ABSTRACT

Building on a metacognitive framework of heuristic judgments, we investigate the effect of applicant stigma on interviewers’ overconfidence in their (biased) judgments. 193 experienced interviewers conducted a face-to-face interview with an applicant who was facially stigmatized or not, and who was either visible (traditional interview) or not (partially-blind interview) to the interviewer during the rapport building stage. In traditional interviews negatively biased interview ratings of stigmatized applicants and overconfidence in these judgments. This effect was partially mediated by the interviewer’s professional performance during rapport building. Interview procedure moderated both the direct and indirect effect (through professional performance) of applicant stigma on interviewer confidence. Results show that interviewer (over)confidence in biased judgments is driven by the initial effects of, and reactions to, the stigmatized applicant.

Keywords: Job interview; Stigma; Interviewer Confidence
Often Biased but Rarely in Doubt:

How Initial Reactions to Stigmatized Applicants Affects Interviewer Confidence

Confidence plays an important role in many important decision-making situations. Take, for instance, an eyewitness of a crime who needs to identify the offender from a line-up. There will be likely inquiries with regards to the eyewitnesses’ confidence, either by the police officer or judge, as an external indicator of accuracy. However, one recurring finding in the literature is that confidence and accuracy of judgments are not as strongly related and one can be confident about an incorrect or biased judgment (Busey, Tunnicliff, Loftus, & Loftus, 2000; Korniat, 2012). Interestingly, people have a general tendency to be overconfident in their judgments, a finding that has been corroborated in different domains including eyewitness testimony (Wells & Olson, 2003), financial investments (Barber & Odean, 2001), and social judgments (Dunlosky & Metcalfe, 2009).

In the present paper we consider confidence in the context of biased decision-making. We focus on the job interview as a social setting that is shown to be vulnerable to biased decision-making, particularly when encountering stigmatized applicants (Macan & Merritt, 2011; Madera & Hebl, 2012). Dipboye and Jackson (1999) were among the first to show that interviewers are overconfident about their own ability to evaluate job applicants, and we seek to expand this line of research by investigating interviewer confidence in the context of biased decisions.

The goal of the present paper is twofold. First, building on the premise that interviewer judgments are negatively affected by the applicant’s stigma (Madera & Hebl, 2012), we further investigated whether interviewing stigmatized applicants trigger overconfidence in interviewers. In doing so, we focus on applicants with a facial stigma (i.e., port-wine stain; see Madera & Hebl, 2012). Second, building on the framework of heuristic judgments (Tversky & Kahneman, 1974), we investigated the role of the interviewer’s initial
impressions of the (stigmatized) applicant, and impressions of their professional performance during the rapport-building stage, as factors driving overconfidence in biased interview decisions. In the following paragraph, we take a closer look at the decision-making processes in the job interview before we discuss the role of confidence in (biased) interview judgments of stigmatized applicants.

**Job Interview and Bias**

The job interview has become such an fundamental tool in selection that it is applied in nearly all selection procedures (Huffcutt, Culbertson, & Weyhrauch, 2013), sometimes it is the only tool that is used, and often it is the tool for making the ultimate hiring decision (Levashina, Hartwell, Morgeson, & Campion, 2013). The interview is generally structured around two successive stages (Dipboye, 2005; Dipboye & Johnson, 2013). The first stage is the *rapport-building* stage that covers the first few minutes of the job interview during which the interviewer aims to establish rapport with the applicant. Rapport building is considered as chit-chat about superficial topics (e.g., hobbies) to reduce applicant nervousness, and to build a temporary relationship (Chapman & Zweig, 2005). The second stage is the *actual interview* during which interviewers gather job-relevant information about the applicant’s knowledge, skills, abilities, and other characteristics that are needed to perform a specific job. Finally, the last stage is the *post-interview* stage, in which interviewers make their final judgments of the applicant.

Researchers have introduced interview structure as a way to improve the psychometric properties of the interview by making the interview function more like a well-constructed psychological test (Levashina, et al., 2013). However, structured interviews appear not to be immune to bias (Macan & Merritt, 2011), and despite these advancements the interview has remained under much scrutiny for its proneness to bias and discrimination of applicants based on stigmatizing factors such as race (Roth, Van Iddekinge, Huffcutt,
In this study, we investigated interview bias against one specific group of applicants with an uncontrolled facial stigma, namely a port-wine stain (PWS). Estimates are that around 10% of the world population has a PWS on various regions of the body (Valente, 2009). Interview bias can be considered as a systematic distortion that is contingent on one’s group membership and that results from limitations in cognitive processing, individual motivation, or from a combination of both motivational and cognitive factors (Fiske & Taylor, 1991). According to impression formation theories (Brewer & Feinstein, 1999; Fiske, & Neuberg, 1990), interviewers will tend to simplify the excessive amount of new information they encounter when meeting others (e.g., when interviewing a person for the first time) by categorizing others on the basis of the most salient person characteristics and/or features (Dipboye, 2005). Physical appearance (and one’s face in particular) seems to play a prominent role in categorization as appearance is one of the first and most salient features people notice that is processed immediately (i.e., ‘strong cue’; see Fiske, & Neuberg, 1990). Indeed, in a recent study Madera and Hebl (2012) showed that facially stigmatized applicants are subject to interview bias in traditional structured interviews, and this bias was driven by the effects of stigma on cognitive processes.

Impression formation theories further posit that interviewers might reconsider their initial categorization and re-categorize when more personalized information becomes available about a person (Fiske et al., 1999). However, with regards to the job interview context, for long scholars have suggested that impressions formed during the first few minutes of the interview might affect interviewers’ level of attention, the amount of information they recall and how information is evaluated and interpreted (Dipboye & Johnson, 2013; Dipboye & Macan, 1988; Macan & Dipboye, 1990). Although this notion has
received criticism (Buckley & Eder, 1988), recent findings by Barrick, Swider, and Stewart (2010) showed that initial impressions of the applicant formed during the rapport building stage are a strong predictor of the interview outcome. This finding has raised concerns about the possible contaminating nature of rapport building and initial impressions on interviewer decision-making (Levashina, et al., 2013; McCarthy, Van Iddekinge, & Campion, 2010). In other words, interview bias may be a result of the contaminating effects of the applicant’s stigma during the rapport-building stage. In a similar way such stigma effects during the rapport-building stage may affect the interviewers’ confidence and may lead to overconfidence in biased judgment, which is discussed next.

**Confidence and (Biased) Interview Judgments of Stigmatized Applicants**

One of the first researchers that considered confidence in judgmental bias was Daniel Kahneman, who founded his heuristics and biases research on his experiences as an interviewer in the Israeli army. He was intrigued by his own perceived ability to foretell the performance of each candidate and the powerful conviction, or confidence, in his judgments even though he was aware that the validity or accuracy of his judgments was negligible (Kahneman, 2003a; Kahneman & Klein, 2009). Hence, from experience Daniel Kahneman described the human tendency to have confidence in erroneous or biased judgments.

Although that the origin of heuristics lies in Daniel Kahneman’s experiences as a job interviewer it is rarely applied to account for interview judgments and the confidence related to these judgments. For instance, we know of just one study that showed interviewers’ overconfidence in interview judgments (Dipboye & Jackson, 1999). Tversky and Kahneman (1974) introduced heuristics in psychology and they defined heuristics as simple procedures, or judgmental rules, that are automatically executed and offer often imperfect but quick and satisfactory reactions to certain situations or problems (Evans & Stanovich, 2013; Kahneman
The execution of heuristics results in an automated response or intuition that can take different forms including urges, behaviors, thoughts, emotions, and impressions.

Indeed, research has shown the human ability to quickly form initial impressions, and the speed with which these are formed suggest that initial impressions are intuitive rather than content-driven and thoughtful (Bar, Neta, & Linz, 2006; Willis & Todorov, 2006). Kahneman (2003b) proposed that intuitive heuristic responses like impressions are derived from physical properties such as the observer’s impressions of attributes of the stimulus, and abstract properties such as similarity, surprisingness, and affective valence of the stimulus. Hence, when forming an initial impression of the applicant physical properties of the applicant, such as a PWS, are expected to facilitate categorization (Fiske & Neuberg, 1990).

According to impression formation models, when first observing an applicant (i.e., target), the interviewer (i.e., observer) attends to cues that are immediately observable such as appearance. Strong cues, such as a PWS, trigger fast social categorization (i.e., heuristic response), and activate affective and cognitive responses including fear, disgust, and stereotypical thinking (Pryor, Reeder, Yeadon, & Hesson-McInnis, 2004). If such strong cues are absent, the interviewer will require additional information (e.g., verbal information) before the applicant can be categorized in a meaningful social category. Hence, compared to the categorization process of stigmatized individuals, the absence of a strong visual cue (like a PWS), and the subsequent need for additional information, is indicative of a slower initial impression formation process when the applicant is non-stigmatized.

The facilitating effect of applicant stigma on the initial impression formation may also influence the interviewer’s confidence. Metacognitive theory on judgment and decision-making suggests that each heuristic response, such as an initial impression, is accompanied by a Feeling Of Rightness (FOR) regarding the response (Thompson, 2009; Thompson et al., 2013). This FOR (for an excellent review see Thompson, 2009) is not related to an objective
reality or assessment of actual accuracy, but it is based on the fluency with which the heuristic responses are produced (Thompson et al., 2013). When heuristic responses are produced relatively fast they are associated with a high confidence that the heuristic answer is correct (i.e., strong FOR). Contrary, when heuristic responses are produced relatively slow the heuristic outcomes are associated with a low confidence in the heuristic answer (i.e., low FOR).

When applying this theory to the initial impressions of applicants that are formed during the rapport-building stage, the fluent classification of the stigmatized applicant may induce a strong FOR, and the slow classification of non-stigmatized applicants may induce a weak FOR. When retrieving these initial impressions from memory during the decision-making stage, both the actual impression and the metacognitive experience are retrieved. Hence, compared to non-stigmatized applicants the fluency with which stigmatized applicants are categorized, and the accompanying strong FOR, is expected to result in higher levels of confidence (i.e., overconfidence) interviewers have in their own performance and judgments, even despite the negative stereotypical content of the memory (Busey et al., 2000; Thompson, 2009).

Put differently, we propose that interviewer confidence is rooted in the effects of stigma during the initial impression formation process. In order to test this we introduce partially-blind interviews as an alternative for the traditional interview procedure. Compared to the traditional, structured interview procedure, partially-blind interviewing has a similar structure except that in the partially-blind procedure interviewer and interviewee are visually separated during the rapport building stage (see Figure 1). This manipulation ensures that interviewers are unaware of the applicant’s physical characteristics (e.g., PWS or no PWS) during initial impression formation, resulting in a similar fluency with which impressions are formed. Moreover, as fluency of the initial impression formation is dependent on the
observation of a strong cue, such as a PWS, the inability to observe this cue during impression formation should reduce the fluency with which the initial impression is formed. Hence, we predict that interview procedure moderates the effects of the PWS on the interviewer’s post-interview confidence:

**Hypothesis 1.** Applicant stigma has a strong positive effect on interviewer confidence in traditional, structured interviews, but not in partially-blind interviews.

**Confidence and Quality of the Rapport-Building Stage**

Interviewers have been found to evaluate the degree to which an interview was successful on the quality of the rapport building stage (Chapman & Zweig, 2005). This quality is deducted from the extent to which the interviewers consider themselves successful in establishing a superficial relationship with the applicant. Research has indicated that interviewers succeed at establishing this relationship when they present themselves - and are perceived by the applicant – as warm and friendly as well as knowledgeable and professional (Chapman, Uiggerslev, Carroll, Piasentin, & Jones, 2005; Derous, 2007; Dipboye & Johnson, 2013).

Whereas such self-presentation for interviewers is considered as an automated process in routine situations (Tice, Butler, Muraven, & Stillwell, 1995), the applicant’s stigma may interfere with this automated process. Moreover, direct observation of the applicant’s stigma can affect the perceived social situation for the interviewer, and trigger the need to increase the efforts to make a positive impression on the applicant (Bozeman & Kacmar, 1997). This positive adjustment is motivated by the interviewers’ awareness of legal consequences of discrimination (Myors et al., 2008), and their goal not to be perceived as discriminatory (Dovidio, Kwami, & Gaertner, 2002). However, when interviewers are unaware of the applicant’s stigma during partially-blind interviewing the applicant’s stigma is expected to have no effect on the interviewer’s self-presentation. As the interviewer’s goal is to establish
a temporary relationship with the applicant, we assess their success in achieving this goal through applicant judgments of the interviewers’ professional performance during rapport building. We hypothesize for visually stigmatized applicants (i.e., with a PWS) that:

**Hypothesis 2.** Interviewers’ professional performance during rapport building will be evaluated more positively when establishing rapport with the stigmatized compared to the non-stigmatized applicant in traditional, structured interviews, but not in partially-blind interviews.

This process of building rapport with the applicant, and the perceived successfulness of this process by the interviewer, can affect the interviewers’ confidence (Chapman & Zweig, 2005). Because observing the applicant’s stigma may influence the efforts and successfulness of the interviewer during the rapport-building stage, and this may in turn influence the interviewer’s confidence, we expect that the interviewers’ professional performance during rapport-building may mediate the effect of applicant stigma on the confidence associated with their judgments. However, similar to the direct effect of applicant stigma on interviewer confidence, this mediation effect is only expected to occur when the interviewer is aware of the applicant’s stigma during the rapport-building stage (i.e., traditional, structured interviews), but not when the interviewer is unaware of the stigma (i.e., partially-blind interviews). Hence, in line with a recent framework for assessing moderated mediation (Edwards & Lambert, 2007), we propose and investigate a direct effect and first-stage moderation model that is shown in Figure 2. We hypothesize:

**Hypothesis 3.** Applicant stigma (i.e., PWS) will have a direct and indirect (mediated through interviewer professional performance) effect on interviewer confidence, and interview procedure (i.e., traditional vs. partially-blind) will moderate both the direct and indirect effects.

**METHOD**


**Ethics Statement**

The University Institutional Review Board considered ethical aspects and approved the study. Participants provided written informed consent prior to participation, and received a written debriefing after all the data was collected.

**Participants**

The sample consisted of 193 professional interviewers who all had conducted interviewers in the 12 months preceding their study participation. The mean age of our sample was 26.62 years ($SD = 6.87$), 78.8% were female, and 100% white-Caucasians. None of the interviewers was visually stigmatized, and all were naive for the purpose of the experiment. In three of the 193 interviews the professional performance judgments were missing due to technical errors of the registration system. These missing values were replaced with the mean professional performance rating of the entire sample.

**Applicant Background and Stigma Manipulation**

For this study we recruited one white, 24 year old male confederate actor, with a master degree in Business Administration and Economics, to act as the applicant. The confederate received training to standardize verbal and nonverbal behavior across interviews. The confederate applicant memorized applicant background information, which was designed to present a candidate who was suitable for an entry-level consultancy position. The applicant’s profile depicted a recently graduated master student with a degree in business administration and economics, with above average grades, and work experience that has been obtained through summer jobs, internships, and freelance consultancy. The PWS was applied by means of a temporary tattoo, created for this study by a specialized firm. The PWS was applied to the left hand side of the confederates’ face at the height of his eye socket. Prior to the interview, the confederate waited in a separate room to avoid any contact with the interviewers preceding the interview.
Design and Measures

This study applied a 2 (facial stigma: no stigma vs. port-wine stain) x 2 (interview procedure: traditional vs. partially-blind) between-subject design. Following the rapport building, the applicant rated the interviewer’s professional performance to assess the successfulness of the interviewer in establishing rapport. Six Likert-type scale items (1 = Absolutely disagree, 5 = Absolutely agree) assessed the interviewers’ professional performance (α = .89; “The interviewer appeared self-confident”, “The interview so far went smoothly”, “The interviewer made me feel at ease”, “The interviewer was attentive to my answers”, “The interviewer made me feel uncomfortable” (R), and “I enjoyed the interview so far”).

Following the complete interview (i.e., rapport building and behavioral interview) interviewers rated the applicant’s job suitability. Previous research on interview judgments has successfully applied this measure to assess interview outcomes (Barrick et al., 2010; Cable & Judge, 1997; Higgins & Judge, 2004; Stevens & Kristof, 1995). Five items, scored on a six-point Likert-type scale (1 = Low, 6 = High), assessed perceived job suitability (α = .90; "How qualified is this applicant for the job", "How attractive is this applicant as a potential employee of your organization", "How highly do you regard this applicant", "How well did this applicant do in the interview", and “How likely are you to offer this applicant the job”).

Finally, interviewers’ confidence was assessed through task-specific self-assessment of confidence (α = .81; “I believe that I successfully conducted the interview”, “I’m confident of the judgments I have made”, “I acted professionally in my role as interviewer”, “The way I handled the interview satisfies me”), using a four five-point Likert-type scale (1 = Absolutely disagree, 5 = Absolutely agree). This confidence measure was adapted from task-specific measures assessing self-efficacy, a concept that is closely related to confidence (Gist,
Schwoerer, & Rosen, 1989; Rooney & Osipow, 1992). We designed four items to address different levels of handling a specific task (i.e., the interview) rather than using just one item, based on recommendations to avoid using single item measures and assess multiple performance levels when assessing confidence (Lee & Bobko, 1994). Table 1 represents the means, standard deviations, and correlations of independent and dependent variables.

**Procedure**

**Recruitment of participants.** Participants (i.e., interviewers) were contacted through HR mailing lists and professional channels such as a national HR magazine. We used a cover story suggesting that we were studying the differential effects of interview styles in a behavioral description interview (Janz, 1982) versus situational interviewing (Latham, Saari, Pursell, & Campion, 1980), on applicant reactions and feedback. Those who agreed to participate in this study were invited by the experimenter to come to the university to conduct the interview.

**Instructions.** Upon arrival the experiment leader took the participants to the interview room. Prior to conducting the interviewer the participants received instructions about the interview procedure. First, participants had to select an envelope with a card indicating the kind of interview technique they were going to use. While they were under the impression that two (out of four) envelopes would contain situational interview instructions (see cover story), all four envelopes contained instructions to apply the behavioral description interviewing technique. Second, participants were instructed to start the job interview with five minutes of rapport building, in which light topics (e.g., hobbies) were to be discussed. Participants were also informed that the rapport building stage would be followed by a short break and that after that break, the behavioral interview would start. Third, participants were instructed to focus on job-relevant competencies that were specified in the job description. Finally, participants were presented with the applicant’s resume and the job description (entry
level consultant). They were instructed to carefully read the resume and job description and they were requested to prepare for the interview. In order to provide structure, participants received a list with sample questions for each of the job-relevant competencies (i.e., ability to work in team and independently, customer focus, problem solving) following the behavioral interviewing style. Participants (i.e., interviewers) were instructed to take notes when desired. They were all asked to prepare for an interview that would last 20 minutes.

**Interview stage and ratings.** After the participants (i.e., interviewers) had received all instructions and they had prepared them for the interview, the experimenter indicated that the applicant had arrived in a separate room, and that s/he was going fetch the applicant. Note that in the partially-blind interview condition, the interviewer was seated behind a curtain in order to visually separate him/her from the applicant. More specifically, we draw a curtain across the interview table, a manipulation that was inspired by the long-standing tradition of blind auditions in the music industry (Goldin & Rouse, 2000). When the experimenter and applicant entered the interview room, the applicant was seated on the chair opposite to the interviewer (either visible to the interviewer or non-visible due to the curtain in between the applicant and the interviewer). The interviewer started with the rapport building. After five minutes, the experimenter signaled to the interviewer to terminate the rapport building stage. During the short break after the rapport building stage, and prior to the behavioral interview stage, the applicant rated the interviewer’s professional performance during rapport building. After having made the required ratings, visual contact between the interviewer and the applicant was restored for those in the partially-blind condition, to continue with the behavioral description interview. Following the interview, the applicant left the room. The interviewer then rated the applicant’s job suitability, reported his/her confidence, and filled-out a manipulation check concerning the observation and correct identification of the applicant’s stigma.
Validity check of applicant behavior

Because the involvement of an actor/confederate (i.e., the applicant) might affect the confederate’s behavior in social settings such as the interview (Kleck & Strentra, 1980), a validity check was performed on the applicant’s behavior. Two observers, who were totally blind to the study goal, independently evaluated the confederate’s verbal and paraverbal behavior in 20 randomly selected interviews. Based on Peeters and Lievens (2006) observers rated incidents of verbal impression management (e.g., entitlements, overcoming obstacles, opinion-conformity) and paraverbal aspects of behavior (e.g., friendly, calm impression, ‘to the point’) on a five-point Likert-type scale (1 = not at all/never; 5 = very much/a lot). Before observers rated the applicant, we provided them a ‘frame-of-reference’ training regarding impression management behaviors. Finally, observers also rated the applicant’s overall interview performance (1 = not good at all/very bad; 5 = excellent/very good). Results are discussed next.

RESULTS

Preliminary analyses

A validity check on the applicant’s behavior showed no significant differences between stigma conditions or interview procedures in the confederate’s verbal IM, $F(3, 76) = 1.86, p = .14$, paraverbal behavior (friendly impression: $F(3, 76) = .278, p = .84$; calm impression: $F(3, 76) = 1.60, p = .19$; ‘to-the-point’: $F(3, 76) = 1.68, p = .17$), and overall interview performance, $F(3, 76) = 1.41, p = .2$.

As we aimed to investigate if biased interview judgments are associated with overconfidence, and the processes that drive this effect, we first sought to replicate findings by Madera and Hebl (2012) in order to establish if interviewer judgments were indeed biased against facially stigmatized applicants in traditional interviews. To this end, we tested the effects of stigma on job suitability judgments following traditional interviews. Results
showed a significant effect of applicant stigma on job suitability ratings, $t(94) = 2.04, p = .04$, $M_{no\ stigma} - M_{stigma} = 0.26, d = .41$, thereby replicating previous findings of interview bias against facially stigmatized applicants (e.g., Madera & Hebl, 2012). Interestingly, no significant effect of stigma on job suitability judgments was found in the partially-blind interviews, $t(94) = .78, p = .44$. These results indicate that the applicant’s facial stigma negatively biases interviewer judgments, and that this negative effect is due to the effects of stigma during the rapport-building stage.

**Hypothesis testing**

Hypothesis 1 predicted that interviewers would report higher levels of confidence after interviewing a stigmatized applicant (vs. non-stigmatized applicants), and that this effect was dependent on interview procedure (traditional vs. partially blind). As the decision has been found to affect judgments of confidence (Koriat, 2012), we took job suitability judgments by the interviewer of the applicant into account. Starting with the higher order interaction, our results indicated a significant interaction effect between applicant stigma and interview procedure on interviewer confidence, $F(1,189) = 9.1, p = .003, 95\% \ CI [-0.81,-0.17], \eta^2 = .05$. As can be seen in Figure 3, in the traditional interview procedure the interviewers reported higher levels of confidence after interviewing a stigmatized applicant ($M = 3.44, SD = .6$) than after interviewing a non-stigmatized applicant ($M = 2.96, SD = .65$), $F(1,93) = 24.73, p < .001, M_{no\ stigma} - M_{stigma} = -0.47 (95\% \ CI [-0.81,-0.35]), d = .75$. However, partially-blind interviews did not result in a difference in interviewer confidence between interviews with a stigmatized applicant ($M = 3.31, SD = .48$) and those with a non-stigmatized applicant ($M = 3.15, SD = .77$), $F(1,94) = 0.45, p = .51, M_{no\ stigma} - M_{stigma} = -0.16 (95\% \ CI [-0.3,0.15]), d = .25$. Overall, these findings provide support for Hypothesis 1.

Hypothesis 2 predicted an interaction effect between applicant stigma and interview procedure on the interviewer’s professional performance during rapport building. Results
showed an interaction effect as hypothesized, $F(1,189) = 4.0, p = .05$, $95\%$ CI [-0.56,-0.01]), $\eta^2 = .02$. Specifically, interviewers displayed higher levels of professional performance in traditional interviews when building rapport with a stigmatized applicant ($M = 3.6, SD = .27$) compared to when building rapport with a non-stigmatized applicant ($M = 3.36, SD = .69$), $F(1,94) = 5.91, p = .02$, $M_{no\text{-}stigma} - M_{stigma} = -0.24$ ($95\%$ CI [0.05,0.44]), $d = .46$. However, partially-blind interviews did not result in difference in ratings of professional performance following rapport building with the stigmatized applicant ($M = 3.43, SD = .4$) and the non-stigmatized applicant ($M = 3.46, SD = .55$), $F(1,94) = 0.15, p = .7$, $M_{no\text{-}stigma} - M_{stigma} = 0.03$ ($95\%$ CI [-0.23,0.15]), $d = .06$. These results provide support for our hypothesis that interviewer’s professional performance is dependent on the presence and visibility of the applicant’s PWS.

Finally, Hypothesis 3 investigated the direct effect of applicant stigma on interviewer confidence, and the indirect path mediated by interviewer professional performance, moderated by interview procedure. We again controlled for job suitability ratings in all analyses (Koriat, 2012). To test moderated mediation, we used the PROCESS macro described in Hayes (2013) for testing a direct effect and a first stage moderation model. We used bootstrapping to test the difference between direct and indirect effects at the different levels of the moderator (i.e., interview procedure). Mean centered scores of all continuous variables were used in the analysis. Results of the analysis are reported in Table 2. The upper part of the table reports the results of the first step in the analysis in which the mediator (interviewer professional performance) is regressed on the main and interaction effects of stigma and interview procedure. The next step, reported in the second part of Table 2, is to regress the dependent variable (interviewer confidence) on the main and interaction effects of stigma and interview procedure. As can be seen, there was a direct effect of stigma, and an interaction effect of stigma and procedure, on interviewers’ confidence. Additionally, results
show a significant interaction effect of stigma and procedure on the interviewer professional performance, and interviewer professional performance significantly predicted interviewer confidence. Overall these results provide support for the proposed direct and first-stage moderation model.²

DISCUSSION

From his involvement as a job interviewer, Nobel-prize laureate Daniel Kahneman coined the term “illusion of validity” to describe the (unjustified) sense of confidence interviewers have in their own ability to foretell how well an applicant will perform in a job (Kahneman & Klein, 2009). In a context such as the job interview confidence may be pivotal because, as aptly noted by Klayman and colleagues (1999), “In a world in which competence is hard to measure, confidence often wins the day” (Klayman, Soll, González-Vallejo, & Barlas, 1999, p. 243).

Dipboye and Jackson (1999) also showed that interviewers’ may be overconfident about their ability to evaluate applicants. The present study adds to this literature, as well as to the work of Madera and Hebl (2012), by further investigating factors in both the interviewer (i.e., professional performance) and the interview (i.e., visibility of the applicant’s stigma during the rapport-building stage) that drive overconfidence in evaluations of facially stigmatized applicants. Specifically, we investigated whether interviewers’ increased efforts and subsequent success in establishing rapport with the applicant mediated this relationship. Further, through an adapted interview procedure we investigated whether the interviewer’s overconfidence was rooted in the effects of stigma during the rapport-building stage. In doing so we built on a metacognitive framework of initial heuristic judgments, and instant categorization of stigmatized applicants.

At its core, the findings present an intriguing paradox: Interviewers rate stigmatized applicants lower compared to a non-stigmatized applicant, but do so with greater confidence.
The traditional interview procedure has for long received the critique that job irrelevant applicant factors, such as facial stigma, negatively bias interview outcome (Arvey, 1979; Madera & Hebl, 2012). Indeed we show that bias against facially stigmatized occurred following the traditional interview. However, our goal was to extend previous research on interview judgments (Barrick, Swider, & Stewart, 2010) by investigating whether initial effects of the applicant’s stigma, occurring during the rapport-building stage, also affected interviewer confidence. Following traditional interviews, interviewers were significantly more confident when evaluating stigmatized applicants compared to non-stigmatized applicants. However, when delaying the observation of the applicant until after rapport building in the partially-blind interview, this overconfidence-effect disappeared. This finding is in line with the metacognitive framework of judgment and decision-making proposing that direct exposure to the stigma results in a fast categorization process, triggering a strong feeling of rightness (FOR), eventually resulting in overconfidence.

In addition, we considered and found that the effect of applicant stigma on interviewer confidence was mediated by the interviewer’s professional performance during the rapport-building stage. Specifically, results show that when the applicant’s stigma was present and visible to the interviewer this resulted in a more positive professional performance during the rapport-building stage, which positively affected post-interview confidence. This finding suggests that immediate observation of the applicant’s stigma initiates behavioral adjustments by the interviewer that result in more positive perceptions by the applicant.

At first sight, this finding might seem to challenge previous findings on negative behavioral reactions to stigmatized individuals (Houston & Bull, 1994) and job seekers (e.g., Hebl, Foster, Mannix, & Dovidio, 2002). However, situational differences between the studies may account for these contrasting effects. Situational factors are key in determining one’s desired social and professional identity (Pratt, Rockmann, & Kaufmann, 2006).
Previous studies on reactions to stigmatized individuals have been done in more general contexts (e.g., a subway), or application settings (e.g., interaction with store manager), that do not motivate the observer to consider their own reputation (Wheeler & Petty, 2001), nor are there any legal consequences for their negative and avoidant behavior. In the current study however, trained interviewers conducted face-to-face job interviews with an actual applicant. In this face-to-face interview setting, the experienced interviewers are knowledgeable on the professional standards, aware of the legal consequences of discrimination, and thus likely concerned about the impressions made on the stigmatized applicants.

**Strengths and Limitations**

One of the main strengths of the current study is that experienced interviewers conducted a face-to-face interview rather than that they evaluated videotaped interviews, hence enhancing the ecological validity of study findings. In addition, we investigated perceptions and judgments from multiple sources (i.e., interviewer and applicant) and these judgments were related as expected (e.g., professional performance during the rapport-building stage and interviewer confidence).

One limitation is the use of only one male research confederate and the possibility of confederate-effects. For example, Kleck and Strenta (1980) showed that individuals who had a scar placed on their face over-interpreted the amount of discrimination that they received. However, we found that the stigmatized applicant only in the traditional interview procedure rated the interviewer higher on professional performance. Thus, contrary to over-interpretation of negative behaviors by the stigmatized applicant (Kleck & Strenta, 1980) we find more positive judgments by the stigmatized applicant but only so in the traditional interview procedure. Furthermore, post-hoc analyses of variance of the research confederate’s behavior by two independent observers who were blind for the study purpose, showed no significant differences in the confederate’s interview performance (i.e., verbal impression.
management; paraverbal behavior and overall quality of interview performance) across experimental conditions. Both findings indicate that the mere presence of the stigma did not influence the applicant’s behavior. However, we suggest further research – if feasible - to replicate findings with multiple (ideally: two male and female) research confederates.

Another potential limitation is the preponderance of women in our sample. Interviewer characteristics (in general; see Guion, 2011) and “gender-of-interviewer” effects (in specific) warrant further attention in future studies (Padfield & Procter, 1996). For instance, the interviewers’ gender may play a part when sensitive, gendered topics are questioned (Kane & Macaulay, 1993), but might also depend on the interviewer’s sexism (Good & Rudman, 2010), job characteristics (feminine vs. masculine sex-typed jobs; Johnson, Sitzmann, & Nguyen, 2014), and degree of interview structure (McCarthy et al., 2010).

Further, overconfidence may also depend on the type of judgment that is made, and is most likely to occur in confidence-range judgments (e.g., judgment of a single applicant) but is less prominent in two-choice judgments (e.g., choosing between two alternatives; Klayman et al., 1999). We used a between subject-design that only allow interviewers to observe one single applicant (confidence-range judgments) and does not allow for a comparison between applicants. Future research might consider other designs (like within-subject designs) to provide additional insights on overconfidence in biased interview judgments.

Following-up on Klayman et al.’s (1999) suggestions, one could expect overconfidence also to depend on type of stimuli (e.g., type of visual stigma; level of interview structure; type of interview questions) as well as individual differences in interviewers (Dipboye, 2005). That is, stigma effects might depend on interviewers’ proneness to overconfidence as well as motivational factors (such as implicit/explicit prejudice against people with a facial stigma; Devine et al., 2002) and any interactions of
motivational and cognitive factors on candidate evaluations (Fiske & Taylor, 1984). Future research, therefore, could consider how confidence interacts with other potential cognitive and motivational determinants of interview bias (like prejudice). This is in line with Dipboye’s model on the selection interview (2005), in which interviewer individual differences (e.g., expectations, beliefs, motives) are considered core processes of the interview process.

**Theoretical and Practical Implications**

The present paper adds to the interview literature and interview models (e.g., Dipboye, 2005) by investigating both social (i.e., professionalism) and cognitive (i.e., heuristics, like feeling-of-rightness) core components of the interview process, as well as their interrelationship. Our study findings may have implications for both research and practice.

First, consistent with recent findings (Barrick et al., 2012; Barrick, Swider, & Stewart, 2010) our study shows that fast and frugal processes, that are triggered by applicant factors such as a PWS and occur during the rapport-building stage of the interview, have a pervasive effect on interview outcome and interviewer confidence. This underscores the importance of considering cognitive and behavioral processes occurring during the rapport-building stage in more detail by applying a two-stage decision framework that acknowledges the importance of judgments that are formed during the rapport-building stage of the interview (Dipboye, 2005). For instance, future research could more closely examine the effects of cognitive and behavioral processes during the rapport-building stage, on a broad range of interview outcomes like initial impression formation, interviewer’s behavior including information gathering, and interviewer decision-making. A fruitful research design to investigate these processes would assess the perceived job-suitability of the applicant following the different stages of the job interview (i.e., the rapport-building stage and at the end of the experiment).
Second, we apply the metacognitive framework of feelings of rightness to account for overconfidence in biased judgments. However this framework may have implications for interviewer information processing and decision-making. Specifically, studies may apply this framework to advance the understanding of the initial effects of applicant stigma (i.e., during the rapport-building stage) on the interviewer’s need and ability to elaborate on initial impressions (e.g., individuation; Claypool & Bernstein, 2014), possible effects on the interviewer’s information gathering or interpretation style (Dipboye, 2005), and the interviewer’s decision-making process (e.g., belief updating; Hogarth & Einhorn, 1992; Thompson, 2009).

In addition, behavioral adaptation during the rapport-building stage, in reaction to the stigma, also warrants further scrutiny. For example, research has shown that interviewer’s “selling orientation” (i.e., promoting the organization) negatively affects interview validity (Marr & Cable, 2014). In a similar way, interviewers’ motivation to adjust their behavior when interacting with stigmatized applicants, even during the rapport-building stage, may also affect interview outcomes. Future studies may approach interviewing stigmatized applicants, and more specifically rapport-building with stigmatized applicants, as a situation in which interviewers are motivated to manage their presentation towards the stigmatized applicant (Baumeister, 1982). In a formal setting such as the interview, interviewers are likely motivated to present themselves more positive towards stigmatized applicants in order to avoid potential losses, such as legal consequences or being perceived as unfair and biased (Bolino, Kacmar, Turnley, & Gilstrap, 2008; Dipboye & Johnson, 2013).

However, interviewers’ motivation to adjust their behavior (i.e., more positive treatment of stigmatized interviewee), also draws on the interviewers’ cognitive resources (Vohs, Baumeister, & Ciarocco, 2005), which – paradoxically- could negatively affect information gathering, processing, and decision-making (Dipboye & Johnson, 2013; Madera
& Hebl, 2012). Therefore, training interventions for interviewers might be useful (Conway, Jako, & Goodman, 1995) to raise awareness of cognitive and motivational mechanisms of judgment making, and train interviewers how to approach or evaluate stigmatized applicants in an objective and fair way. For instance, via frame-of-reference training, interviewers might learn to more accurately observe and judge applicants (Melchers, Lienhardt, von Aarburg, & Kleinmann, 2011). Also awareness training, building further on systematic reflection (Ellis, Carette, Anseel & Lievens, 2014), may make interviewers mindful about impression formation processes and might teach them how to control intuitive reactions (i.e., first impressions) and counter stereotypical thoughts.

A final implication of our findings is that interviewer overconfidence may signal the pervasive and possible self-sustaining nature of interview bias against stigmatized applicants. Moreover, overconfidence following biased decisions may be predictive of future judgments (Koriat, 2012) and refine current (negative) attitudes that shape future behavior (Glasman & Albarracín, 2006). Additionally, high levels of confidence may reinforce the interviewer’s self-perceived objectivity (Uhlmann & Cohen, 2006) that reduces interviewer motivation to learn from this experience. Future research should investigate if high levels of confidence are indeed related to future decisions and behavior, and seek to design and implement interventions that attenuate this process such as for example reflection or counterfactual thinking (Ellis et al., 2013).

Conclusion

Overall, we found that in job interview decisions, bias and confidence are strongly related. Building on a metacognitive framework of heuristics, we showed that interviewers’ confidence is driven by the effects of applicant stigma during the initial rapport-building stage. Additionally, the interviewer’s level of professional performance partially-mediated this process. Hence, study findings showed that applicants’ stigma does not only affect the
interview outcome; it also affects the interviewer. As suggested (Guion, 2011), research on the interview and interview bias would greatly benefit from an interviewer-oriented approach that focuses on the interviewer as decision-maker, and such a research agenda could provide a better understanding of the mechanisms underlying interview bias.
References


Footnotes

1 Analysis of the manipulation check showed that the stigma was observed, and correctly identified as a PWS, by 98.3% of the interviewers who had interviewed a stigmatized applicant. Additionally, none of the interviewers who had interviewed a non-stigmatized reported observe a PWS.

2 Findings did not change if we created one variable that tapped more onto confidence in judgment (1 item: “I’m confident of the judgments I have made”) and another variable that tapped more onto confidence in behavior / professional acting (the remaining three items; see Method section).

3 There was an equal distribution of men and women across experimental groups.
Table 1
Descriptive Statistics and Correlations of Dependent and Independent Variables

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>M</th>
<th>SD</th>
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</thead>
<tbody>
<tr>
<td>1. Stigma</td>
<td>96</td>
<td>.21</td>
<td>.98</td>
<td>-.09</td>
<td>-.04</td>
<td>.04</td>
<td>.20</td>
<td>.99</td>
<td>97</td>
<td></td>
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<td>2. Job Suitability</td>
<td>96</td>
<td>3.87</td>
<td>.67</td>
<td>-.19†</td>
<td>.18†</td>
<td>.32**</td>
<td>3.89</td>
<td>.53</td>
<td>97</td>
<td></td>
</tr>
<tr>
<td>3. Professional Performance</td>
<td>96</td>
<td>3.25</td>
<td>.66</td>
<td>.24*</td>
<td>.21*</td>
<td>.32**</td>
<td>3.25</td>
<td>.58</td>
<td>97</td>
<td></td>
</tr>
<tr>
<td>4. Interviewer Confidence</td>
<td>96</td>
<td>3.51</td>
<td>.49</td>
<td>.35**</td>
<td>.37**</td>
<td>.4**</td>
<td>3.44</td>
<td>.47</td>
<td>97</td>
<td></td>
</tr>
</tbody>
</table>

Means and correlations for the partially-blind interview procedure are on the top-right, means and correlations for the traditional interview procedure are on the bottom-left corner of this matrix.

*Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the 0.01 level (2-tailed).

Note. Stigma (0 = No Stigma; 1 = PWS)
Table 2. Effect of Applicant Stigma on Interviewer Confidence, Mediated by Professional Performance and Moderated by Interview Procedure

<table>
<thead>
<tr>
<th>Model</th>
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<th>$SE$</th>
<th>$t$</th>
<th>$R^2$</th>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>Constant</td>
<td>-1.48</td>
<td>.46</td>
<td>-3.19**</td>
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<td></td>
<td>Stigma ($a_x$)</td>
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<td>.07</td>
<td>1.93</td>
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<td></td>
<td>Procedure ($a_z$)</td>
<td>-.04</td>
<td>.07</td>
<td>-.51</td>
</tr>
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<td></td>
<td>Stigma x Procedure ($a_{xz}$)</td>
<td>-.16</td>
<td>.07</td>
<td>-2.25*</td>
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<tr>
<td></td>
<td>Suitability Rating (control)</td>
<td>.37</td>
<td>.12</td>
<td>3.18**</td>
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<tr>
<td>Dependent variable model: Interviewer Confidence</td>
<td>.28***</td>
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<td></td>
<td></td>
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<td></td>
<td>Constant</td>
<td>-2.24</td>
<td>.42</td>
<td>-5.31***</td>
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<td></td>
<td>Professional Performance</td>
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<td>3.84***</td>
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<td>.06</td>
<td>3.56***</td>
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<tr>
<td></td>
<td>Procedure ($b_z$)</td>
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<td>-.16</td>
<td>.06</td>
<td>-2.46*</td>
</tr>
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<td></td>
<td>Suitability Rating (control)</td>
<td>.57</td>
<td>.11</td>
<td>5.28***</td>
</tr>
</tbody>
</table>

Direct effects of Stigma on Interviewer Confidence

(-1) Traditional Interview | .39 | .09 | 4.18***|       |
(+1) Partially-blind Interview | .07 | .09 | .8 |       |

Indirect effects

| (-1) Traditional Interview | .07 | .03 | .02 | .16 |
| (+1) Partially-blind Interview | -.005 | .03 | -.06 | .05 |

Note. $N = 193$. Bootstrap sample size = 5,000. Unstandardized coefficients are presented. Stigma is coded -1 = nonstigmatized, 1 = stigmatized applicant; Procedure is coded -1 = traditional interviewing, 1 = partially-blind interviewing

† $p < .1$; * $p < .05$; ** $p < .01$; *** $p < .001$
Figure 1. Illustration of interview procedure - traditional interview (top) and partially-blind interview (bottom)
Figure 2. Hypothesized moderated mediation model
Figure 3. Effect of applicant stigma on interviewer confidence in traditional and partially-blind interview procedure.