biased in the direction of the anchor, regardless of the interview technique used, bias was significantly less when the situational interview was used as compared to the conventional structured interview and the patterned behavior description interview. In this study, anchoring was manipulated through the scoring guide, which is informative to the interviewer's task of rating the applicant. Many other cues (like applicant stigma) may show up much earlier (e.g., pre-interview) and might be less informative to applicant rating, but equally serve as anchor and affect final applicant ratings.

Proposition 11a. More structured interviews will allow interviewers to gather more job-related information about applicants and thus to engage in more Type 2 adjustments when making hiring decisions.

4.3.3.2. Interviewer characteristics

Interviewers' personality may also affect one's susceptibility to anchoring or adjustment of initial impressions. McElroy and Dowd (2007) showed that individuals high in openness-to-experience (i.e., a trait reflecting individuals' propensity to adjust one's beliefs; Costa & McCrae, 1985) were more influenced by external anchoring cues. They suggested the possibility that low openness people would be more influenced by internally generated information compared to externally generated 'anchors' (like 'stigma'). Although McElroy and Dowd (2007) did not find any effects from the other Big Five personality factors, Eroglu and Croxton (2010) found agreeableness and conscientiousness to relate positively to anchoring effects (with those high in agreeableness and conscientiousness being more susceptible to anchoring bias); extroversion however related negatively to anchoring effects (with those high in extroversion, being less affected by the anchoring effect). As regards cognitive ability, some mixed effects have been found, with some studies indicating individuals with high cognitive ability being less susceptible to anchoring (Bergman, Ellingsen, Johannesson, & Svensson, 2010) whereas other studies indicating no effects of cognitive ability (Oechssler, Roider & Schmitz, 2009). Finally, experience seemed to have a limited impact, as anchoring influences both novices and experts to the same extent (Englich, Mussweiler & Strack, 2006; Englich, & Soder, 2009; Northcraft, & Neale, 1987). As shown by Dipboye and Jackson (1999) and Gehrlein et al. (1993), interviewer experience did not lead to more valid judgments, perhaps because of the persistent effect of anchoring/Type 1 processes (cf. supra). Note, however, that overall relatively little is known about the interviewers' individual difference factors and propensity to anchoring in interview judgments.

Indeed, several studies investigated correlates of Type 1/Type 2 processes on final judgments in both lab and information-rich, real world settings, but few considered decision making in the job interview (see Kataoka et al., 1997 and Lee, Pitesa, Pillutla, & Thau, 2015, for exceptions). Recently, in a simulated job interview setting, Lee et al. (2015) showed how interviewers' personal goals (perceived cooperation or competitiveness) affected selection decisions regarding stigmatized applicants. Decision makers positively evaluated stigmatized candidates (e.g., older applicants; ethnic minority applicants) that fitted job stereotypes and that were seen as *more instrumental to their personal goals*, hence showing Type 2 processes to adjust initial impressions based on decision makers' goals and motivation. For instance, when White majority males had to recruit an applicant for a job requiring intellectual competencies, the stereotypical perception of greater intellectual competence of the Asian candidate (as compared to non-Asian candidates) led to a more positive selection outcome when they expected *to cooperate* with the Asian minority candidate but not when White male decision makers expected *to compete* with the Asian minority candidate.

Although in a different context (i.e., negotiation), Galinsky and Mussweiler (2001) also showed decision makers' *perspective-taking* to counter anchoring effects. Taking the perspective of an out-group member (e.g., a stigmatized individual) strengthens associations between that out-group and the self, thus enabling positive automatic self-evaluations to be transferred to that out-group (Todd & Burgmer, 2013). Applied to the job interview setting, then, considering different points of view (e.g., the applicant's perspective) might increase interviewers' awareness of valuable information that otherwise would have been ignored and led Type 1 processes to affect judgmental outcomes.

Proposition 11b. Interviewers' extraversion, instrumental goals, and perspective-taking will be negatively associated with Type 1 anchoring effects when making decisions about stigmatized applicants, whereas openness-to-experience, agreeableness and conscientiousness will be positively associated with anchoring effects.

4.3.3.3. Organizational factors and policies

In sharp contrast to interview structure, stressors like time pressure or financial constraints may influence interviewers' ability to collect and use additional information to correct initial judgments (Type 2). For instance, individuals facing more time pressure are more prone to anchoring effects (Kruglanski & Freund, 1983). When pressured by time, people have a higher need for cognitive closure, have less cognitive resources available, and thus rely more heavily on heuristics to make decisions (Type 1 processing; see De Dreu, 2003; Lavie, 2005; Roets, Van Hiel, Cornelis, & Soetens, 2008). Similarly, the amount of stress or pressure that interviewers experience may restrict their ability to adjust initial impressions and may make interviewers more prone to anchoring effects. Time pressure to find suitable candidates could be particularly high, for instance, when hiring in a very tight job market or when working for a temporary work agency.

Proposition 11c. The amount of pressure faced by interviewers will be positively associated with Type 1 anchoring effects when making decisions about stigmatized applicants.

4.3.4. Outcomes

4.3.4.1. Confidence in final judgments

Kahneman (2003a) coined the term 'illusion of validity' which is associated with the growing conviction in one's ability to make valid clinical judgments. One of the observations that inspired Kahneman and colleagues to pursue their work on heuristics and biases was that accuracy of judgments and one's confidence in accuracy of judgments appear to be unrelated (Kahneman, 2003a; Kahneman & Klein, 2009). Research has established that people tend to be overconfident, even in erroneous judgments, a finding that has been replicated in various decision-making domains, such as in eyewitness testimonies (Bradfield, Wells, & Olson, 2002; Dunlosky & Metcalfe, 2009; Klayman, Soll, González-Vallejo, & Barlas, 1999; Koriat, 2012; Shynkaruk & Thompson, 2006; Wells & Olson, 2003).

Although there has been much work on confidence in judgment making, drawing the same parallel in job interview decisions has largely been ignored (for rare exceptions, see Highhouse, 2002; 2008). When intuitive Type 1 judgments, such as the initial impression, are constructed slowly, they will be associated with a relatively weak 'feeling of rightness' allowing the interviewer to adjust his/her judgment. Hence, adjustments made in the interview phase are likely to increase the interviewer's confidence to a baseline level. However, when the initial impression is constructed on the basis of a stigmatizing applicant feature, judgments will be associated with a 'strong feeling of rightness'. Fast, intuitive judgments (based on Type 1 processes) and the associated 'feeling of rightness', will initiate high levels of confidence (Shynkaruk & Thompson, 2006; Thompson et al., 2011; Thompson et al., 2013). This overconfidence may make interviewers resilient to disconfirming information (Sloman, 1996; Thompson, 2009) and may also explain how initial impressions (e.g., from pre-interview and rapport building) may spill-over on final evaluations of stigmatized job applicants (Barrick et al., 2010; Barrick et al., 2012).

Proposition 12a. Initial impressions based on stigmatizing applicant features make interviewers highly confident about their final (biased) evaluations.

4.3.4.2. Validity of final judgments

Finally, making accurate decisions about the applicant's job suitability (e.g., person-job fit) is another important outcome of the post-interview phase. It can be expected that judgments and decisions based on Type 1 processes (i.e., instigated by applicants' stigma) instead of Type 2 processes (i.e., instigated by information about applicants' job-related competencies) would jeopardize the interview's construct validity and – as a consequence- its predictive validity. This process corroborates what Dipboye and Johnson (2013) considered as 'confirmatory information processing', i.e., when interviewers seek information that is consistent with their initial, invalid impressions (similar to anchoring). However, when Type 2 processes are able to correct Type 1 processes, interviewers would rather engage in 'disconfirmatory information processing', i.e., by looking for information that is inconsistent with initial impressions and by reconsidering one's initial impressions in final judgments (similar to adjustment). And although diagnostic information processing (i.e., searching and considering only job-related information) is the preferred interview strategy that should lead to the most valid interview judgments, we agree with Dipboye and Johnson (2013) that both confirmatory and disconfirmatory processing can still be useful for interview validity. This is the case when initial impressions are valid in case of confirmatory processing (e.g., as based on valid test scores or other types of valid pre-interview information) or invalid in case of disconfirmatory processing (e.g., as based on job-irrelevant, and/or stigma-related information).

Proposition 12b. Initial impressions based on stigmatizing applicant features threaten interview validity.

5. Discussion

The dual-process theory has been suggested to be a valuable theory to understand stigma (Pryor et al., 2004) as well as interviewer judgments (Dipboye et al., 2012) but has rarely been applied as a conceptual approach to explain interviewer decision making and interview bias. Below we discuss implications for theory, further research, and practice.

5.1. Theoretical implications

Building on the dual-process theory, theoretical grounding is used to understand the influence of the applicant's visible stigma on interviewers' information processing throughout the various interview stages. By outlining the specific role of dual processing mechanisms and situational/individual factors in each of the interview stages, we first of all aimed to provide a better understanding of *how* stigmatizing applicant characteristics might influence interviewer decision making throughout the job interview, instead of merely describing bias as an interview outcome which is the typical approach in the interview literature.

The dual-process perspective further adds to the literature by taking into account *interviewers' fallacies and irrationalities*, which normally occur beyond conscious control. For a long time, interviewer decision making has been approached from a rather rationalist perspective as interviewers were expected to base their evaluations only on job-relevant information exchanged during the interview stage and any other source of information was considered as error variance in judgments. However, findings that the interviewer's initial impression of the applicant predicts interview outcomes challenge the rationalist perspective. The dual-process approach shows that both deliberate (rational) and implicit (automatic) processes affect interview judgment in a complex way. In doing so, a dual-process approach fits well with a social process perspective on selection (Dipboye et al., 2012).

Typically, decision making is considered as the final stage and outcome of the job interview. Yet, according to a dual-process perspective, decision making is above all a *dynamic process* that develops and spans across the different interview stages and results in interview decisions. The focus on initial impressions and reactions to stigmatized candidates (such as initial fear or disgust), for instance, may prevail more strongly during the first stages of the interview but may gradually shift towards less associative/reflexive reactions (Type 1) and more rational evaluations of candidates' fit with the job opening (Type 2) in subsequent interview stages. Up till now, such a dynamic perspective has not been considered much and may contribute to the interview literature.

Note that the Type 1/Type 2 processes described above are primarily pertinent for one-on-one, face-to-face interviews. However, organization may use other forms of interview, especially when interviews are used to quickly screen applicants or when interviewing out-of-town applicants. For instance, phone interviews tend to reduce the impact of attractiveness on applicant evaluation (Straus et al., 2001). One reason is that phone interviews (and to some extent video interviews) may limit the visibility of visual cues (e.g., age, attractiveness) or eliminate behavioral cues (e.g., handshake), which would decrease Type 1 processes triggered by the stigma for instance. The Type 1/Type 2 processes described above will apply mostly to *initial* interviews. In situations where the organization interviews the same applicant several times, and in *final* interviews the applicant's stigma is already known and might have been 'accepted' (probably through Type 2 corrections in earlier stages of the selection process).

Using the dual-process theory to understand interview decision making, however, does not exclude other (cognitive) theories. Findings from different but related literature, such as 'impression formation' theories (Fiske et al., 1999) seem to fit-in well. Further research, therefore, could expand the model by including propositions from other, related theoretical models (e.g., motivational effects). The next section discusses further research opportunities.

5.2. Research opportunities

A number of the mechanisms and assumptions from dual-process theory have already been tested in various judgment and decision-making contexts, including interviews (e.g., police officers collecting eyewitness testimonies or interrogating suspects). Many of those studies (e.g., Alison et al., 2008) used simulated interview settings, conducted either inside or outside the lab. However, dual-process theory has seldom been used or tested in the employment interview (e.g., Swann & Ely, 1984; Kataoka et al., 1997). We suggest that future studies could empirically test the research propositions derived from our framework, in order to better understand how (stigmatized and non-stigmatized) job applicants are evaluated by interviewers. Ideally, those studies should rely both on fundamental research designs (i.e., experimental studies to better understand the cognitive mechanisms at play) and high-stake situations (i.e., field studies to test the actual effects in real selection contexts and to highlight potential boundary conditions).

For instance, in the pre-interview stage, future studies could empirically examine how fast interviewers form an initial impression of stigmatized vs. non-stigmatized applicants (Proposition 1a, 1b), the strength of their *feeling 'feeling of rightness'* (Proposition 4b), or behavioral reactions to the applicant (Proposition 2). In a lab setting, this could be tested by presenting participants with videos of (stigmatized vs. non-stigmatized) applicants' first minutes of interaction with an interviewer and asking them to stop the video and rate the applicant (and confidence in their judgment) as soon as they have formed a reliable initial impression. Behavioral reactions could be measured by video-recording the participants performing that task and coding their (impulse control) non-verbal behaviors (or more precisely with eye-tracking technology, see Madera & Hebl, 2012) while one could control for situation and individual factors (like pre-interview information or interviewers' prejudiced attitudes; Proposition 3a, 3b).

In the interview stage, studies could examine interviewers' reliance on confirmatory information gathering vs. updating processes (Propositions 5, 6a, 6b and 8a, 8b). As a first step, experimental studies could compare the questions asked by interviewers, notes taken, duration of the interview stage, and ultimately applicant evaluation in unstructured mock interviews where stigmatized vs. non-stigmatized applicants are instructed to behave in a consistent way. Field studies could subsequently examine similar factors by videotaping and coding high-stakes interviews, controlling for applicants' response quality. Additionally, one could control for situational and interviewer factors like interviewers' need for cognitive closure, experience, and organizational policies (Proposition 7b, 7c).

Finally, studies could examine anchoring and adjustment processes in the decision-making stage (Propositions 9, 10a, 10b and 12a, 12b). Once again starting with an experimental approach, one could measure participants' initial impression, manipulate the quality of responses provided by the applicant (with videos or instructed actors), and measure final evaluations of applicants (and

confidence) to test how robust initial impressions of stigmatized vs. non-stigmatized applicants are, while controlling for situational and individual factors (Proposition 11a, 11b, 11c).

In addition, future research could examine a basic assumption in dual-process theory (Pryor et al., 1999; 2004) by testing whether the Type 1 processes are faster and their effects stronger when the applicant has a controllable (e.g., pregnancy, tattoos) vs. uncontrollable (e.g., ethnicity, gender) stigma. Both experimental and field studies could also empirically evaluate the impact of interview structure or format, interviewers' characteristics, and organizational characteristics on Type 1/Type 2 processes (Propositions 3a, 3b, 3c, 7a, 7b, 7c, 11a, 11b and 11c). Interviewers' characteristics are a prominent example. Posthuma et al. (2002) showed that 42% of all interview-related research has focused on interview bias, whereas only 1% of research emphasized interviewer characteristics. Thus, studies could investigate how interviewers' attitudes and prejudice towards stigmas, interviewing experience, or personality traits impact the speed of their initial impressions of stigmatized applicants, quality of information gathering, and tendency to anchoring or lack of adjustment.

Finally, future studies could also apply some of the concepts from our dual-process framework to job interview research beyond applicant stigmas. One example is interviewers' reliance on intuition or *gut feeling* to assess applicants. Although authors have discussed reasons why interviewers make intuition-based judgments (e.g., Highhouse, 2008), dual-process theory offers explanations for the mechanisms at play (i.e., Type 1 processes). Future research could thus examine if intuition-based judgments are based on reflexive heuristics and anchoring. Another example is the research on interviewers' accuracy at detecting applicant faking in interviews, confidence in their judgment, and impact of such judgments on applicant evaluation (e.g., Roulin et al., 2015). Interviewers' failed attempts to use gathered information to adjust their evaluation of applicants could be interpreted in terms of fallible Type 2 processes. And, research could further examine what cognitive processes are at play. A final example is the research on the construct validity of the interview. Research in this area is still scarce (Hamdani, Valcea, & Buckley, 2014) and represents one of the greatest challenges for further research (Dipboye & Johnson, 2013). We suggest that the dual-process model may also be a useful theoretical perspective to understand and improve the interview's construct validity, for instance by examining biased heuristics or anchoring and adjustments by interviewers.

5.3. Practical implications

From a theoretical perspective, we have outlined how stigma might affect interview judgments and decision making and compromise interview validity. However, the dual-process perspective might also inspire practitioners to redesign the interview to reduce the risk of biased decision making. As bias is rather a process than an outcome, such interventions should be tailored to the different interview stages. When applicants' stigmatizing features are of a visual nature (e.g., obesity, physical disability), one could remove stigmatizing cues from the interviewers' visibility and awareness. This is particularly relevant during the initial impression formation process. For instance, in the pre-interview stage, anonymous resume-screening could be advocated in those countries where it is common to attach pictures to resumes (e.g., like in many European countries; Krause, Rinne, & Zimmermann, 2012). Also, applicants could be recommended to block pictures and/or personal video's on their social media accounts in order to prevent interviewers' biased impression. Interviewers might also be made aware of potential pitfalls when screening stigmatized applicants using new multi-media based recruitment tools, like video resumes. Video resumes are short pre-recorded video-taped messages (lasting 1–2 min) in which applicants present themselves to potential employers. More individualized information is provided in video resumes compared to paper resumes, which may limit effects of initial impressions (Type 1 processing). However, it is still much debated how vulnerable video resumes are for biased judgments (Hiemstra & Derous, 2015). Given that structure might allow Type 2 processes to correct initial impressions, alternatively, interviewers may be recommended to use structured checklists like competency and experience checklists or testimonials during the pre-interview stage (Derous & Ryan, 2014).

In the interview stage, any visual contact between applicants and interviewers during rapport building could also be limited. Yet, because the interview is also considered as a social process (Dipboye et al., 2012), we caution against the proposition to entirely eliminate rapport building in favor of interview validity (Levashina et al., 2014). Instead we suggest those interview stages that are most sensitive to Type 1 processing could be redesigned (Dipboye et al., 2012). For instance, Buijsrogge et al. (2014) recently suggested to develop different types of standardized rapport building procedures, such as a blind rapport building in which applicants and interviewers are visually separated (e.g., using telephone and computer-mediated interviews). This resembles in a way the blind auditions musicians do when they apply for jobs (e.g., in orchestras like the YouTube Symphony orchestra).

Finally, to facilitate unbiased decision making, the use of structure throughout the interview is recommended. For instance, perceived similarity is an important factor in interviewers' evaluation of applicants (e.g., Kristof-Brown et al., 2002), although the effect seems to be weaker in highly-structured interviews (Sacco et al., 2003). Structuring may facilitate Type 2 processes by allowing interviewers to gather additional data in a standardized way about both stigmatized and non-stigmatized applicants and adjust initial impressions. And although interviewers (Chen, Tsai, & Hu, 2008) and applicants (e.g., Conway & Peneno, 1999; Steiner, 2012) typically have less favorable reactions towards high structured interviews, interview structure can significantly reduce the likelihood of relying on Type 1 processes (like anchoring) when interviewers make final decision about applicants.

5.4. Conclusion

In sum, we present a theoretical framework of interview bias that draws upon dual-process theory. This framework proposes that the origin of bias lies in fast and frugal judgments made during the initial impression formation process, and subsequently affects the

interviewer during all stages of the interview process. Framing the interview within dual-process theory can spur new research directions, such as a focus on the interviewer and the decision-making process, and can challenge researchers to design intervention methods that facilitate objectivity in the job interview.

References

Abelson, R.P. (1981). Psychological status of the script concept. *American Psychologist, 36*, 715–729. http://dx.doi.org/10.1037/0003-066×.36.7.715.

Agerström, J., & Rooth, D. -O. (2011). The role of automatic obesity stereotypes in real hiring discrimination. *Journal of Applied Psychology, 96*, 790–805. http://dx.doi.org/10.1037/a0021594.

Alison, L., Kebbell, M., & Leung, J. (2008). A facet analysis of police officers use of suspect-interviewing strategies and their discomfort with ambiguity. *Applied Cognitive Psychology, 22*, 1072–1087. http://dx.doi.org/10.1002/acp.1408.

Amodio, D.M., & Devine, P.G. (2006). Stereotyping and evaluation in implicit race bias: Evidence for independent constructs and unique effects on behavior. *Journal of Personality and Social Psychology, 91*, 652–661. http://dx.doi.org/10.1037/0022-3514.91.4.652.

Arbuthnott, K.D., Arbuthonott, D.W., & Thompson, V.A. (2005). *The mind in therapy: Cognitive science for practice.* Mahwah, NJ: Lawrence Erlbaum Associates.

Arvey, R.D., & Campion, J.E. (1982). The employment interview: A summary and review of recent research. *Personnel Psychology, 35*, 281–322 (Retrieved from: http://down.cenet.org.cn/upfile/47/2005101233050183.pdf).

Avery, D.R. (2011). Support for diversity in organizations: A theoretical exploration of its origins and offshoots. *Organizational Psychology Review, 1*, 239–256. http://dx.doi.org/10.1177/2041386611402115.

Bangerter, A., Roulin, N., & König, C.J. (2012). Personnel selection as a signaling game. *Journal of Applied Psychology, 97*, 719–738. http://dx.doi.org/10.1037/a0026078.

Bar, M., Neta, M., & Linz, H. (2006). Very first impressions. *Emotion, 6*, 269–278. http://dx.doi.org/10.1037/1528-3542.6.2.269.

Bargh, J.A. (2007). Social psychological approaches to consciousness. In P.D. Zelazo, M. Moscovitch, & E. Thompson (Eds.), *The cambridge handbook of consciousness* (pp. 555–569). New York: Cambridge University Press.

Barrick, M.R., Dustin, S.L., Giluk, T.L., Stewart, G.L., Shaffer, J.A., & Swider, B.W. (2012). Candidate characteristics driving initial impressions during rapport building: Implications for employment interview validity. *Journal of Occupational and Organizational Psychology, 85*, 330–352. http://dx.doi.org/10.1111/j.2044-8325.2011.02036.

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*, 9–30. http://dx.doi.org/10.1111/1468-2389.00160.

Barrick, M.R., Shaffer, J.A., & DeGrassi, S.W. (2009). What you see may not be what you get: Relationships among self-presentation tactics and ratings of interview and job performance. *Journal of Applied Psychology, 94*, 1394–1411. http://dx.doi.org/10.1037/a0016532.

Barrick, M.R., Swider, B.W., & Stewart, G.L. (2010). Initial evaluations in the interview: Relationships with subsequent interviewer evaluations and employment offers. *Journal of Applied Psychology, 95*, 1163–1172. http://dx.doi.org/10.1037/a0019918.

Baumeister, R.F., Bratslavsky, E., Muraven, M., & Tice, D.M. (1998). Ego depletion: Is the active self a limited resource? *Journal of Personality and Social Psychology, 74*, 1252–1265. http://dx.doi.org/10.1037/0022-3514.74.5.1252.

Bell, M.P., & Mclaughlin, M.E. (2006). Outcomes of appearance and obesity on organisations. In A.M. Konrad, P. Prasad, & J.K. Pringle (Eds.), *Handbook of workforce diversity* (pp. 455–474). London: Sage.

Bergman, O., Ellingsen, T., Johannesson, M., & Svensson, C. (2010). Anchoring and cognitive ability. *Economics Letters, 107*, 66–68. http://dx.doi.org/10.1016/j.econlet.2009.12.028.

Blascovich, J., Mendes, W.B., Hunter, S.B., Lickel, B., & Kowai-Bell, N. (2001). Perceiver threat in social interactions with stigmatized others. *Journal of Personality and Social Psychology, 80*, 253–267. http://dx.doi.org/10.1037//0022-3514.80.2.253.

Bolino, M.C., Kacmar, K.M., Turnley, W.H., & Gilstrap, J.B. (2008). A multi-level review of impression management motives and behaviors. *Journal of Management, 34*, 1080–1109. http://dx.doi.org/10.1177/0149206308324325.

Bos, A.E.R., Pryor, J.B., Reeder, G.D., & Stutterheim, S.E. (2013). Stigma: Advances in theory and research. *Basic and Applied Social Psychology, 35*, 1–9. http://dx.doi.org/10.1080/01973533.2012.746147.

Bozeman, D.P., & Kacmar, K.M. (1997). A cybernetic model of impression management processes in organizations. *Organizational Behavior and Human Decision Processes, 69*, 9–30. http://dx.doi.org/10.1006/obhd.1996.2669.

Bradfield, A.L., Wells, G.L., & Olson, E.A. (2002). The damaging effect of confirming feedback on the relation between eyewitness certainty and identification accuracy. *Journal of Applied Psychology, 87*, 112–120. http://dx.doi.org/10.1037/0021-9010.87.1.112.

Brewer, M.B., Weber, J.G., & Carini, B. (1995). Person memory in intergroup contexts: Categorization versus individuation. *Journal of Personality and Social Psychology, 69*, 29–40. http://dx.doi.org/10.1037/0022-3514.69.1.29.

Bruner, J.S. (1957). On perceptual readiness. *Psychological Review, 64*, 123–152. http://dx.doi.org/10.1037/h0043805.

Buijsrogge, A., Derous, E., & Duyck, W. (2012). Why your port-wine stain isn't hired: Stigmatization during interviews. *Poster presented at the 27th conference of the society of industrial and organizational psychology, San Diego, California.*

Buijsrogge, A., Derous, E., & Duyck, W. (2014). Introducing the partially-blind job interview as a novel procedure to eliminate interview discrimination. *Paper presented at the 28th international conference of applied psychology, Paris, France.*

Burgess, M., & Clark, L. (2010). Do the "savage origins" of tattoos cast a prejudicial shadow on contemporary tattooed individuals? *Journal of Applied Social Psychology, 40*, 746–764. http://dx.doi.org/10.1111/j.1559-1816.2010.00596.x.

Burnett, J.R., Fan, C., Motowidlo, S.J., & DeGroot, T. (1998). Interview notes and validity. *Personnel Psychology, 51*, 375–396. http://dx.doi.org/10.1111/j.1744-6570.1998.tb00730.x.

Byrne, D. (1971). *The attraction paradigm.* New York: Academic Press.

Cable, D.M., & Judge, T.A. (1997). Interviewers' perceptions of person-organization fit and organizational selection decisions. *Journal of Applied Psychology, 82*, 546–561. http://dx.doi.org/10.1037/0021-9010.82.4.546.

Campion, M.A., Palmer, D.K., & Campion, J.E. (1997). A review of structure in the selection interview. *Personnel Psychology, 50*, 655–702. http://dx.doi.org/10.1111/j.1744-6570.1997.tb00709.x.

Chaiken, S., & Trope, Y. (1999). *Dual-process models in social psychology.* New York: Guilford.

Chapman, D.S., & Zweig, D.I. (2005). Developing a nomological network for interview structure: Antecedents and consequences of the structured selection interview. *Personnel Psychology, 58*, 673–702. http://dx.doi.org/10.1111/j.1744-6570.2005.00516.x.

Chapman, G.B., & Bornstein, B.H. (1996). The more you ask, the more you get: Anchoring in personal injury verdicts. *Applied Cognitive Psychology, 10*, 519–540. http://dx.doi.org/10.1002/(SICI)1099-0720(199612)10:6%3C519::AID-ACP417%3E3.0.CO;2–5/pdf.

Chapman, G.B., & Johnson, E.J. (2002). Incorporating the irrelevant: Anchors in judgments of belief and value. In T. Gilovich, D. Griffin, & D. Kahneman (Eds.), *Heuristics and biases: The psychology of intuitive judgment* (pp. 120–138). New York: Cambridge University Press.

Chen, S., & Chaiken, S. (1999). The heuristic-systematic model in its broader context. In S. Chaiken, & Y. Trope (Eds.), *Dual-process theories in social psychology* (pp. 73–96). New York: Guilford Press.

Chen, Y., Tsai, W., & Hu, C. (2008). The influences of interviewer-related and situational factors on interviewer reactions to high structured job interviews. *International Journal of Human Resource Management, 19*, 1056–1071. http://dx.doi.org/10.1080/09585190802051345.

Conway, J.M., & Peneno, G.M. (1999). Comparing structured interview question types: Construct validity and applicant reactions. *Journal of Business and Psychology, 13*, 485–506 (Retrieved from: http://link.springer.com/article/10.1023/A:1022914803347).

Cortes, K., Kammrath, L.K., Scholer, A.A., & Peetz, J. (2013). Self-regulating the effortful "social dos". *Journal of Personality and Social Psychology, 106*, 380–397. http://dx.doi.org/10.1037/a0035188.

Costa, J., & McCrae, R.R. (1985). *The NEO personality inventory manual.* Odessa, Fl.: Psychological Assesssment.

Crocker, J., Major, B., & Steele, C. (1998). Social stigma. In D.T. Gilbert, S.T. Fiske, & G. Lindzey (Eds.), (4th ed.). *The handbook of social psychology, Vols. 1 and 2.* (pp. 504–553). New York : McGraw-Hill.

Dalal, D.K., Diab, D.L., & Tindale, R.S. (2015). I heard that....: Do rumors affect hiring decisions? *International Journal of Selection and Assessment*, *23*, 224–236. http://dx. doi.org/10.1111/ijsa.12110.

De Dreu, C.K. (2003). Time pressure and closing of the mind in negotiation. *Organizational Behavior and Human Decision Processes*, *91*, 280–295. http://dx.doi.org/10. 1016/S0749-5978(03)00022-0.

DeGroot, T., & Motowidlo, S.J. (1999). Why visual and vocal interview cues can affect interviewers' judgments and predict job performance. *Journal of Applied Psychology*, *84*, 986–993. http://dx.doi.org/10.1037/0021-9010.84.6.986.

DeMello, M. (2000). *Bodies of inscription: A cultural history of the modern tattoo community.* Durham, NC: Duke University Press.

De Neys, W. (2006). Automatic–heuristic and executive–analytic processing during reasoning: Chronometric and dual-task considerations. *The Quarterly Journal of Experimental Psychology*, *59*, 1070–1100. http://dx.doi.org/10.1080/02724980543000123.

Derous, E., & Ryan, A.M. (2014). By any other name. In U. Klehe, & E.A.J. van Hooft (Eds.), *Handbook of job loss and job search.* Oxford: Oxford University Press (Advance online publication. doi:10.1093/oxfordhb/9780199764921.013.017).

Derous, E., Ryan, A.M., & Nguyen, H. -H. (2012). Multiple categorization in resume screening: examining effects on hiring discrimination against Arab applicants in field and lab settings. *Journal of Organizational Behavior*, *33*, 544–570. http://dx.doi.org/10.1002/job.769.

Deutsch, R., & Strack, F. (2006). Duality models in social psychology: From dual processes to interacting systems. *Psychological Inquiry*, *17*, 166–172. http://dx.doi.org/ 10.1207/s15327965pli1703_2.

Devine, P.G. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology*, *56*, 5–18. http://dx.doi.org/10. 1037/0022-3514.56.1.5.

Dipboye, R.L. (1982). Self-fulfilling prophecies in the selection-recruitment interview. *Academy of Management Review*, *7*, 579–586. http://dx.doi.org/10.5465/amr. 1982.4285247.

Dipboye, R.L. (1992). *Selection interviews: process perspectives: College division.* South-Western Publishing Company.

Dipboye, R.L. (2005). Looking the part: Bias against the physically unattractive as discrimination issue. In R.L. Dipboye, & A. Colella (Eds.), *Discrimination at work: The psychological and organizational bases* (pp. 281–301). New Jersey: Lawrence Erlbaum Associates, Inc.

Dipboye, R.L., Arvey, R.D., & Terpstra, D.E. (1977). Sex and physical attractiveness of raters and applicants as determinants of resumé evaluations. *Journal of Applied Psychology*, *62*, 288–294. http://dx.doi.org/10.1037/0021-9010.62.3.288.

Dipboye, R.L., Fromkin, H.L., & Wiback, K. (1975). Relative importance of applicant sex, attractiveness, and scholastic standing in evaluation of job applicant resumes. *Journal of Applied Psychology*, *60*, 39–43. http://dx.doi.org/10.1037/h0076352.

Dipboye, R.L., & Jackson, S.L. (1999). Interviewer experience and expertise effects. In R.W. Eder, & M.M. Harris (Eds.), *The employment interview handbook* (pp. 229–292). Thousand Oaks, CA: Sage.

Dipboye, R.L., & Johnson, S.K. (2013). Understanding and improving employee selection interviews. In K.F. Geisinger, B.A. Bracken, J.F. Carlson, J.I.C. Hansen, N.R. Kuncel, S.P. Reise, & M.C. Rodriguez (Eds.), *APA handbook of testing and assessment in psychology: Test theory and testing and assessment in industrial and organizational psychology, Vol. 1.* (pp. 479–499). Washington, DC, US: American Psychological Association. http://dx.doi.org/10.1037/14047–027.

Dipboye, R.L., & Macan, T.M. (1988). A process view of the selection/recruitment interview. In R.S. Schuler, S.A. Youngblood, & V.L. Huber (Eds.), *Readings in personnel and human resource management* (pp. 217–232). St Paul, MN: West Publishing.

Dipboye, R.L., Macan, T.M., & Shahani-Denning, C. (2012). The selection interview from the interviewer and applicant perspectives: Can't have one without the other. In N. Schmitt (Ed.), *The oxford handbook of personnel assessment and selection* (pp. 323–352). New York: Oxford University Press.

Dougherty, T.W., Turban, D.B., & Callender, J.C. (1994). Confirming first impressions in the employment interview: A field study of interviewer behavior. *Journal of Applied Psychology*, *79*, 659–665. http://dx.doi.org/10.1037/0021-9010.79.5.659.

Dovidio, J.F., Kawakami, K., & Gaertner, S.L. (2002). Implicit and explicit prejudice and interracial interaction. *Journal of Personality and Social Psychology*, *82*, 62–68. http://dx.doi.org/10.1037/0022-3514.82.1.62.

Dovidio, J.F., Kawakami, K., Johnson, C., Johnson, B., & Howard, A. (1997). On the nature of prejudice: Automatic and controlled processes. *Journal of Experimental Social Psychology*, *33*, 510–540. http://dx.doi.org/10.1006/jesp.1997.1331.

Dunlosky, J., & Metcalfe, J. (2009). *Metacognition.* Thousand Oaks, CA.: Sage.

Englich, B., Mussweiler, T., & Strack, F. (2006). Playing dice with criminal sentences: The influence of irrelevant anchors on experts' judicial decision making. *Personality and Social Psychology Bulletin*, *32*, 188–200. http://dx.doi.org/10.1177/0146167205282152.

Englich, B., & Soder, K. (2009). Moody experts — How mood and expertise influence judgmental anchoring. *Judgmental and Decision Making*, *4*(1), 41–50 (Retrieved from http://journal.sjdm.org/vol4.1.html).

Epley, N., & Gilovich, T. (2006). The anchoring-and-adjustment heuristic: Why the adjustments are insufficient. *Psychological Science*, *17*, 311–318. http://dx.doi.org/ 10.1111/j.1467-9280.2006.01704.x.

Eroglu, C., & Croxton, K.L. (2010). Biases in judgmental adjustments of statistical forecasts: The role of individual differences. *International Journal of Forecasting*, *26*, 116–133. http://dx.doi.org/10.1016/j.ijforecast.2009.02.005.

Evans, J.S.B.T. (2003). In two minds: Dual-process accounts of reasoning. *Trends in Cognitive Sciences*, *7*, 454–459. http://dx.doi.org/10.1016/j.tics.2003.08.012.

Evans, J.S.B.T. (2006). The heuristic-analytic theory of reasoning: Extension and evaluation. *Psychonomic Bulletin & Review*, *13*, 378–395. http://dx.doi.org/10.3758/bf03193858.

Evans, J.S.B.T. (2008). Dual-processing accounts of reasoning, judgment, and social cognition. *Annual Review of Psychology*, *59*, 255–278. http://dx.doi.org/10.1146/ annurev.psych.59.103006.093629.

Evans, J.S.B.T., & Over, D.E. (2013). *Rationality and reasoning.* Hove: Psychology Press.

Evans, J.S.B.T., & Stanovich, K.E. (2013). Dual-process theories of higher cognition: Advancing the debate. *Perspectives on Psychological Science*, *8*, 223–241. http://dx. doi.org/10.1177/1745691612460685.

Finkelstein, L.M., Demuth, R.L.F., & Sweeney, D.L. (2007). Bias against overweight job applicants: Further explorations of when and why. *Human Resource Management*, *46*, 203–222. http://dx.doi.org/10.1002/hrm.20157.

Fiske, S.T., Lin, M., & Neuberg, S.L. (1999). The continuum model: Ten years later. In S. Chaiken, & Y. Trope (Eds.), *Dual process theories in social psychology.* (pp. 231–254)The Guilford Press.

Ford, T.E., Gambino, F., Lee, H., Mayo, E., & Ferguson, M.A. (2005). The role of accountability in suppressing managers' preinterview bias against African-American sales job applicants. *Journal of Personal Selling & Sales Management*, *24*, 113–124. http://dx.doi.org/10.1080/08853134.2004.10749023.

Galinsky, A.D., & Mussweiler, T. (2001). First offer as anchors: The role of perspective-taking and negotiator focus. *Journal of Personality and Social Psychology*, *81*, 657–669. http://dx.doi.org/10.1037/0022-3514.81.4.657.

Gangestad, S.W., & Snyder, M. (2000). Self-monitoring: Appraisal and reappraisal. *Psychological Bulletin*, *126*, 530–555. http://dx.doi.org/10.1037/0033-2909.126.4.530.

Gehrlein, T., Dipboye, R., & Shahani, C. (1993). Nontraditional validity calculations and different interviewer experience: Implications for selection interviews. *Educational and Psychological Measurement*, *53*, 457–469. http://dx.doi.org/10.1177/0013164493053002015.

Gilbert, D.T., Pelham, B.W., & Krull, D.S. (1988). On cognitive busyness: When person perceivers meet persons perceived. *Journal of Personality and Social Psychology*, *54*, 733–740. http://dx.doi.org/10.1037/0022-3514.54.5.733.

Gioia, D.A., & Poole, P.P. (1984). Scripts in organizational behavior. *Academy of Management Review*, *9*, 449–459. http://dx.doi.org/10.5465/AMR.1984.4279675.

Goffman, E. (1968). *Stigma: Notes on the management of spoiled identity.* Harmondsworth: Penguin books.

Gonsalkorale, K., Hippel, W.V., Sherman, J.W., & Klauer, K.C. (2009). Bias and regulation of bias in intergroup interactions: Implicit attitudes toward muslims and interaction quality. *Journal of Experimental Social Psychology*, *45*, 161–166. http://dx.doi.org/10.1016/j.jesp.2008.07.022.

Gross, J.J. (2002). Emotion regulation: Affective, cognitive, and social consequences. *Psychophysiology*, *39*, 281–291. http://dx.doi.org/10.1017/s0048577201393198.

Hamdani, M.R., Valcea, S., & Buckley, M.R. (2014). The relentless pursuit of construct validity in the design of employment interviews. *Human Resource Management Review*, *24*, 160–176. http://dx.doi.org/10.1016/j.hrmr.2013.07.002.

Hayes, T.L., & Macan, T.H. (1997). Comparison of the factors influencing interviewer hiring decisions for applicants with and those without disabilities. *Journal of Business and Psychology*, 11, 357–371 (http://link.springer.com/article/10.1007/BF02195899).

Heatherton, T.F., Kleck, R.E., Hebl, M.R., & Hull, J.G. (2003). *The social psychology of stigma.* New York: Guilford Press.

Hebl, M.R., Foster, J.B., Mannix, L.M., & Dovidio, J.F. (2002). Formal and interpersonal discrimination: A field study of bias toward homosexual applicants. *Personality and Social Psychology Bulletin*, 28, 815–825. http://dx.doi.org/10.1177/0146167202289010.

Hebl, M.R., King, E.B., Glick, P., Singletary, S.L., & Kazama, S. (2007). Hostile and benevolent reactions toward pregnant women: Complementary interpersonal punishments and rewards that maintain traditional roles. *Journal of Applied Psychology*, 92, 1499–1511. http://dx.doi.org/10.1037/0021-9010.92.6.1499.

Hebl, M.R., & Kleck, R.E. (2002). Acknowledging one's stigma in the interview setting: Effective strategy or liability? *Journal of Applied Social Psychology*, 32, 223–249. http://dx.doi.org/10.1111/j.1559-1816.2002.tb00214.x.

Hebl, M.R., & Skorinko, J.L. (2005). Acknowledging one's physical disability in the interview: Does "when" make a difference? *Journal of Applied Social Psychology*, 35, 2477–2492. http://dx.doi.org/10.1111/j.1559-1816.2005.tb02111.x.

Hebl, M.R., & Turchin, J.M. (2005). The stigma of obesity: What about men? *Basic and Applied Social Psychology*, 27, 267–275. http://dx.doi.org/10.1207/s15324834basp2703_8.

Heilman, M.E. (1983). Sex bias in work settings: The lack of fit model. *Research in Organizational Behavior*, 5, 269–298 (http://www.journals.elsevier.com/research-in-organizational-behavior/).

Hiemstra, A.M.F., & Derous, E. (2015). Video resumes portrayed: Findings and challenges. In I. Nikolaou, & J.K. Oostrom (Eds.), *Employee recruitment, selection, and assessment: Contemporary issues for theory and practice* (pp. 44–60). Hove East-Sussex, UK: Psychology Press.

Higgins, C.A., & Judge, T.A. (2004). The effect of applicant influence tactics on recruiter perceptions of fit and hiring recommendations: A field study. *Journal of Applied Psychology*, 89, 622–632. http://dx.doi.org/10.1037/0021-9010.89.4.622.

Highhouse, S. (2002). Assessing the candidate as a whole: A historical and critical analysis of individual psychological assessment for personnel decision making. *Personnel Psychology*, 55, 363–396. http://dx.doi.org/10.1111/j.1744-6570.2002.tb00114.x.

Highhouse, S. (2008). Stubborn reliance on intuition and subjectivity in employee selection. *Industrial and Organizational Psychology*, 1, 333–342. http://dx.doi.org/10.1111/j.1754-9434.2008.00058.x.

Hogarth, R.M., & Einhorn, H.J. (1992). Order effects in belief updating: The belief-adjustment model. *Cognitive Psychology*, 24, 1–55. http://dx.doi.org/10.1016/0010-0285(92)90002-J.

Hosoda, M., Stone-Romero, E.F., & Coats, G. (2003). The effects of physical attractiveness on job-related outcomes: A meta-analysis of experimental studies. *Personnel Psychology*, 56, 431–462. http://dx.doi.org/10.1111/j.1744-6570.2003.tb00157.x.

Houston, V., & Bull, R. (1994). Do people avoid sitting next to someone who is facially disfigured? *European Journal of Social Psychology*, 24, 279–284. http://dx.doi.org/10.1002/ejsp.2420240205.

Huffcutt, A.I. (2011). An empirical review of the employment interview. *International Journal of Selection and Assessment*, 19, 62–81. http://dx.doi.org/10.1111/j.1468-2389.2010.00535.x.

Huffcutt, A.I., Conway, J.M., Roth, P.L., & Stone, N.J. (2001). Identification and meta-analytic assessment of psychological constructs measured in employment interviews. *Journal of Applied Psychology*, 86, 897–913. http://dx.doi.org/10.1037//0021-9010.86.5.897.

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, 264–276. http://dx.doi.org/10.1111/ijsa.12036.

Huffcutt, A.I., & Roth, P.L. (1998). Racial group differences in employment interview evaluations. *Journal of Applied Psychology*, 83, 179–189. http://dx.doi.org/10.1037/0021-9010.83.2.179.

Huffcutt, A.I., Van Iddekinge, C.H., & Roth, P.L. (2011). Understanding applicant behavior in employment interviews: A theoretical model of interviewee performance. *Human Resource Management Review*, 21, 353–367. http://dx.doi.org/10.1016/j.hrmr.2011.05.003.

Jonas, E., Schulz-Hardt, S., Frey, D., & Thelen, N. (2001). Confirmation bias in sequential information search after preliminary decisions: An expansion of dissonance theoretical research on selective exposure to information. *Journal of Personality and Social Psychology*, 80, 557–571. http://dx.doi.org/10.1037/0022-3514.80.4.557.

Jones, E.E., Farina, A., Hastorf, A., Markus, H., Miller, D., & Scott, R. (1984). *Social stigma: The psychology of marked relationships.* New York: Freeman.

Jones, K.P., & King, E.B. (2014). Managing concealable stigmas at work: A review and multilevel model. *Journal of Management*, 40, 1466–1494. http://dx.doi.org/10.1177/0149206313515518.

Johnson, S.K., Podratz, K.E., Dipboye, R.L., & Gibbons, E. (2010). Physical attractiveness biases in ratings of employment suitability: Tracking down the "beauty is beastly" effect. *The Journal of Social Psychology*, 150, 301–318. http://dx.doi.org/10.1080/00224540903365414.

Jussim, L.J. (1986). Self-fulfilling prophecies: A theoretical and integrative review. *Psychological Review*, 93, 429–445. http://dx.doi.org/10.1037/0033-295X.93.4.429.

Kahneman, D. (2003a). Autobiography. In T. Frangsmyr (Ed.), *Les Prix Nobel. The Nobel Prizes 2002 [Nobel Prizes 2002].* Stockholm, Sweden: Almqvist & Wiksell International.

Kahneman, D. (2003b). A perspective on judgment and choice: Mapping bounded rationality. *American Psychologist*, 58, 697–720. http://dx.doi.org/10.1037/0003-066×.58.9.697.

Kahneman, D., & Frederick, S. (2002). Representativeness revisited: Attribute substitution in intuitive judgment. In T. Gilovich, D. Griffin, & D. Kahneman (Eds.), *Heuristics and biases* (pp. 49–81). New York: Cambridge University Press.

Kahneman, D., & Klein, G. (2009). Conditions for intuitive expertise: A failure to disagree. *American Psychologist*, 64, 515–526. http://dx.doi.org/10.1037/a0016755.

Kaiser, C.R., & Pratt-Hyatt, J.S. (2009). Distributing prejudice unequally: Do whites direct their prejudice toward strongly identified minorities? *Journal of Personality and Social Psychology*, 96, 432–445. http://dx.doi.org/10.1037/a0012877.

Kataoka, H.C., Latham, G.P., & Whyte, G. (1997). The relative resistance of the situational, patterned behavior, and conventional structured interviews to anchoring effects. *Human Performance*, 10, 47–63. http://dx.doi.org/10.1207/s15327043hup1001_3.

King, E.B., Mendoza, S.A., Madera, J.M., Hebl, M.R., & Knight, J.L. (2006). What's in a name? A multiracial investigation of the role of occupational stereotypes in selection decisions. *Journal of Applied Social Psychology*, 36, 1145–1159. http://dx.doi.org/10.1111/j.0021-9029.2006.00035.x.

(in press) King, E.B., Rogelberg, S.G., Hebl, M.R., Braddy, P.W., Shanock, L.R., Doerer, S.C., & McDowell-Larsen, S. (2015). Waistlines and ratings of executives: Does executive status overcome obesity stigma? *Human Resource Management* http://dx.doi.org/10.1002/hrm.21667.

Klayman, J., Soll, J.B., González-Vallejo, C., & Barlas, S. (1999). Overconfidence: It depends on how, what, and whom you ask. *Organizational Behavior and Human Decision Processes*, 79, 216–247. http://dx.doi.org/10.1006/obhd.1999.2847.

Koriat, A. (2012). The self-consistency model of subjective confidence. *Psychological Review*, 119, 80–113. http://dx.doi.org/10.1037/a0025648.

Krause, A., Rinne, U., & Zimmermann, K. (2012). Anonymous job applications in Europe. *IZA Journal of European Labor Studies*, 1, 1–20. http://dx.doi.org/10.1186/2193-9012-1-5.

Krendl, A.C., Macrae, C.N., Kelley, W.M., Fugelsang, J.A., & Heatherton, T.F. (2006). The good, the bad, and the ugly: An fMRI investigation of the functional anatomic correlates of stigma. *Social Neuroscience*, 1, 5–15. http://dx.doi.org/10.1080/17470910600670579.

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, 27–46. http://dx.doi.org/10.1177/014920630202800103.

Kruglanski, A.W., & Freund, T. (1983). The freezing and unfreezing of lay-inferences: Effects on impressional primacy, ethnic stereotyping, and numerical anchoring. *Journal of Experimental Social Psychology*, 19, 448–468. http://dx.doi.org/10.1016/0022-1031(83)90022-7.

Kruglanski, A.W., & Mayseless, O. (1988). Contextual effects in hypothesis testing: The role of competing alternatives and epistemic motivations. *Social Cognition*, 6, 1–20. http://dx.doi.org/10.1521/soco.1988.6.1.1.

Kruglanski, A.W., & Webster, D.,. M. (1996). Motivated closing of the mind. *Psychological Raeview*, 103, 263–283. http://dx.doi.org/10.1037/0033-295X.103.2.263.

Kurzban, R., & Leary, M.R. (2001). Evolutionary origins of stigmatization: The functions of social exclusion. *Psychological Bulletin*, 127, 187–208. http://dx.doi.org/10.1037/0033-2909.127.2.187.

Kutcher, E.J., & Bragger, J.D. (2004). Selection interviews of overweight job applicants: Can structure reduce the bias? *Journal of Applied Social Psychology*, 34, 1993–2022. http://dx.doi.org/10.1111/j.1559-1816.2004.tb02688.x.

Langer, E.J., Fiske, S.T., Taylor, S.E., & Chanowitz, B. (1976). Stigma, staring, and discomfort: A novel-stimulus hypothesis. *Journal of Experimental Social Psychology*, *12*, 451–463. http://dx.doi.org/10.1016/0022-1031(76)90077-9.

Lavie, N. (2005). Distracted and confused?: Selective attention under load. *Trends in Cognitive Sciences*, *9*, 75–82. http://dx.doi.org/10.1016/j.tics.2004.12.004.

LeDoux, J.E. (1995). Emotion: Clues from the brain. *Annual Review of Psychology*, *46*, 209–235. http://dx.doi.org/10.1146/annurev.ps.46.020195.001233.

Lee, S., Pitesa, M., Pillutla, M., & Thau, S. (2015). When beauty helps and when it hurts: An organizational context model of attractiveness discrimination in selection decisions. *Organizational Behavior and Human Decision Processes*, *128*, 15–28. http://dx.doi.org/10.1016/j.obhdp.2015.02.003.

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. http://dx.doi.org/10.1111/peps.12052.

Liden, R.C., Martin, C.L., & Parsons, C.K. (1993). Interviewer and applicant behaviors in employment interviews. *The Academy of Management Journal*, *36*, 372–386. http://dx.doi.org/10.2307/256527.

Lin, T. -R., Dobbins, G.H., & Farh, J. -L. (1992). Field study of race and age similarity effects on interview ratings in conventional and situational interviews. *Journal of Applied Psychology*, *77*, 262–271. http://dx.doi.org/10.1037/0021-9010.77.3.363.

Lindsey, A., King, E., McCausland, T., Jones, K., & Dunleavy, E. (2013). What we know and don't: Eradicating employment discrimination 50 years after the civil rights act. *Industrial and Organizational Psychology*, *6*, 391–413. http://dx.doi.org/10.1111/iops.12075.

Lord, C.G., Ross, L., & Lepper, M.R. (1979). Biased assimilation and attitude polarization: The effects of prior theories on subsequently considered evidence. *Journal of Personality and Social Psychology*, *37*, 2098–2109. http://dx.doi.org/10.1037/0022-3514.37.11.2098.

Lord, R.G., & Kernan, M.C. (1987). Scripts as determinants of purposeful behavior in organizations. *Academy of Management Review*, *12*, 265–277. http://dx.doi.org/10.5465/amr.1987.4307831.

Macan, T. (2009). The employment interview: A review of current studies and directions for future research. *Human Resource Management Review*, *19*, 203–218. http://dx.doi.org/10.1016/j.hrmr.2009.03.006.

Macan, T., & Dipboye, R.L. (1988). The effects of interviewers' initial impressions on information gathering. *Organizational Behavior and Human Decision Processes*, *42*, 364–387. http://dx.doi.org/10.1016/0749-5978(88)90006-4.

Macan, T., & Dipboye, R.L. (1990). The relationship of interviewers' preinterview impressions to selection and recruitment outcomes. *Personnel Psychology*, *43*, 745–768. http://dx.doi.org/10.1111/j.1744-6570.1990.tb00681.x.

Macan, T.H., & Hayes, T.L. (1995). Both sides of the employment interview interaction: Perceptions of interviewers and applicants with disabilities. *Rehabilitation Psychology*, *40*, 261–278. http://dx.doi.org/10.1037/0090-5550.40.4.261.

Macan, T., & Merritt, S. (2011). Actions speak too: Uncovering possible implicit and explicit discrimination in the employment interview process. In G.P. Hodgkinson, & J.K. Ford (Eds.), *International review of industrial and organizational psychology. Vol. 26*. (pp. 293–337). Chichester, UK: Wiley. http://dx.doi.org/10.1002/9781119992592.ch8.

Madera, J.M., & Hebl, M.R. (2012). Discrimination against facially stigmatized applicants in interviews: An eye-tracking and face-to-face investigation. *Journal of Applied Psychology*, *97*, 317–330. http://dx.doi.org/10.1037/a0025799.

Major, B., & O'Brien, L.T. (2005). The social psychology of stigma. *Annual Review of Psychology*, *56*, 393–421. http://dx.doi.org/10.1146/annurev.psych.56.091103.070137.

Mallett, R. K., Wilson, T. D., & Gilbert, D. T. (2008). Expect the unexpected: Failure to anticipate similarities leads to an intergroup forecasting error. *Journal of Personality an Social Pscyhology*, *94*(2), 265–277. http://dx.doi.org/10.1037/0022.

Marr, J.C., & Cable, D.M. (2014). Do interviewers sell themselves short? The effects of selling orientation on interviewers' judgments. *Academy of Management Journal*, *57*, 624–651. http://dx.doi.org/10.5465/amj.2011.0504.

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*, 599–616. http://dx.doi.org/10.1037/0021-9010.79.4.599.

McElroy, T., & Dowd, K. (2007). Susceptibility to anchoring effects: How openness to experience influences responses to anchoring cues. *Judgment and Decision Making*, *2*, 48–53 (http://journal.sjdm.org/).

Merriënboer, J.G., & Sweller, J. (2005). Cognitive load theory and complex learning: Recent developments and future directions. *Educational Psychology Review*, *17*, 147–177. http://dx.doi.org/10.1007/s10648-005-3951-0.

Motowidlo, S.J., & Burnett, J.R. (1995). Aural and visual sources of validity in structured employment interviews. *Organizational Behavior and Human Decision Processes*, *61*, 239–249. http://dx.doi.org/10.1006/obhd.1995.1019.

Muraven, M., & Baumeister, R.F. (2000). Self-regulation and depletion of limited resources: Does self-control resemble a muscle? *Psychological Bulletin*, *126*, 247–259. http://dx.doi.org/10.1037/0033-2909.126.2.247.

Mussweiler, T., & Strack, F. (1999). Hypothesis-consistent testing and semantic priming in the anchoring paradigm: A selective accessibility model. *Journal of Experimental Social Psychology*, *35*, 136–164. http://dx.doi.org/10.1006/jesp.1998.1364.

Neumann, R., & Strack, F. (2000). Approach and avoidance: The influence of proprioceptive and exteroceptive cues on encoding of affective information. *Journal of Personality and Social Psychology*, *79*, 39–48. http://dx.doi.org/10.1037/0022-3514.79.1.39.

Nickerson, R.S. (1998). Confirmation bias: A ubiquitous phenomenon in many guises. *Review of General Psychology*, *2*, 175–220. http://dx.doi.org/10.1037/1089-2680.2.2.175.

Nordstrom, C.R., Hall, R.J., & Bartels, L.K. (1998). First impressions versus good impressions: The effect of self-regulation on interview evaluations. *The Journal of Psychology*, *132*, 477–491. http://dx.doi.org/10.1080/00223989809599281.

Northcraft, G.B., & Neale, M.A. (1987). Experts, amateurs, and real estate: An anchoring and adjustment perspective on property pricing decisions. *Organizational Behavior and Human Resources Decision Processes*, *39*, 84–97. http://dx.doi.org/10.1016/0749-5978(87)90046-X.

Oechssler, J., Roider, A., & Schmitz, P.W. (2009). Cognitive abilities and behavioral biases. *Journal of Economic Behavior & Organization*, *72*, 147–152. http://dx.doi.org/10.1016/j.jebo.2009.04.018.

Park, J.H., Faulkner, J., & Schaller, M. (2003). Evolved disease-avoidance processes and contemporary anti-social behavior: Prejudicial attitudes and avoidance of people with physical disabilities. *Journal of Nonverbal Behavior*, *27*, 65–87. http://dx.doi.org/10.1023/A:1023910408854.

Park, J.H., Schaller, M., & Crandall, C.S. (2007). Pathogen-avoidance mechanisms and the stigmatization of obese people. *Evolution and Human Behavior*, *28*, 410–414. http://dx.doi.org/10.1016/j.evolhumbehav.2007.05.008.

Petersen, L.E., & Krings, F. (2009). Are ethical codes of conduct toothless tigers for dealing with employment discrimination? *Journal of Business Ethics*, *85*, 501–514. http://dx.doi.org/10.1007/s10551-008-9785-1.

Posthuma, R.A., Morgeson, F.P., & Campion, M.A. (2002). Beyond employment interview validity: A comprehensive narrative review of recent research and trends over time. *Personnel Psychology*, *55*, 1–17. http://dx.doi.org/10.1111/j.1744-6570.2002.tb00103.x.

Pratt, M.G., Rockmann, K.W., & Kaufmann, J.B. (2006). Constructing professional identity: The role of work and identity learning cycles in the customization of identity among medical residents. *The Academy of Management Journal*, *49*, 235–262. http://dx.doi.org/10.2307/20159762.

Pryor, J.B., Reeder, G.D., & Landau, S. (1999). A social-psychological analysis of HIV-related stigma. *American Behavioral Scientist*, *42*, 1193–1211. http://dx.doi.org/10.1177/0002764299042007010.

Pryor, J.B., Reeder, G.D., Yeadon, C., & Hesson-McInnis, M. (2004). A dual-process model of reactions to perceived stigma. *Journal of Personality and Social Psychology*, *87*, 436–452. http://dx.doi.org/10.1037/0022-3514.87.4.436.

Purkiss, S.L., Perrewé, P.L., Gillespie, T.L., Mayes, B.T., & Ferris, G.R. (2006). Implicit sources of bias in employment interview judgments and decisions. *Organizational Behavior and Human Decision Processes*, *101*, 152–167. http://dx.doi.org/10.1016/j.obhdp.2006.06.005.

Rakic, T., Steffens, M.C., & Mummendey, A. (2011). Blinded by the accent! The minor role of looks in ethnic categorization. *Journal of Personality and Social Psychology*, *100*, 16–29. http://dx.doi.org/10.1037/a0021522.

Rinck, M., & Becker, E.S. (2006). Spider fearful individuals attend to threat, then quickly avoid it: Evidence from eye movements. *Journal of Abnormal Psychology*, *115*, 231–238. http://dx.doi.org/10.1037/0021-843×.115.2.231.

Ritov, I. (1996). Anchoring in simulated competitive market negotiations. *Organizational Behavior and Human Decision Processes*, *67*, 16–25. http://dx.doi.org/10.1006/obhd.1996.0062.

Roberts, L.L., & Macan, T. -H. (2006). Disability disclosure effects on employment interview ratings of applicants with nonvisible disabilities. *Rehabilitation Psychology*, *51*, 239–246. http://dx.doi.org/10.1037/0090-5550.51.3.239.

Roets, A., Van Hiel, A., Cornelis, I., & Soetens, B. (2008). Determinants of task performance and invested effort: A need for closure by relative cognitive capacity interaction analysis. *Personality and Social Psychology Bulletin*, *34*, 779–792. http://dx.doi.org/10.1177/0146167208315554.

Roulin, N., Bangerter, A., & Levashina, J. (2015). Honest and deceptive impression management in the employment interview: Can it be detected and how does it impact evaluations? *Personnel Psychology*, *68*, 395–444. http://dx.doi.org/10.1111/peps.12079.

Ryan, A.M., & Ployhart, R.E. (2014). A century of selection. *Annual Review of Psychology*, *65*, 1–25. http://dx.doi.org/10.1146/annurev-psych-010213-115134.

Ryan, S., Oaten, M., Stevenson, R.J., & Case, T.I. (2012). Facial disfigurement is treated like an infectious disease. *Evolution and Human Behavior*, *33*, 639–646. http://dx.doi.org/10.1016/j.evolhumbehav.2012.04.001.

Rynes, S.L. (1989). The employment interview as a recruitment device. In R. Eder, & G.R. Ferris (Eds.), *The Employment interview: Theory, research, and practice* (pp. 127–142). Newbury Park: Sage.

Sacco, J.M., Scheu, C.R., Ryan, A.M., & Schmitt, N. (2003). An investigation of race and sex similarity effects in interviews: A multilevel approach to relational demography. *Journal of Applied Psychology*, *88*, 852–865. http://dx.doi.org/10.1037/0021-9010.88.5.852.

Samuels, R. (2009). The magical number two, plus or minus: Dual-process theory as a theory of cognitive kinds. In J.S.B.T. Evans, & K. Frankish (Eds.), *In two minds: Dual processes and beyond* (pp. 129–146). Oxford: Oxford University Press.

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*, 262–274. http://dx.doi.org/10.1037/0033-2909.124.2.262.

Schwarz, N., & Vaughn, L.A. (2002). The availability heuristic revisited: Ease of recall and content of recall as distinct sources of information. In T. Gilovich, D. Griffin, & D. Kahneman (Eds.), *Heuristics and biases: The psychology of intuitive judgment* (pp. 103–119). New York: Cambridge University Press.

Shelton, J.N., Richeson, J.A., Salvatore, J., & Trawalter, S. (2005). Ironic effects of racial bias during interracial interactions. *Psychological Science*, *16*, 397–402. http://dx.doi.org/10.1111/j.0956-7976.2005.01547.x.

Sherman, J.W., & Frost, L.A. (2000). On the encoding of stereotype-relevant information under cognitive load. *Personality and Social Psychology Bulletin*, *26*, 26–34. http://dx.doi.org/10.1177/0146167200261003.

Sherman, J.W., Stroessner, S.J., Conrey, F.R., & Azam, O.A. (2005). Prejudice and stereotype maintenance processes: Attention, attribution, and individuation. *Journal of Personality and Social Psychology*, *89*, 607–622. http://dx.doi.org/10.1037/0022-3514.89.4.607.

Shynkaruk, J., & Thompson, V. (2006). Confidence and accuracy in deductive reasoning. *Memory & Cognition*, *34*, 619–632. http://dx.doi.org/10.3758/bf03193584.

Singletary, S.L., & Hebl, M.R. (2009). Compensatory strategies for reducing interpersonal discrimination: The effectiveness of acknowledgments, increased positivity, and individuating information. *Journal of Applied Psychology*, *94*, 797–805. http://dx.doi.org/10.1037/a0014185.

Sloman, S.A. (1996). The empirical case for two systems of reasoning. *Psychological Bulletin*, *119*, 3–22. http://dx.doi.org/10.1037/0033-2909.119.1.3.

Smith, E.R., & DeCoster, J. (2000). Dual-process models in social and cognitive psychology: Conceptual integration and links to underlying memory systems. *Personality and Social Psychology Review*, *4*, 108–131. http://dx.doi.org/10.1207/S15327957PSPR0402_01.

Springbett, B.M. (1958). Factors affecting the final decision in the employment interview. *Canadian Journal of Psychology/Revue canadienne de psychologie*, *12*(1), 13–22. http://dx.doi.org/10.1037/h0083726.

Stanovich, K.E. (1999). *Who is rational?: Studies of individual differences in reasoning.* Mahwah, NJ: Elrbaum.

Steiner, D.D. (2012). Personnel selection across the globe. In N. Schmitt (Ed.), *The oxford handbook of personnel assessment and selection* (pp. 740–767). New York: Oxford University Press.

Stewart, G.L., Dustin, S.L., Barrick, M.R., & Darnold, T.C. (2008). Exploring the handshake in employment interviews. *Journal of Applied Psychology*, *93*, 1139. http://dx.doi.org/10.1037/0021-9010.93.5.1139.

Straus, S.G., Miles, J.A., & Levesque, L.L. (2001). The effects of videoconference, telephone, and face-to-face media on interviewer and applicant judgments in employment interviews. *Journal of Management*, *27*, 363–381. http://dx.doi.org/10.1177/014920630102700308.

Swann, W.B., & Ely, R.J. (1984). A battle of wills: Self-verification versus behavioral confirmation. *Journal of Personality and Social Psychology*, *46*, 1287–1302. http://dx.doi.org/10.1037/0022-3514.46.6.1287.

Thompson, V.A. (2009). Dual-process theories: A metacognitive perspective. In J.S.B.T. Evans, & K. Frankish (Eds.), *In two minds: Dual processes and beyond* (pp. 171–195). New York: Oxford University Press.

Thompson, V.A., Turner, J.A.P., & Pennycook, G. (2011). Intuition, reason, and metacognition. *Cognitive Psychology*, *63*, 107–140. http://dx.doi.org/10.1016/j.cogpsych.2011.06.001.

Thompson, V.A., Turner, J.A.P., Pennycook, G., Ball, L.J., Brack, H., Ophir, Y., & Ackerman, R. (2013). The role of answer fluency and perceptual fluency as metacognitive cues for initiating analytic thinking. *Cognition*, *128*, 237–251. http://dx.doi.org/10.1016/j.cognition.2012.09.012.

Thorpe, S., Fize, D., & Marlot, C. (1996). Speed of processing in the human visual system. *Nature, 381*, 520–522. http://dx.doi.org/10.1038/381520a0.

Tice, D.M., Butler, J.L., Muraven, M.B., & Stillwell, A.M. (1995). When modesty prevails: Differential favorability of self-presentation to friends and strangers. *Journal of Personality and Social Psychology*, *69*, 1120–1138. http://dx.doi.org/10.1037/0022-3514.69.6.1120.

Todd, A.R., & Burgmer, P. (2013). Perspective taking and automatic intergroup evaluation change: Testing an associative self-anchoring account. *Journal of Personality and Social Psychology*, *104*, 786. http://dx.doi.org/10.1037/a0031999.

Torrens, D. (1999). Individual differences and the belief bias effect: Mental models, logical necessity, and abstract reasoning. *Thinking and Reasoning*, *5*, 1–28. http://dx.doi.org/10.1080/135467899394066.

Turnley, W.H., & Bolino, M.C. (2001). Achieving desired images while avoiding undesired images: Exploring the role of self-monitoring in impression management. *Journal of Applied Psychology*, *86*, 351–360. http://dx.doi.org/10.1037/0021-9010.86.2.351.

Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, *185*, 1124–1131. http://dx.doi.org/10.1126/science.185.4157.1124.

Uhlmann, E.L., Leavitt, K., Menges, J.I., Koopman, J., Howe, M., & Johnson, R.E. (2012). Getting explicit about the implicit: A taxonomy of implicit measures and guide for their use in organizational research. *Organizational Research Methods*, *15*, 553–601. http://dx.doi.org/10.1177/1094428112442750.

Vivian Chen, C. -H., Lee, H. -M., & Yvonne Yeh, Y. -J. (2008). The antecedent and consequence of person–organization fit: Ingratiation, similarity, hiring recommendations and job offer. *International Journal of Selection and Assessment*, *16*, 210–219. http://dx.doi.org/10.1111/j.1468-2389.2008.00427.x.

Vohs, K.D., Baumeister, R.F., & Ciarocco, N.J. (2005). Self-regulation and self-presentation: regulatory resource depletion impairs impression management and effortful self-presentation depletes regulatory resources. *Journal of Personality and Social Psychology*, *88*, 632. http://dx.doi.org/10.1037/0022-3514.88.4.632.

Watkins, L.M., & Johnston, L. (2000). Screening job applicants: The impact of physical attractiveness and application quality. *International Journal of Selection and Assessment*, *8*, 76–84. http://dx.doi.org/10.1111/1468-2389.00135.

Webster, D.M., & Kruglanski, A.W. (1994). Individual differences in need for cognitive closure. *Journal of Personality and Social Psychology*, *67*, 1049–1062. http://dx.doi.org/10.1037/0022-3514.67.6.1049.

Wells, G.L., & Olson, E.A. (2003). Eyewitness testimony. *Annual Review of Psychology*, *54*, 277–295. http://dx.doi.org/10.1146/annurev.psych.54.101601.145028.

Wiesner, W.H., & Cronshaw, S.F. (1988). A meta-analytic investigation of the impact of interview format and degree of structure on the validity of the employment interview. *Journal of Occupational Psychology*, *61*, 275–290. http://dx.doi.org/10.1111/j.2044-8325.1988.tb00467.x.

Wilder, D.A. (1978). Reduction of intergroup discrimination through individuation of the out-group. *Journal of Personality and Social Psychology*, *36*, 1361–1374. http://dx.doi.org/10.1037/0022-3514.36.12.1361.

(in press) Wilhelmy, A., Kleinmann, M., König, C.J., Melchers, K., & Truxillo, D.M. (2015). How interviewers try to make favorable impressions: A qualitative study. *Journal of Applied Psychology*.

Willis, J., & Todorov, A. (2006). First impressions. *Psychological Science*, *17*, 592–598. http://dx.doi.org/10.1111/j.1467-9280.2006.01750.x.

Windschitl, P.D., Scherer, A.M., Smith, A.R., & Rose, J.P. (2013). Why so confident? The influence of outcome desirability on selective exposure and likelihood judgment. *Organizational Behavior and Human Decision Processes, 120*, 73–86. http://dx.doi.org/10.1016/j.obhdp.2012.10.002.

Wolfe, N.D., Dunavan, C.P., & Diamond, J. (2007). Origins of major human infectious diseases. *Nature, 447*, 279–283. http://dx.doi.org/10.1038/nature05775.

Wright, R., & Powell, M.B. (2006). Investigative interviewers' perceptions of their difficulties in adhering to open-ended questions with child witnesses. *International Journal of Police Science and Management, 8*, 316–325 (Retrieved from: http://heinonline.org/HOL/).

Zajonc, R.B. (1980). Feeling and thinking: Preferences need no inferences. *American Psychologist, 35*, 151–175. http://dx.doi.org/10.1037/0003-066X.35.2.151.