



Bias in Interview Judgments of Stigmatized Applicants: A Dual Process Approach

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PREFACE

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So here I am, back in what I consider my second home, Brooklyn (NY). Watching over the East Side River I have the magnificent view of the Manhattan skyline, a view that never fails to amaze me. However, I realize that the view that I'm currently admiring has a rich history, and is the direct result of the efforts and influence of many people. Just like Manhattan, I at one point was an Island, and the person that I am today is shaped by the efforts and influence of the many friends, family, and colleagues that have resided on my island. First off, I want you all to know that when I amaze myself, or even others, credits go to all of you for the way you all have shaped me. However, there are certain people who have been central in the development of my island, and my skyline, and this is my opportunity to express my gratitude to them for their kindness, friendship, and love.

"I've got you deep in the heart of me, so deep in my heart that you're really a part of me"

(Frank Sinatra - I've got you under my skin)

Manhattan - or New Amsterdam as it was called back then - was originally established by the Dutch. This historical origin is at the heart of the city, and still visible in the street names (e.g., Amsterdam Ave) or the different areas (e.g., Brooklyn, Flushing, etc.). Given this historical importance, I feel it is my privilege to direct my first words of praise to the Dutch who are the heart of my island. Dad (DOGD), you always noted that the day I was born you saw in me a copy of yourself, and this conviction only increased as I grew up. To me, this is the biggest compliment that one can give me, because you are my example in life. Your love, friendship (although when I was little used to deny that I was your "biggest" friend), and your unlimited support and belief in me have led me to where I am today. I could write a book on the things you have

done for me, and how much you mean to me, but it all breaks down to me trying to tell you how much I love you and how I appreciate all you have done for me. Mom, despite the difficult times you always cared for me, and helped to sculpt me as the island I am today. Your social and caring nature (and the love for good and healthy food) are central to my personality and life style. Thank you for this, I love you. Then my big sister, thank you for always pushing me to the extreme, and teaching me to aim higher, be better, and be stronger. I want you to know I love you, respect you, and I learn so much from you every day (and will continue to do so in the future). Finally, Frank & Frederique, and my favorite niece & nephews (Bregje, Ted, & Huub), thanks for your continued interest and support.

“We built this city on rock and roll”

(Starship – We built this city)

After the settlement New Amsterdam was founded, and it expanded, it became a beacon of hope and opportunities for traders and business people. The Manhattan skyline is a direct result of the successes of these business people. Moreover, the skyscrapers that are dominating my current view were built to celebrate these successes. One of my biggest accomplishments in life so far is writing this dissertation (and hopefully obtaining my PhD), and therefore I consider this (so far) the centerpiece of my skyline, my Empire State Building. This could not have been done without the hard work of the clever (business) people who laid the foundation of this achievement and helped building my Empire State Building. First off, my promotor Eva Deros. Thank you for your faith in me during this project, and your guidance along the way. Now that this project is (nearly) completed, I hope Eva that you, just like me, look at this work – our work - with great pride. Also I would like to thank my co-promotor Wouter for his role in this project. I very much enjoyed working with you, our talks, the Facebook and Twitter interactions, and your humorous out-of-office messages. Know that I will find you whenever I need more information on Brunello or any other Italian wine. Special thanks go out to the other members of my guidance committee, Frederik Anseel, Arnaud Szmalec, Filip de Fruyt

and Marise Born. You all have had a significant influence in designing and building this center piece, and I could not have wished for a better and more fun team. Also, I would like to acknowledge the help and friendship I've received from Jonas Lang, Filip Lievens, Nicolas Roulin, Ute Kristine-Klehe, and many more scholars and peers (Annemarie Hiemstra, Jessica Grazi, Annika Wilhelmi, Janneke Oostrom) during my project. Finally, special thanks to Viktorien Banić, Kelly Lernous, and Bert de Smedt for all their efforts and help in this project.

“Turns out not where but who you're with that really matters”

(Dave Matthews Band – The best of what's around)

You thought that the skyline of New York is impressive, wait until you meet the people who live there (or once lived there). All of these current or former residents will all be able to share a great and typical New York story with you. I have been blessed with the many people that at some point were, or still are, inhabitants of my island. Reminiscing upon our friendship and shared experiences put a smile on my face every time, and I'm looking forward to all future adventures I can share with you all.

First off the special Dutchies that are have been long and permanent residents of my island. Starting with Tomasz Blom, thank you for being the friend you are. You were always there with me, when touring on the road with and without the band (RHCP), when working as air traffic controllers in Maastricht and Ghent, and when playing basketball in Chicago or Brooklyn. I'm very much looking forward to what our shared future in Old Amsterdam (and who knows one day New Amsterdam) is going to bring us. Second, the bunch of nihilists from Oud Nievoow (Rob, Herpie, Remco, Noud, Rens, and Thijs). You guys are the rug that really tie this room (or island) together, and I know we'll advance to the next round robin. I take comfort in knowing you are out there together with your special lady friends and little urban achievers. A special mention for my buddy Rob, whose style I most certainly dig (man!). Remember, sometimes you eat the bar, and well...sometimes the bar eats you. Because you should dance when you're winning, I'm grateful for the many dances (and dinners) I've shared with Maike & Laurens (my panther bro!) and Loes &

Wouter. Because the six (and soon seven) of us dance in perfect choreography, let's continue doing what do best. Cas & Viev (and your beautiful kids Lenthe and Sterre), from the early days of our friendship originating in New York, to our annual sail the lakes of Friesland, your energy, positivity, and friendship has been nothing short of inspirational. I would also like to thank my childhood friends, in particular Bram, Joost, and Sebastiaan, for the great times growing up, and for the continuous friendship we shared throughout the years. Then, my Annorlunda buddies, and in particular Geert (Tjeerd), Rein, Taxi, Lau, Harris, Marcel, Sjoerd, Wouter (Wafel) for the many great "beurrels" in Maastricht and beyond. Finally, Caro (& Kiek), Willeke, Marieke (& Bart), and many more party people, thanks for all the great moments we had, and the many more we'll share in the future.

New York is a melting pot of nationalities. In my life I had the pleasure to befriend, study/work with, and live with people from all corners of the world. Each of them taught me important lessons about their culture, values, and how friendship is experienced in their respective countries.

Thanks to the wonderful friends with whom I shared my time here, and continue to do so when I'm over there, I consider Brooklyn (Williamsburg / Greenpoint) to be my second home. This brings me to my most trusted little friend, Karen Hau. Thank you for all the "ovie night" with piu piu and sleepovers at 202, for the countless excursions (hiking, walking home from the west-village), and most of all for being that awesome friend (10-4). Patrick and Evan (PatVan), your friendship and hospitality know no limits (I can't stress that enough). Every time we reunite you make me feel like I never left. You guys are the best, and I'm super excited about all that is to come! Bas (ouwe pikkes), whether in Amsterdam or in New York, I always enjoy hanging out with you. Since our times in the Lower East Side things have evolved, you are a COO (big shot), you have the sweet and beautiful Daisy by your side (and not to forget Howie). You earned it every step of the way because of your go-getter attitude. Then Marie-Anne, my little terrorist...you never cease to amaze me. You made stats class fun, taught me to doodle, and I'm super proud of all that you have accomplished on a personal and professional level, and I continue to be proud of all you'll accomplish in the future. Finally, my study buddies Katie, Kristin and

James. Thanks for the urban explorations, (Canadian) thanksgiving experiences, nights out, and the trips we have made.

Besides a pretty view, New York is also the biggest job market in the USA. Many firms settle there and millions find employment there. Although employment refers to a job and a task in exchange for money, it also includes colleagues and coffee-time. Over the past four years I have experienced how colleagues can become truly special friends, and I'd like to start with the three people who have really become true friends. First, Bernd...Man, where to start...I don't know. I could make a summation of all the things we experienced together (such as conferences in San Diego and Houston, a trip to NY, or the various watering holes we frequented), but that wouldn't do our friendship justice. What I will say is that although thinking back of all the stuff we did is heartwarming, I'm mostly grateful for having been able to sit front-row in your theater of life. It was my honor to see you grow as my friend, a scientist, a husband to your beautiful wife Stephanie, a house owner/builder, and I'm looking forward to see you grow (and glow) as a father in the near future. Britt, I didn't check but you may well be at the exact opposite side of the globe while I'm writing this. Now you live in Singapore, and you know I'm super proud that you made that step. In my eyes that step embodies the development you have gone through, on a personal and professional level, during the past years. The fact that you continue to be upmost interested in what is going on in the lives of your Belgian (and Dutch) friends just shows your kind, interested, and caring nature. Thank you for all the great times! Hanne (Lootie, snelle pupbe), from day one you and I hit it off and that hasn't changed a bit even though you made your career-switch to the Jan Palfijn. Dutchie and Lootie was like Bassie and Adriaan, although sometimes I wonder who of us was the clown, and who was the acrobat. Besides our crazy side, we always found each other when in need of a friend, a talk, a distraction from daily life, or just a pizza and great glass of wine at our favorite pizza spot. You have been, and still are, an awesome friend to me.

In addition I've had the pleasure to work with many great people that made an effort to establish a friendship with me. Elias, my hipster buddy...you are a smart and funny guy with the most random interests. I've had a blast when

hanging out inside and outside of the office. Just a word of advice: stick with the hipster thing, but don't go crazy. Jordi (tiger) and Delphine, you two have fed me and made laugh a lot (big round of applause!). The people from the pp09 dining club (Bart VdV, Ilse M, Saar, Roy, and Jan), the dinner experiences at each of our places was super interesting. The food was great, and the company was even better. Thanks for these fun evenings, and I hope you all continue the tradition. I'd also like to thank sailor Lien Wille for keeping our ship (i.e., my office) nice and tidy. Without your efforts to water the plants this ship would have gone down at sea for sure. The great coffee-time friends (Karen, Jan, & Anneleen), thanks for the funny dances. Even though I didn't drink coffee, I got my kick out of you. Finally, I'd like to "thank" Michael for all the "fun" times.

"Home is wherever I'm with you"

(Edward Sharpe & The Magnetic Zeros – Home)

One of the most well known nicknames for New York is "the city that never sleeps", and is a reference to the enormous energy of the city. Kim, in the past nine years of my life, on my island, you have been the main source of energy. Your dynamic and optimistic personality can spiral me to great heights, and at the same time your rigor and rationality have the ability to keep my feet on the ground when needed. Living apart for such a long time wasn't always easy (read: was always not easy), but we made it work in a way that we can be proud of. Coming home to you on Friday was my favorite day of the week, and Sundays at about 3/4pm (when I left for Ghent) was the worst time of the week. However, our 43-hour weekend are over now that we are going to live together in Amsterdam, and from now on every day can be my favorite day of the week. I'm excited about our future, and I know you will continue to be my little bundle of energy.

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CHAPTER 1

INTRODUCTION

The abundance of research on interview discrimination has resulted in the conventional wisdom that stigmatizing applicant characteristics elicit biased interview judgments. Although this finding is robust across a wide variety of stigmatized groups, and despite the social importance of this effect, currently we lack understanding of the processes driving these biased decisions. The present dissertation contributes to the literature on personnel selection by investigating the mechanisms that drive bias in the job interviewer's decision-making process. This dissertation starts by presenting an overview of the current understanding of interview bias, and highlights the challenges that need to be addressed by future research. Next, building on research from social- and cognitive psychology, a dual-process framework of interview bias is presented. Propositions from this framework will guide the present dissertation and will be investigated in several empirical studies. The introduction concludes with an overview of the chapters and empirical studies of this dissertation.

INTRODUCTION

In recruitment, and more specifically in the field of selection and assessment, recruiters have a wide variety of selection tools at their disposal in order to assess the applicant's abilities, and select the best fitting applicant for the job. Many of these selection tools directly measure individual differences (e.g., cognitive ability) that are considered to be an indicator of future work performance (e.g., cognitive ability test; Guion, 2011), or directly assess performance on job-related tasks (e.g., assessment centers; Meriac, Hoffman, & Woehr, 2014). However, the job interview is still considered to be the most widely used tool in selection and assessment (Ryan & Ployhart, 2014). It is included in nearly all selection procedures (Huffcutt, Culbertson, & Weyhrauch, 2013), and is often the only, or ultimate, selection tool used to make a hiring decision (Levashina, Hartwell, Morgeson, & Campion, 2013).

Despite the central role of the job interview in modern-day selection, a critical line of research has cast doubt on the objectivity of interview judgments. Over the past decades, multiple studies have shown that stigmatizing applicant characteristics such as weight/obesity (Puhl & Heuer, 2009), race/ethnicity (Roth, Van Iddekinge, Huffcutt, Eidson Jr, & Bobko, 2002), (un)attractiveness (Dipboye, 2005a), and facial deformations such as port-wine stains (Madera & Hebl, 2012), result in discrimination. These results have led to the consensus that such stigmatizing features influence or bias interviewers' decisions. This implies that the applicant's stigma affects the interviewer's decision-making process. However, given the lack of studies that apply decision-theory to better understand interview judgments and bias (Posthuma, Morgeson, & Campion, 2002), the underlying mechanisms remain not well understood. This will be the focus of the present dissertation.

The amounting evidence of subjectivity in interview judgments, and the overwhelming popularity of the interview as a selection tool, shows a stubborn reliance in selection practice on intuition and subjective judgments (Highhouse, 2008). This preference for the job interview in practice is likely driven by the *illusion of validity*, or the (unjustified) sense of confidence interviewers have in their own ability to foretell how well an applicant will perform in a job

(Kahneman, 2003; Kahneman & Klein, 2009). Ironically, such a self-perception as rational and objective decision-maker makes interviewers more susceptible to include subjectivity and bias in their judgments (Uhlmann & Cohen, 2006).

The question then is how interviewers form their judgments on the applicant throughout the interview. To understand this one needs to know the structure of the job interview. Typically, the job interview consists of two stages during which information is exchanged, followed by a third decision-making stage (Chapman & Zweig, 2005; Dipboye, 2005b; Dipboye & Johnson, 2013). The interview usually starts with a rapport-building stage during which light topics are discussed such as the applicant's hobbies (i.e., small talk). From an interviewer perspective, the goal of the rapport-building stage is to establish a temporary/superficial relation with the applicant prior to the interview. Following the rapport-building stage, interviewers will continue with the interview stage that centers around the exchange of job-relevant information. The third stage, that is non-interactive and follows the interview stage, is the decision-making stage during which the interviewer records the final evaluation of the applicant (Dipboye & Johnson, 2013). This third stage shows that interviewers are expected to make their decisions at the end of the interview, or in other words at the end of a sequential presentation of information. This has important implications for the decision-making process as it increases the importance of information that is presented early in the sequence (Hogarth & Einhorn, 1992).

In general the validity of the interview, or at least its perception thereof, is founded on the assumption that interview judgments are primarily based on job-relevant information that is exchanged during the interview stage. Contrary to this assumption is the popular belief that interview judgments are largely made within "the first few minutes" of the interview. This popular belief proposes a decision-making process in which the initial impressions formed during the rapport-building stage play a significant role. An initial impression refers to the outcome of the human natural ability to rapidly and automatically form impressions of others (Bar, Neta, & Linz, 2006; Willis & Todorov, 2006). With regards to job interview decision-making, only recently evidence for the importance of initial impressions in the interviewer's decision-making process

was found (Barrick, Swider, & Stewart, 2010). Specifically, Barrick and colleagues note that “fast and frugal” judgments at the start of the interview (i.e., during rapport building) influence interview outcome.

The term “fast and frugal” is synonymous to the use of heuristics, or simple judgmental rules, in a decision-making process. Heuristics are derived from one of the most fundamental decision-making theories, namely dual-process theory (Gigerenzer & Gaissmaier, 2011; Mishra, 2014). However, theories of decision-making are rarely applied to account for interview decisions and bias (Dipboye et al., 2013; Posthuma, Morgeson, & Campion, 2002), even though heuristics are strongly related to error-prone intuitions, judgments, and decisions (Evans, 2008; Kahneman & Klein, 2009). The application of such a fundamental theory to account for interview bias therefore seems promising to advance our understanding of bias as an error in the decision-making process. Additionally, approaching interview bias from a decision-process perspective is likely to provide new insights and may answer consistent calls for a systematic framework of the processes influencing discrimination in job interviews (Arvey, 1979; Macan & Merritt, 2011). Therefore, the current dissertation seeks to introduce dual-process theory, and the use of heuristic, to advance the understanding of the process driving biased decision-making in job interviews.

THE PRESENT DISSERTATION AND OVERVIEW OF THE CHAPTERS

The present dissertation adds to the literature by seeking a better understanding of the process of bias in interview judgments (Derous, Ryan, & Buijsrogge, 2013). Moreover, this dissertation presents and investigates a theoretical framework, which is based on dual-process theory, which identifies parallels between the interview stages, reactions to stigma, and bias in decision-making process. Dual-process theory is not only the foundation of research on heuristics in decision-making (Evans, 2008; Kahneman, 2011), it also drives the reactions towards stigmatized individuals (Pryor, Reeder, Yeadon, & Hesson-McInnis, 2004), and aligns with the dual-stage decision-making process in interviews (Dipboye, 2005b). Hence, by aligning these theories and focusing on bias as a decision-making process rather than an outcome, this framework aims to advance the general understanding of biased decisions in job interview

decisions. Note that as Chapters 2, 3, 4, and 5 are submitted to different scientific journals, some overlap may occur in the presentation of the framework, interview bias, and reactions to stigmatized applicants. In addition, although Chapter 3 (Study 3.2) and Chapter 4 aimed to assess different propositions of the theoretical framework, both are based on the same study, and hence resulted in overlap with regards to study sample, study design, and study procedure.

Chapter 2, entitled “Why your stigma isn’t hired: A dual-process framework of interview bias” introduces the main theoretical framework of interview bias that is central to the current dissertation. The framework is founded on dual-process theory, as this theory accounts for the reactions to stigmatized individuals and the idiosyncrasies of judgment and decision-making. The chapter takes a building-block approach and discusses the various processes, in reaction to an applicants’ stigma, in relation to the goals and challenges of the interviewer during each stage of the interview. This allows for the discussion of the stigma-related effects on the interviewers’ decision-making process throughout the interview. Several propositions are made based on this framework, of which seven challenges are deducted and assessed in the following empirical studies of this dissertation (see Table 1). Additionally, important and interesting avenues for future research are discussed.

Chapter 3, entitled “Initial impression formation during rapport building: Anchors that drive biased decision making in interviews” is the first empirical chapter of this dissertation, that addresses three challenges posed by our framework in two related studies (see Table 1). This chapter investigates the “fast and frugal” heuristic process of initial impression formation, and the biasing influence on interview outcome, by drawing parallels to the anchoring-and- adjustment heuristic. Study 3.1 addresses the question whether bias originates during rapport-building. This is done by assessing the effects of applicant’s stigma on the interviewer’s cognitive processes (i.e., attention and memory), and the distinct effects of interviewer motivation (i.e., Need for Cognitive Closure), in relation to the initial impression formation process and subsequent biased decisions.

Study 3.2 investigates whether the effects of applicant stigma on the initial impression formation process, and interviewer motivation, anchors the decision-making process. To do so, Study 3.2 uses a bias-reducing intervention

Table 1

Overview of Chapters that Empirically Examine Proposition presented in the Dual-Process Framework of Interview Bias (see Chapter 2)

	Chapter 3	Chapter 4	Chapter 5
Challenge 1			
Identify the origin of bias: (Propositions 2a,d, 3a,b,c)	X		
Challenge 2			
Identify the evolution of bias: (Propositions 5a,b)	X		
Challenge 3			
Develop a theory-driven structural intervention: (Proposed in discussion)	X	X	
Challenge 4			
Identify the illusion of validity in biased decisions: (Proposition 6a,b)		X	
Challenge 5			
Identify interviewer behavioral adaptations towards stigmatized applicants: (Proposition 2a,b)		X	
Challenge 6			
Identify and account for boundary conditions of bias: (Proposition 7b)			X
Challenge 7			
Account for positive and negative bias in judgments: (Proposition 7b)			X

method, the partially-blind interview technique. In partially-blind interviews, the interviewer is unable to observe the stigmatized applicant during rapport-building. This manipulation of the traditional interview procedure allows interviewers to construct an initial impression of the applicants that is not disrupted by the reflexive reactions towards stigmatized applicants.

Chapter 4, entitled “Often biased but rarely in doubt: The anchoring effect of applicant stigma on interviewer confidence” addresses two challenges posed by our framework (see Table 1). Chapter 4 investigates the effects of

interviewing stigmatized applicants on the interviewers' subjective confidence in their own judgments (i.e., illusion of validity). Moreover, this chapter assesses whether the effects of applicant stigma on the interviewers' subjective confidence are manifested during the rapport-building stage. In addition, this chapter addresses the interviewer behavioral adaptations when building rapport with stigmatized applicants, and its relation to the interviewer's subjective confidence.

Chapter 5, entitled "Why a tattoo isn't always a taboo: Applicant tattoos from a signaling perspective" addresses challenges 6 and 7 posed by our framework (Table 1). This last empirical chapter challenges the implicit expectation that stigmatizing applicant factors, such as tattoos, always have an exclusive negative influence judgments in both an experimental (Study 5.1) and a field study (Study 5.2). Building on the emerging popularity of tattoos, and their relation to positive traits such as creativity, individuality, and openness to experience, this chapter identifies and investigates a possible boundary condition to the negative effects of tattoos in the interview. More specifically, this chapter posits that tattoos may be perceived as honest signals of traits and values that are related to openness to experience.

Finally, *Chapter 6* entails a general discussion of the framework in this dissertation in relation to the key-findings from the empirical chapters. In this discussion, the contributions of this dissertation, both theoretical and practical, are clarified, and the strengths, caveats, and avenues for future research are discussed.

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CHAPTER 2

WHY YOUR STIGMA ISN'T HIRED: A DUAL-PROCESS FRAMEWORK OF INTERVIEW BIAS¹

The job interview is one of the most widely used assessment tools in the recruitment process. Despite its popularity in practice, interview outcomes can be prone to bias. Although our knowledge of different applicant characteristics that elicit subgroup differences has grown exponentially, research continuously highlights the need for a framework underlying interview bias. In this paper we propose dual-process theory as an a framework for interview bias. Dual-process theory is a strong and widely applicable theoretical framework, that has influenced research on social-interactions, information processing, and decision making. Using a building block approach, we investigate how stigmatizing applicant characteristics affect the key processes during the three main stages of the interview (i.e., rapport-building, interview, evaluation). Second, we aim to inspire researchers to develop a more thorough understanding of the processes driving interview bias via key propositions based on this dual-process account.

¹ This chapter is based on: Buijsrogge, A., Deros, E., & Duyck, W. (2014). Why Your Stigma isn't Hired: A Dual-Process Framework of Interview Bias. *Manuscript under revision*.
Buijsrogge, A., Deros, E., & Duyck, W. (July, 2014). *Introducing the partially-blind job interview as a novel procedure to eliminate interview discrimination*. Paper presented at the 28th International Congress of Applied Psychology, Paris, France.

INTRODUCTION

“More research is needed to determine what goes on in interviews to influence differential evaluations; that is, researchers should begin to focus on the underlying process by which differential evaluations take place”

(Arvey, 1979, p. 761)

“ Given that the employment interview is primarily a decision-making tool, it is surprising that so few studies have utilized theories of decision making”

(Posthuma, Morgeson, & Campion, 2002, p. 16)

“Strangely there is no research...regarding the effects of interviewer rapport building on the effectiveness of the interview”

(Dipboye, Macan, & Shahani-Denning, 2012, p. 329)

“A more systematic framework would advance our understanding of the underlying processes influencing discrimination towards applicants with disabilities in employment interviews”

(Macan & Merritt, 2011, p. 299)

The job interview has been an integral part of recruitment and selection practice over the last 100 years (Ryan & Ployhart, 2014). In fact, the job interview is so popular in practice that researchers consider it to be rare, even unthinkable, to have a selection procedure that does not include the job interview (Huffcutt, Culbertson, & Weyhrauch, 2013). Actually, practitioners rely so heavily on the interview that it is often the only, or ultimate, selection tool used to make a hiring decision (Levashina, Hartwell, Morgeson, & Campion, 2013). Despite its popularity, the interview has also been criticized as a selection tool, because of its' subjective nature and proneness to bias and discrimination. Over the past decade, our knowledge of different applicant characteristics that elicit such bias, and subgroup differences, has grown exponentially. For instance, ethnicity (Kaiser & Pratt-Hyatt, 2009; Rakic,

Steffens, & Mummendey, 2011), religious beliefs / religion (Ghumman & Ryan, 2013; King & Ahmad, 2010), obesity (Hebl & Kleck, 2002; Puhl & Heuer, 2009), and facial deformation (Madera & Hebl, 2012) all elicit biased decisions in job interviews. Some stigmatizing factors are concealable, and not observable by others (Jones & King, 2013). In order for bias to occur, the interviewer needs to be, or become, aware of the stigmatizing applicant feature. Hence, in this paper we specifically focus on stigmatizing applicant factors that are visible or known to the interviewer.

In recent years, there have been substantial developments in the understanding of interview bias. For example, cognitive factors, such as information processing, have recently been identified as drivers of interview bias, and are therefore an important focus for research on this topic (e.g., Huffcutt, Van Iddekinge, & Roth, 2011, Madera & Hebl, 2010). Also, social psychological research has generated a broad knowledge base on interpersonal interactions, and how these result in bias (Fiske, 2000). Although these studies include a wide variety of interactional contexts, such as a customer service context (e.g., King, Shapiro, Hebl, Singletary, & Turner, 2006), their findings can have important implications for interactions in more specific contexts, such as the job interview. Furthermore, implicit or automatic processes are gradually receiving more attention in organizational research as drivers of behavior and decision-making (Uhlmann et al., 2012). This increasing interest highlights the advancements in both the understanding and available measures to investigate the implicit basis of behavior and decision-making in organizational settings (Macan & Merritt, 2011). The diversity of underlying mechanisms, from cognitive to social/interactional factors, indicates that interview bias is a complex phenomenon. In order to better understand “How applicant demographic characteristics influence interviewer judgments” (p. 210; Macan, 2009), a theoretical framework of interview bias that encompasses the cognitive and social aspects of bias is needed. Moreover, such a systematic framework is seen as an integral step in the development of interventions reducing bias (Macan & Merritt, 2011).

One widely accepted theoretical framework for thinking, reasoning, social judgment, and decision-making is dual-process theory (Evans, 2008; Kahneman

& Frederick, 2002). This theory has been increasingly used to account for behavior and decision-making in social psychology (Chaiken & Trope, 1999; Deutsch & Strack, 2006; Duckitt & Sibley, 2009; Fiske & Neuberg, 1990; Pryor, Reeder, Yeadon, & Hesson-McInnis, 2004; Strack & Deutsch, 2004) and cognitive psychology (Evans & Stanovich, 2013; Smith & DeCoster, 2000; Thompson, 2013). Dual-process theory proposes that humans are not rational information processors, but rather fallible human beings whose decision-making process is influenced by heuristics and biases (Tversky & Kahneman, 1974).

There have been many historical advances in the interview literature that are, at least implicitly, based on the premises that interviewers are in a way fallible. For example, major developments, aimed at increasing interview fairness, validity, and bias reduction, have focused on interview structure (Campion, Pursell, & Brown, 1988; Levashina et al., 2013). Structure limits the interviewers' freedom, and generates information that allows a better comparison between applicants as all of them have provided information on the same topics. Although initially meta-analyses showed that interview structure reduced adverse impact (Huffcutt & Roth, 1998), recent insights show that subgroup differences still prevail when using such techniques (Roth, Van Iddekinge, Huffcutt, Eidson Jr, & Bobko, 2002) and need further consideration.

Within this rationale, in an attempt to understand the processes driving interview bias, we focus on interviewers, as they are the information gatherer, processor, and decision-maker in the interview. However, it is also important to acknowledge the fallible nature of human decisions in general. Therefore, the overall goal of this paper is to introduce dual-process theory as a framework for interview bias (Evans, 2008). As noted, dual-process theory has been applied to a wide variety of fields, and is therefore a highly suitable framework to capture the complex interdisciplinary nature of interview bias. Even more so since the Nobel prize winning research on heuristics and biases, which is closely related to dual-process theory, actually originates from Daniel Kahneman's experiences and observations as an interviewer for the Israeli army (Kahneman, 2003a). Despite this origin, dual-process theory, and theory on heuristics, is only rarely applied in regard to interview processes (e.g., Dipboye, Macan, & Shahani-Denning, 2012). However, such a theoretical framework could advance the

understanding of how stigmatizing applicant features influence and bias the decision-making process throughout the various interview stages.

Bias and reactions to stigmatized individuals have been investigated in a wide variety of social situations, and interactional contexts, and is therefore not a novel concept. However, besides the consistent calls for such a comprehensive framework to account for interview bias, there are multiple reasons why the job interview is a specific context that warrants further scrutiny. First, the interview is a high-stakes context for both the interviewer and applicant, and both have much to win and also much to lose in this context. Second, the job interview is a formal context that is driven by rules, regulations, and legislation, especially concerning bias and discrimination of stigmatized applicants by interviewers. These first two contextual factors are especially important for the application of dual-process theory as these factors are considered to initiate conscious and effortful rule-based behavioral control (i.e., Type 2 processes), a process that may be absent in low-stakes situations that lack strict regulations. Finally, the interview is a social interaction that can be divided into various stages, and each stage is related to – at least for the interviewer – a specific set of goals. This allows for a “building block” approach (see for an example in the context of ability testing Lievens, De Corte, & Westerveld, 2012) to study bias in interview decisions. This building block approach is important as it allows for a progressive assessment of biased decisions that spans across all the interview stages.

We start with a discussion of the job interview stages, which is followed by an introduction of the central aspects of dual-process theory. Finally, we apply dual-process theory to each of the interview stages to identify and illustrate how interview bias progresses or is maintained throughout each stage.

From Rapport Building to Interview Outcome

The job interview is essentially a social exchange of information (Macan & Merritt, 2011). During this exchange, interviewers gather information to judge 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 behavior and appearance. Similarly, applicants gather information to extend their understanding 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 (Breugh & Starke, 2000; Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005; Turban, Forret, & Hendrickson, 1998). From this interaction, the role and goals of the interviewer can be deducted. First and foremost, interviewers seek to make an accurate and objective assessment of the applicant by gathering information. Second, interviewers aim to present a favorable impression of themselves and their company to the applicant.

The interview can be divided into three stages (Dipboye & Macan, 1988; Macan & Merritt, 2011). Interviews commonly start with the rapport building stage in which interviewers and applicant discuss light topics such as the applicants' hobbies. The goal of the interviewer during rapport building is not to consciously gather information on the applicant, but rather to relax the applicant and to establish rapport (Chapman & Zweig, 2005; Rynes, 1989). In order to establish a good level of rapport, interviewers need to present themselves as agreeable and friendly, but also knowledgeable and professional towards the applicant (Chapman et al., 2005; Derous, 2007; Dipboye & Johnson, 2013; Liden, Martin, & Parsons, 1993). The rapport building stage is followed by an interview stage in which the goal of the interviewer is to gather information that is indicative of the competencies required to perform the specific job (Campion, Palmer, & Campion, 1997; Levashina et al., 2013). Finally, in a post-interview stage, interviewers make a final evaluation of the applicant, resulting in an interview rating.

In theory, interview ratings should be based on the job-relevant information that is gathered during the interview stage. Therefore, much work has focused on improving the psychometric properties of the job interview by altering the procedure of the interview stage, for example by increasing interview structure (Campion et al., 1988, Campion, Palmer, & Campion, 1997). However, as has been shown, structured interviews might still reveal subgroup

difference (Roth et al., 2002), indicating that unwanted and peripheral processes influence interview ratings. Additionally, the assumption that interview ratings are based on job-relevant information is further challenged by the finding that initial impressions of applicants, formed during rapport-building, predict interview outcome (Barrick, Swider, & Stewart, 2010). Levashina and colleagues (2013) aptly commented that the rapport building stage could contaminate interview judgments through initial impressions, as these are based on job-irrelevant information. Moreover, as interviewers make their judgments following the interview this places additional weight on the impressions formed early in the interview (Hogarth & Einhorn, 1992). Building on dual-process theory, and research on heuristics and biases, we approach interview bias as a decision-making process that originates in the very first observation of the applicant.

Dual-Process Theory

Dual-process theory generally consider that human behavior, social judgments and decision making, is 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. For reasons of clarity, we will further refer to Type 1 and Type 2 processes in this paper, as these are considered to be the most neutral labels (Evans, 2008; Samuels, 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. 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 are considered to be innate, or may be acquired through learning or experiences (Evans, 2008; Kahneman & Frederick, 2002; Kahneman & Klein, 2009).

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 training 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 including 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 can't 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., behavior), 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 draw 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 draws 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 needed, Type 2 processes overrule and adjust Type 1 responses, and do so in function of the social situation (e.g., appropriate behavior in a job interview) and the individual's goals (e.g., to appear unbiased in light of an applicant with a visible stigma). 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. Next we will address the various demands placed on the interviewer throughout the different interview stages when conducting a job interview.

DUAL-PROCESS THEORY AND INTERVIEW BIAS

Basic Demands on the Interviewer

In general, conducting a job interview induces high demands on interviewers, and requires high levels of conscious involvement (Dipboye & Johnson, 2013; Nordstrom, Hall, & Bartels, 1998). However, to date there has been no differentiation between the various interview stages, although the nature of each interview stage, and the assorted goals of the interviewer, implies important differences between its' required demands.

The interview commences with a short rapport-building stage, and the goal of this stage, at least from an interviewer perspective, is to establish a superficial relationship with the applicant, and present a favorable impression of themselves and their organization. The main tasks of interviewers during this unstructured socialization process concern self-presentation (e.g., presentation according to professional standards and company policy) and providing information (i.e., a realistic job preview and information on the company). Although these tasks may be demanding at first, through training and experience the process of socialization, establishing rapport, and presenting a favorable impression becomes automated (Pratt, Rockmann, & Kaufmann, 2006; Tice, Butler, Muraven, & Stillwell, 1995). This automation occurs when tasks that are initially effortful and thus driven by Type 2 processes migrate to Type 1 processes, as cognitive scripts for these processes are developed (Evans, 2008; Kahneman & Frederick, 2002).

During the interview stage, the goal of the interviewer is information gathering in order to be able to make optimal judgment of the applicant's skills and abilities. This 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. Despite the general assumption that cognitive scripts guide interviewers through the different stages of the interview (Abelson, 1981; Gioia & Poole, 1984), and some tasks may migrate from Type 2

to Type 1 processes, many of the tasks during interviews require active cognitive control by the interviewer. As these 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 also negatively affect the interviewer's performance and judgments. Compared to unstructured interviews, interview structure reduces the cognitive demands imposed on the interviewer. This may drive the positive effects of interview structure on the predictive validity of the interview (Dipboye & Johnson, 2013).

In sum, we show that the interview stages differentiate the demands placed on the interviewer. The main factors that distinguish the stages, and thus the respective demands, are the goals, tasks, and nature of each stage. Therefore, we propose that basic demands on the interviewer during the rapport-building stage are low because interviewers typically can rely on Type 1 processes (i.e., scripts and heuristics), whereas the basic demands on the interviewer during the interview stage are much higher, and require more conscious Type 2 processes.

Proposition 1a: The tasks performed by the interviewer during the rapport-building stage are performed by automatic and effortless Type 1 processes, and hence place low cognitive demands on the interviewer.

Proposition 1b: The variety of tasks performed by the interviewer during the interview stage requires active and controlled Type 2 processes, and therefore places high cognitive demands on the interviewer.

Proposition 1c: In interviews, there is a level of cognitive demand under which interviewer performance is optimal, and deviations from this level will negatively affect interviewer performance.

Stigma as Triggers of Conflict

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, Reeder, Yeadon, & Hesson-McInnis, 2004; Zajonc, 1980).

The automaticity of these reactions, and the speed with which they are initiated, indicate that these behavioral, cognitive, and affective reactions are Type 1 impulses. However, these negative impulses are conflicting with those that are considered appropriate in the professional context of the job interview, and are therefore counterproductive for the attainment of the interviewer's goals. As a result, Type 2 processes will be triggered in an attempt to control and override the 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). For example, staring at the stigma is considered socially undesirable behavior, especially in a formal setting such as the job interview, and would be negatively perceived by the applicant. In reaction to the conflict between Type 1 impulse of staring at the stigma, and the interviewers' social and professional norms, Type 2 processes will be activated in order to inhibit and override these behavioral impulses by activating more controlled behaviors.

Evidence from neuroscience shows that perception of a stigmatized individual activates brain regions that are related to inhibitory processes (Krendl, Macrae, Kelley, Fugelsang, & Heatherton, 2006). The inhibition of undesirable Type 1 impulses (i.e., staring at the stigma, avoiding proximity), and the correction and overriding of these impulses by Type 2 processes to socially desirable behavior (i.e., not staring, approaching) occurs slowly and results in a pattern of behaviors that unfolds over time (Langer, Fiske, Taylor, &

Chanowitz, 1976; Pryor, Reeder, & Landau, 1999; Pryor et al., 2004; Rinck & Becker, 2006). This behavioral pattern is initially driven by Type 1 processes (i.e., staring at the stigma), and adapts to socially desirable behaviors (i.e., not staring at the stigma) when Type 2 processes gain control over behavior. 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 (Gross, 2002).

When applying this framework to the various interview stages, dual-process theory proposes that the direct negative Type 1 impulses following the observation of the stigma occur during the rapport-building stage. Because these Type 1 impulses conflict with the goals of the interviewer (i.e., being professional; providing good impressions), Type 2 processes are required to overrule these impulses and to control interviewer behavior. As previously noted, the goal of the interviewer during the rapport building stage is to establish a superficial relationship with the applicant, and present a favorable impression to the applicant. However, stigmatizing applicant characteristics may affect the interviewer's perception of the social situation, and initiate conscious control over their behavior towards the applicant (Bozeman & Kacmar, 1997). Specifically, the interviewer's initial reactions to the applicant's stigma is negative and undesirable given the formal context, and thus trigger the need to adjust behavior, a change which is motivated by the possible legal consequences of discrimination (Dipboye & Johnson, 2013). Thus, rather than depending on the negative behavioral impulses of Type 1 processes, interviewer behaviors towards stigmatized applicants may be driven by conscious Type 2 processes. 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.

Indeed, research has 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, individuals with strong implicit associations are even perceived as more positive by the stigmatized interaction partners, probably as a result of conscious adjustments in interpersonal behavior (Gonsalkorale, Hippel, Sherman, & Klauer, 2009; Shelton, Richeson, Salvatore, & Trawalter, 2005). Thus, when the initial implicit reactions are the strongest, interviewers may perceive their behavioral impulses as highly inappropriate. Consequently, these interviewers are motivated to adjust their behavior in order to trigger 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 will 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; Goffman, 1959).

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. However, as cognitive resources are limited, the enduring control can deplete the resources needed to control behavior (Madera & Hebl, 2012), and gradually Type 1 impulses may affect the interviewer's behavior and cognition (Baumeister et al., 1998; Evans, 2008). Specifically, in a long job interview it is thus likely that negative behavioral reactions by the interviewer towards the stigmatized applicant occur later in the interview process. Additionally, the depletion of cognitive resources makes the interviewer more vulnerable, also following the interview, to include Type 1 impulses in their decision-making which is discussed in the following section. First, based on the presented evidence, we make the following propositions:

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

Proposition 2b: Interviewers will 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 applicants.

Proposition 2c: The behavioral control in reaction to the conflict caused by the applicant's stigma will immediately increase cognitive demands during the rapport-building stage, and continue during the interview stage.

Proposition 2d: Due to the continuous cognitive control over unwanted impulses, and the gradual depletion of cognitive resources throughout the interview, interviewers become increasingly vulnerable to express negative behavioral impulses during the later stages of the interview.

How the Applicant's Stigma Affects the Core Interview Processes

Initial impression formation. Forming initial impressions about others is inherent to human nature. The speed with which impressions are formed suggest 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, observers (i.e., interviewers) are dependent on the serial presentation of information (i.e., auditory and visual cues). Information is presented serially as a function of the speed with which the different cues become available to the interviewer. Specifically, visual cues, such as the applicant's appearance, are immediately available and easy to process (Bruner, 1957; Thorpe, Fize, & Marlot, 1996), whereas behavioral and verbal 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 (i.e., appearance, stigma), and related abstract properties such as similarity, surprisingness, and affective valence (Kahneman, 2003b).

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 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, Dustin, Barrick, & Darnold, 2008). This substitution reduces the need for a thorough analysis, but rather draws on the interviewers’ intuitions that are outcomes of Type 1 processes. If the heuristic response to the simple question is judged as reasonably correct, or presented with sufficient confidence, it is casually accepted by the Type 2 processes without much adjustments (Evans, 2008). However, when the response is not considered to be reasonably correct, or lacks confidence, Type 2 processes will elaborate on the response.

In many selection procedures, the job interview is the first direct face-to-face contact between the interviewer and the applicant. Hence, interviewers will form initial impressions on applicants during the initial stage of the interview, which is the rapport-building stage. Indeed, recent studies have confirmed that interviewers form initial impressions during this interview stage, and that these impressions influence interview outcome (Barrick, Swider, & Stewart, 2010; Barrick et al., 2012). Building on the automaticity and speed with which initial impressions are formed, initial impressions may be regarded as the output of a heuristic process. This raises the question to what extent stigmatizing applicant characteristics affect the impression formation process. Stigma may be considered as strong cues that facilitate social categorization compared to when no such cue is available (Fiske & Neuberg, 1990). In other words, initial impressions are formed for both stigmatized and non-stigmatized applicants, but

a stigma facilitates the speed with which impressions are formed. Moreover, stigmatizing applicant characteristics may trigger affective and cognitive responses including negative feelings (e.g., fear, disgust) and activate stereotypes (Blascovich et al., 2001; Krieglmeier & Sherman, 2012; Pryor et al., 2004). The fluent retrieval of this information immediately provides sufficient information to form the initial impression (Lepore & Brown, 1997). The research on implicit cognition is based on the principle of automatic associations, which is considered to be a functional characteristic of Type 1 processes (Evans, 2008). Indeed, stigmatizing factors have been found to influence the implicit, and explicit, attitude formation processes (McConnell, Rydell, Strain, & Mackie, 2008), findings that have been expanded to the job interview context (Segrest Purkiss, Perrewé, Gillespie, Mayes, & Ferris, 2006; Sekaquaptewa, Espinoza, Thompson, Vargas, & von Hippel, 2003).

In addition to the direct activation of affective and cognitive responses, observation of the stigma triggers emotional reactions including an initial focus to the stigma (Levin, 2000; Madera & Hebl, 2012), which limits the attention to other sources of information (Finucane, 2011; Finucane & Power, 2010; Lavie, 2005; Richter & Yeung, 2012; Shomstein & Yantis, 2004, 2006). Hence, initial impressions of stigmatized applicants are formed instantly, and are based upon immediately available information (i.e., applicant feature and activated stereotypes) that provides sufficient information for a meaningful (social) categorization (Brewer, 1988; Fiske & Neuberg, 1990; Kunda & Thagard, 1996). In contrast, the absence of strong cues reduces the heuristic response fluency. This relatively slow formation of the heuristic response (i.e., initial impression) is due to the unavailability of immediate and sufficient coherent information, upon which to make a definite categorization of the applicant. Therefore, when the initial impression is formed slowly interviewers will gather salient information to further the categorization process and make adjustments to initial categorization if needed, processes that are known as individuation and recategorization (Fiske & Neuberg, 1990).

Each heuristic response, such as an initial impression, is related to a metacognitive intuition regarding the rightness of the response (Shynkaruk & Thompson, 2006; Thompson, 2009; Thompson, Prowse Turner, & Pennycook,

2011; Thompson et al., 2013). This intuition, which has been labeled as a feeling of rightness (FOR; for an in-depth review of the metacognitive concept see Thompson, 2009), signals the extent to which the individual is confident about the accuracy of the heuristic response. The strength of the FOR 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 FOR), rendering elaboration or corrections of the initial impressions unnecessary (Gilbert, Pelham, & Krull, 1988; Nordstrom et al., 1998; Thompson et al., 2011; Thompson et al., 2013). However, when the heuristic response fluency is slow, such as initial impressions of non-stigmatized applicants, interviewers experience lower levels of FOR associated with the initial impression. This initiates the need to elaborate (i.e., individuation) and adjust (i.e., recategorization) the initial impression by gathering and including additional verbal and non-verbal information. We summarize this process:

Proposition 3a: Interviewer's initial impression formation of applicants is a heuristic process and is driven by automatic Type 1 processes.

Proposition 3b: Initial impression formation is a serial process that is influenced by the order in which information becomes available, and stops when sufficient information is available to cue a heuristic output.

Proposition 3c: In job interviews, the observation of a stigmatizing applicant feature will result in an initial impression that is based on immediately available information (i.e., applicant feature and activated associations), whereas impressions will be based on more elaborate information (i.e., verbal content) when stigmatizing applicant characteristics are absent.

Proposition 3d: In job interviews, initial impressions of applicants will be formed faster when there are strong cues available such as stigmatizing applicant characteristics.

Proposition 3e: The speed with which the heuristic output is cued (i.e., initial impression) determines the metacognitive experience of rightness (FOR) associated with the initial impression. When impressions are formed fast (i.e., when stigmatizing applicant characteristics are present), this results in a strong feeling of rightness (FOR), whereas FOR is weaker when impressions are formed slowly (i.e., when stigmatizing applicant characteristics are absent).

Further information gathering and processing. The rapport building stage, in which the interviewer forms an initial impression about the applicant, is followed by the interview stage. According to interview theory, the interviewer and applicant then 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, a preliminary answer to this question has already been proposed through the initial impression, and interviewers 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. Hence, a spillover effect of the initial impression formation process to the interviewer’s information gathering and processing style, as well as the decision-making process, is expected.

When interviewers did not succeed to instantly categorize the applicant into a meaningful (social) category, and the initial impression is related to a weak FOR, 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 stage, 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). This updating of the initial beliefs is possible due to the relative weak initial impression (Hogarth & Einhorn, 1992). However, although interviewers are likely to gather additional information in order to update the existing impression of the applicant when interviewing non-stigmatized applicants, this individuating process is generally not found when the applicant can be categorized based on stigmatizing applicant characteristics (Brewer, Weber, & Carini, 1995; Fiske & Neuberg, 1990; 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), or may be due to a reduced sensitivity to new information as an effect of a strong initial impression (Hogarth & Einhorn, 1992).

Fast and successful categorization of applicants based on their stigmatizing features results in initial impressions with a strong FOR. In reaction to these heuristic responses, Type 2 processes engage in the process of rationalization or justification of the initial impression during the interview. Strong beliefs in the initial impression lower the need to reassess the impressions and result in a preference for confirmatory information (Dipboye, 1982; Dougherty, Turban, & Callender, 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 initial impression or of the stigmatized applicant, Type 2 processes are engaged in justification of the initial impression. Dual-process theory suggest 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, Arbuthnott, & 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 individuation, and indicate that confirmation of the initial impression has occurred.

Proposition 4a: In job interviews, interviewers are less likely to engage in individuation when interviewing an applicant with a stigmatizing feature.

Proposition 4b: Interviewers engage in a confirmatory information gathering and/or interpretation style when interviewing an applicant with a stigmatizing feature.

Final evaluation. 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 interview. 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 a job, and in a broader picture interviewers need to decide how this applicant relates to other applicants for the job. 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 is dependent on the strength of the initial impression.

The initial impression of non-stigmatized applicants is also a heuristic response. However, this response is associated with low levels of confidence, or a weak FOR, as this impression has been generated slowly due to the absence of strong 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 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 FOR.

However, when the initial impression has been formed on the basis of a stigmatizing applicant factor, the interviewer possesses a strong confidence, or FOR, that this impression is correct. When making the final evaluation, the initial impression can therefore be regarded as a default answer and could be accepted by Type 2 processes (Kahneman, 2003b). Alternatively, accounts have been proposed in which Type 2 processes do attempt to alter the response but fail to do so (Bargh, 2007; Thompson, 2009). For example, Type 2 processes can evaluate the gathered information, which is retrieved from memory by Type 1 processes, and produce an alternative judgment to the initial impression. However, the alternative judgment proposed by Type 2 processes is constructed from biased information, and therefore does 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.

An additional account builds on the proposition that initial impressions contaminate the final evaluation in interviews (Levashina et al., 2013). In dual-process theory, and in the tradition of research on heuristics and biases, such contamination is found in the anchoring-and-adjustment heuristic (Tversky & Kahneman, 1974). This account proposes that an attempt to form an alternate judgment by Type 2 processes is limited by the initial heuristic Type 1 response. In other words, the first impression serves as an anchor in the final evaluation, and the interviewer is unable to deviate far from that anchor (Chapman & Johnson, 2002; Hogarth & Einhorn, 1992). Hence, when compared to the limited influence of the initial impression on the evaluation in non-stigmatized applicants, the limited ability to make adjustments (i.e., anchoring) could drive the bias found in interview evaluations of stigmatized applicants.

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 (Baumeister, et al., 1998; De Neys, 2006; Epley & Gilovich, 2006; Muraven & Baumeister, 2000). However, interviewing stigmatized applicants has been found to reduce or deplete the available cognitive resources (Madera & Hebl, 2012), resulting in an decreased ability to adjust the anchor, or resist the appeal of the initial impression with the high FOR, when making the final evaluation (Baumeister et al., 1998).

Proposition 5a: When making the final evaluation of non-stigmatized applicants, interviewers will build on and adjust the initial impression formed during rapport building.

Proposition 5b: When making the final evaluation of stigmatized applicants, initial impressions anchor the final decision as interviewers adjust their initial impressions only to a limited extent.

Interviewer Confidence

One of the observations that inspired Daniel Kahneman and colleagues to pursue their work on heuristics and biases was that confidence and the accuracy of judgments appear to be unrelated (Kahneman, 2003a; Kahneman & Klein, 2009). In the following decades, research has established that people generally tend to be overconfident, and can even show overconfidence in erroneous judgments, a finding that has been replicated in various decision-making domains (Dunlosky & Metcalfe, 2009; Klayman, Soll, González-Vallejo, & Barlas, 1999; Koriat, 2012; Shynkaruk & Thompson, 2006; Wells & Olson, 2003). Extracting this finding to the job interview, and interview bias, this suggests that interviewers may show overconfidence in biased judgments of stigmatized applicants. We propose two underlying processes that may drive interviewer overconfidence in biased judgments.

The first underlying process may be that fast and intuitive judgments trigger bias in decision-making (Evans, 2006, 2008; Kahneman, 2003b; Kahneman & Frederick, 2002; Kahneman & Klein, 2009), and the associated FOR initiates the overconfidence (Shynkaruk & Thompson, 2006; Thompson et

al., 2011; Thompson et al., 2013). This overconfidence makes the decision-maker (i.e., interviewer) resilient to disconfirming information (Sloman, 1996; Thompson, 2009). Although there has been much work on confidence in judgment making, drawing the same parallel in job interview decisions has largely been ignored. When intuitive Type 1 judgments, such as the initial impression, are constructed slowly, they are associated with a weak FOR. Hence, when this initial impression is retrieved from memory during the final evaluation the weak FOR triggers a relative low level of confidence. Adjustments made in the evaluation process likely increase the interviewer's confidence to a baseline-level. However, when the initial impression is constructed on the basis of a stigmatizing applicant feature, the fluency of this process results in a strong FOR. The final evaluation is based, or largely based, on the initial impression and hence includes a strong FOR. This process is likely to result in high levels of confidence, or overconfidence, experienced by the interviewer.

The second underlying process is driven by the behavioral adjustments by the interviewer, in reaction to the stigma, during the rapport-building stage. Specifically, previous studies have related the interviewer's perceived successfulness of the interview, as a measure of confidence, to the quality of the rapport building stage (Chapman & Zweig, 2005). However, when interviewing a stigmatized applicant, we propose that interviewers consciously control their behavior towards the applicant (i.e., Type 2 processes), rather than the automatic Type 1 scripts. Thus, building on the relation between perceived success in establishing rapport and confidence, and the active self-presentation during rapport-building with stigmatized applicants, we propose:

Proposition 6a: Initial impressions that are based on stigmatizing applicant features will result in overconfidence in the interviewer's judgments.

Proposition 6b: Overconfidence in the interviewer's judgments may be mediated by the interviewer's (perceived or actual) successfulness in conveying a positive impression to the applicant during rapport-building.

What about Positive Bias?

A robust framework for biased decision-making in interviews needs to be able to account for both positive and negative bias, as similar processes may drive the decision-making process. However, throughout this framework we have focused on interview bias from the perspective of stigmatizing applicant characteristics, such as obesity or facial disfigurement, whereas one may argue that this is a somewhat one-sided discussion. Indeed, there is ample evidence that “positive” applicant characteristics, such as applicant attractiveness, may also bias interview outcome (Hosoda, Stone-Romero, & Coats, 2003; Langlois et al., 2000). Additionally, whereas the biasing effects of stigmatizing applicant factors is considered to be conventional wisdom (Cable & Judge, 1997), there are findings that are inconsistent with the general perception that this bias is negative, as studies have reported opposite effects (Agthe, Spörrle, & Maner, 2011; Heilman & Saruwatari, 1979; Johnson, Podratz, Dipboye, & Gibbons, 2010). Hence, in addition to accounting for the effects of positive applicant characteristics, the current framework also identifies an important boundary condition.

The core of our framework is the notion that initial impressions are heuristic outcomes that are derived from the interviewer’s impression of the applicant’s physical characteristics (i.e., appearance, stigma), and related abstract properties such as similarity, surprisingness, and affective valence (Kahneman, 2003b). Moreover, we propose that when strong cues are available, interviewers are expected to immediately form robust initial impressions whereas this process is relatively slow and results in less robust initial impressions when such cues are absent. Similarly to stigmatizing cues, characteristics such as attractiveness or prototypicality directly attract attention (Maner, Gailliot, Rouby, & Miller, 2007; Maner et al., 2003), and facilitate social categorization (Halberstadt & Winkielman, 2014). These cues of attractiveness or prototypicality initiate positive stereotypes of traits and values related to attractiveness (Dion, Walster, & Berscheid, 1972), stereotypes that appear to have some validity (Goldman & Lewis, 1977; Lorenzo, Biesanz, & Human, 2010). The perceptual information (i.e., attractiveness) and the related stereotypical information are sufficient to immediately form a heuristic response (i.e., initial impression) of the applicant

and elicits positive affect in the interviewer (Winkielman & Cacioppo, 2001). The relative speed with which the initial impression of attractive or prototypical applicants is formed increases the associated FOR, and serve as a high-anchor. These strong initial impressions may similarly influence the confirmatory information gathering style, or increase the attention to information that confirms the initial impression (Nickerson, 1998).

Studies have also provided evidence that applicant characteristics that are generally considered to be stigmatizing positively affect interview outcome under strict circumstances. For example, physical attractiveness is generally considered to positively bias interview outcome, and thus unattractiveness can be regarded as a stigmatizing applicant factor (Dipboye, 2005). However, unattractiveness was found to benefit female applicants when screening them for a masculine sex-typed job (i.e., director of security; Johnson, et al., 2010). Hence, there are important boundary conditions under which stigmatizing applicant characteristics elicit negative effects, and under which they elicit positive effects in the interviewer's decision-making process.

The current framework proposes that interviewers directly observe the applicant's physical characteristics and from this observation deduct related abstract properties such as similarity and affective valence. Implicit in the conventional wisdom that applicant stigma's elicit negative judgments is that interviewers exclusively hold negative stereotypes of stigmatized applicants that reduce the perceived similarity and is associated with a negative valence. However, stereotypes are not uniformly negative (e.g., Kao, 1995), but are more likely to be mixed (Fiske, Cuddy, Glick, & Xu, 2002). Therefore, under specific conditions, specific stigma may be perceived as a signal of job-related traits (Bangerter, Roulin, & Konig, 2012), and may thus benefit the applicant in the selection procedure. For example, tattoos have been historically perceived as indicators of deviant behavior. However, 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, in interviews for jobs that demands high levels of creativity, visible tattoos may be seen as signals of creativity, and result in positive interview outcomes compared to when such signals are absent. Additionally, the traits and values signaled by a

certain stigma may also increase the perceived similarity to the interviewer (Cable & Judge, 1997; Vivian Chen, Lee, & Yvonne Yeh, 2008), and in doing so positively affect the interviewer's decision (i.e., high anchor). For example, applicant tattoos may be beneficial in job interviews that are conducted by interviewers who value creativity in general, and perceive themselves as creative individuals.

Proposition 7a: Bias induced by “positive” applicant characteristics originates in the initial impression formation process.

Proposition 7b: Under specific circumstances, applicant characteristics that are usually considered to be stigmatizing may have a positive effect on interview outcome.

CONCLUSION

In his autobiography, Daniel Kahneman (2003a) explains that his Nobel prize-winning research on heuristics and biases was inspired by his experiences as an interviewer when assessing candidates for officer training in the Israeli army. Kahneman noted that despite his confidence in the judgments, the actual validity was low. Ironically, despite that the heuristics and biases approach finds its origin in the job interview, and is rooted in dual-process theory, it is rarely applied as a theoretical framework underlying interview decision making and interview bias (Dipboye, et al, 2012). Over time there have been major evolutions in selection, and interviewing has been professionalized much. However, even in spite of these developments one persistent finding has been that stigmatizing applicant characteristics still bias interview outcome. Therefore, the current paper adds to the literature by providing an in-depth framework on the cognitive and social processes, during each stage of the interview, that underlie biased decision-making in job interviews.

For a long time, interviewer decision making has been approached from a rather rationalist perspective as interviewers were expected to base their evaluations purely on job-relevant information exchanged during the interview stage. Such conscious deliberation of facts to form an overall evaluation represents a decision process that is fully influenced by conscious Type 2

processes, and occurs following the interview in a separate decision-making stage. However, findings that the interviewer's initial impression of the applicant predicts interview outcome challenges the rationalist perspective, and also suggests that decision-making, although occurring following the interview, is a dynamic process that spans across the different interview stages.

Building on dual-process theory, we described the influence of the applicant's stigma on processes throughout various interview stages. By outlining the specific role of dual processing mechanisms in each of these stages, as well as across stages, we aim to provide a better understanding of *how* stigmatizing applicant characteristics influence interviewer decision-making in the job interview. We state that interview bias originates in the initial impression formation process, and differentially affects the level of individuation, the information gathering strategy and information processing, and interviewers' final evaluations and decision confidence.

Through this "building block" approach, researchers may further investigate specific processes in each of the interview stages in function of the propositions made by this model. We aim to inspire future attempts to design interventions tailored to specific stages and decision-making processes during the interview. Noteworthy intervention strategies, such as acknowledgment of the stigma by the applicant, and individuation, have been developed from an applicant perspective (Hebl & Skorinko, 2005; Singletary & Hebl, 2009). One intriguing finding was that intervening early in the interview is most effective, a finding consistent with the importance of initial impression formation. Findings that early interventions are more effective fit the presented framework as these directly challenge the interviewer's initial impression, and the initial impression formation process, during rapport building. Applicant-centered intervention strategies, such as acknowledgment, appears to be a fruitful line of further research, and more types of interventions should be investigated.

Intervention strategies could however also focus on the interview procedure, and more specifically the rapport-building stage, when the important initial impression is created by the interviewers. Such structural intervention methods should depart from the source of the stigma (e.g., visual or verbal), and tailor the intervention to reduce or delay the effects of the stigma on impression

formation. This could be achieved by designing interview procedures that allow interviewers to form an initial impression of stigmatized applicants which is uncorrupted by the applicant's stigmatizing feature. For example, if the applicant's stigmatizing feature is exclusively of a visual nature (e.g., obesity, physical disability, facial deformation), then it is possible to remove this cue from the interviewers' awareness or visibility during the initial impression formation process (e.g., no visual contact during rapport-building). Building on the presented framework, this adjustment to the interview procedure should be able to attenuate the effects of the stigmatizing applicant feature on the initial impression, and the initial impression formation process, and therefore reduce the effects on interviewer behavior, cognition, and decision-making, that are currently found in the traditional job interview. Although we present one unified theoretical account underlying bias in interview judgments, and we do not differentiate in the source of the applicant feature (e.g., visual cues such as obesity, or verbal cues such as accents), we are cautious to assume that there would be one single structural intervention method that could reduce bias based on different stigmatizing sources.

Although we present a model that focuses specifically on the job interview, the effect of applicants' stigmatizing characteristics should be considered in a broader context (i.e., type of job; multiple stigma and categorization; e.g., Heilman, 1983; Kulik, Roberson, & Perry, 2007) and a broader selection context. Moreover, initial impression formation during the pre-interview stage also includes the review of the applicant's paper credentials (Dipboye & Johnson, 2013) and social networking sites (Kluemper & Rosen, 2009). There is ample evidence that during this stage bias also occurs based on stigmatizing features (Agerström & Rooth, 2011; Cole, Rubin, Feild, & Giles, 2007; Derous, Ryan, & Serlie, 2014). However, when the stigma can't be observed in résumés (e.g., anonymous job applications; Krause, Rinne, & Zimmermann, 2012) or the stigmatized applicant is invited for an interview, one important question is how this affects the interviewer's initial impression. Or, more generally, future studies should address the question to what extent impression formation occurs prior to the face-to-face interview, and how this

may affect the initial impression formation during rapport-building and interview outcome.

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 facilitates objectivity in the job interview.

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CHAPTER 3

INITIAL IMPRESSION FORMATION DURING RAPPORT BUILDING: ANCHORS THAT DRIVE BIASED DECISION MAKING IN INTERVIEWS ¹

In response to growing concerns regarding the potentially biasing effects of “fast and frugal” judgments made during rapport building, we investigate the origin and development of interview bias throughout the interview. Building on dual-process theory, and the related framework of heuristics and bias in judgments, we show that interview bias against facially stigmatized applicants is anchored in the initial impression formation process. Specifically, Study 3.1 shows that the applicants’ facial stigma disrupts the initial impression formation process (i.e., ability), leading to discrimination. Additionally, Study 3.1 shows that interviewer motivation to seek cognitive closure (i.e., Need for Cognitive Closure) influenced this impression formation process. By introducing a new interview procedure – the partially-blind interview -, we show in Study 3.2 that the presence and visibility of the stigma during the rapport building stage anchors the interview outcome of stigmatized applicants in traditional interviews. Specifically, in traditional interviews bias against facially stigmatized applicants emerges due a lack of adjustment of the initial impression throughout the interview. However, in partially-blind interviewing, interviewer judgments of stigmatized applicants showed a similar evolution as judgments of non-stigmatized applicants, thereby reducing bias.

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INTRODUCTION

Job interviews are generally considered the most widely used selection method to assess applicants' job-relevant characteristics, including personality traits and job related competences (Huffcutt, Conway, Roth, & Stone, 2001). Moreover, the job interview has become such a central tool for screening job applicants, that it is included in nearly all selection procedures (Huffcutt, Culbertson, & Weyhrauch, 2013), and is often the only, or ultimate, selection tool used to make the hiring decision (Levashina, Hartwell, Morgeson, & Campion, 2013). Despite the popularity of the job interview in practice, the interviews' interactional nature may lead to subjectivity in the outcome, resulting in bias and discrimination² (Dipboye & Johnson, 2013).

Research continues to identify different applicant factors that elicit bias. For example, applicant factors such as physical attractiveness (Dipboye, 2005a), ethnicity (Kaiser & Pratt-Hyatt, 2009), obesity (Puhl & Heuer, 2009), and facial stigma (Madera & Hebl, 2012) bias job interview outcomes. However, in order to systematically reduce interview bias, a better understanding of the cognitive and motivational processes that underlie the development of such bias, within the decision maker, is needed (Derous, Ryan, & Buijsrogge, 2013; Huffcutt, Van Iddekinge, & Roth, 2011; Macan & Merritt, 2011).

Given the complex nature of interview bias, we rely on dual-process theory as a framework that integrates the main aspects of interview bias. More specifically, dual-process theory is a widely accepted theoretical framework that has been successfully applied to relevant fields of judgment and decision-making (Evans, 2008), social behavior (Strack & Deutsch, 2004), and in particular reactions to stigmatized individuals (Pryor, Reeder, Yeadon, & Hesson-McInnis, 2004).

Dual-Process Theory

Dual-process theory assumes that human behavior and decision-making is driven by two simultaneously active but distinct processes (Evans, 2008). The first set of processes, which are labeled as Type 1 processes, or reflexive processes, are characterized by their automatic, spontaneous and preconscious

² Bias and discrimination are used interchangeably in this chapter

nature, and operate outside of the individuals' awareness or control. These processes are driven by cognitive scripts and heuristics. Cognitive scripts are seen as knowledge structures that guide the individuals' behavior in familiar situations (Abelson, 1981; Gioia & Poole, 1984), and heuristics are mental shortcuts (i.e., simple procedures or judgmental rules) that generate satisfactory but often imperfect reactions to problems or situations (Tversky & Kahneman, 1974). The outcomes of reflexive processes are called impulses, which can take various forms such as reflexive behavioral reactions, emotions, and intuitions.

The second set of processes, labeled Type 2 processes or rule-based processes, are more controlled processes, embodying intentional and conscious deliberation and reflection of the appropriateness of one's emotions and behavior (Evans, 2008; Pryor et al., 2004). The goal of these processes is to monitor the impulses generated by reflexive processes, and endorse, correct, or override these impulses depending on their appropriateness in a specific situation. If reflexive impulses do not align with the demands of the social situation, or the individual's goals, Type 2 processes will override the impulses and make adjustments, resulting in a temporal pattern of actions (e.g., behavior).

The operation of dual-process theory is best illustrated by the behavioral reactions found towards stigmatized individuals (Pryor et al., 2004). When first observing a stigmatized individual, Type 1/reflexive processes are initiated and directly activate behavioral scripts in reaction to the stigma that include avoidance (Pryor et al., 2004) and direct attention to the stigma (Langer, Fiske, Taylor, & Chanowitz, 1976). Additionally, reflexive processes activate emotions such as disgust and fear (Blascovich, Mendes, Hunter, Lickel, & Kowai-Bell, 2001), and stereotypical thoughts (Krieglmeyer & Sherman, 2012; Wheeler & Petty, 2001). When reflexive behavioral impulses, such as avoidance, are acceptable in a certain situation (e.g., strangers on a subway), Type 2 processes accept these impulses, which results in a general avoidance of proximity (Houston & Bull, 1994). However, when reflexive impulses (i.e., avoidance and fixating on the stigma) are socially undesirable, such as in a direct interactional setting such as the interview, Type 2 processes overrule these impulses. This activation of Type 2 processes results in behavioral adjustments by the interviewer towards the social norm. Moreover, the controlled nature of Type 2

processes results in a reduction of visual attention towards the stigma (Langer et al., 1976), and in approaching rather than avoiding behavioral tendencies (Pryor et al., 2004). The dual-process model of reactions to stigma therefore suggests that the effects of stigma are most invasive early in the interview, which is during rapport building / initial impression formation. Stigma effects decrease over time as the Type 2 processes start to control behavior.

Dual-process theory has driven major scientific developments on decision-making, and more specifically the work on heuristics and bias in decision-making (Evans, 2008; Kahneman & Frederick, 2002; Tversky & Kahneman, 1974). Interestingly, the Nobel prize winning research of Daniel Kahneman, on heuristics and biases in decision-making, was actually inspired by his experiences as a job interviewer (Kahneman, 2003a). Ironically, ever since, this framework, and decision-theory in general, has only rarely been used to account for findings of bias in job interview decisions (Posthuma, Morgeson, & Campion, 2002). Therefore, in the current paper, we aim to increase understanding of the cognitive and motivational aspects of interview bias, by using dual-process theory.

Rapport Building and Interview Outcome

The job interview generally starts with a rapport-building stage, during which interviewers form an initial impression about the applicant (Barrick, Swider, & Stewart, 2010). The human tendency to form immediate impressions of others, objects, or situations, is a trait that is rooted in human evolution (Bar, Neta, & Linz, 2006). This automated process occurs in all social situations in which two relative strangers meet. The speed and unconscious nature with which these initial impressions are formed (Bar et al., 2006; Willis & Todorov, 2006) suggests that Type 1 processes drive initial impression formation, and do so by relying on heuristics in the initial impression formation process.

One heuristic that facilitates social judgments is the attribute substitution heuristic (Kahneman, 2003b; Kahneman & Frederick, 2002). This heuristic proposes that difficult questions that require much information and that cannot be answered directly (e.g., “Is this the best applicant for the job?”) are substituted with easier questions which can be answered intuitively (e.g., “Is this

the right type of applicant for the job?”; Cable & Judge, 1997; Kahneman & Klein, 2009). Such intuitive answers are initially derived from observable cues such as physical characteristics, and related properties such as similarity and affective valence (Kahneman, 2003b). If the heuristic response is considered to be correct, it is casually accepted by Type 2 processes without further adjustments (Evans, 2008; Kahneman & Frederick, 2002). Contrastingly, if the heuristic response is not considered to be correct, Type 2 processes will gather additional information to elaborate on the initial heuristic response, a process which has been labeled as individuation (Claypool & Bernstein, 2014; Fiske & Neuberg, 1990).

The importance of interviewer initial impressions in the decision-making process has recently been demonstrated by Barrick et al. (2010). In their study, Barrick and colleagues showed that interviewers’ initial impressions of applicants, formed during rapport building, are highly predictive of late interview outcomes. They conclude that “fast and frugal” judgments made during rapport building influence interviewer decision making. These findings by Barrick et al. (2010) raised the concern that bias might originate from rapport building (Levashina et al., 2013). The central issue of this concern is that interview outcome may be influenced by the initial impression, and initial impressions are influenced by irrelevant information (i.e., appearance, behavior). This pattern of influences on the interview outcome shows strong similarities to the anchoring-and-adjustment heuristic proposed by Tversky and Kahneman (1974).

Anchoring and adjustment is a robust phenomenon that occurs during judgments and decision-making, and induces bias in those decisions (for an in-depth review of the anchoring heuristic see Chapman & Johnson, 2002). In the process of anchoring and adjustment, irrelevant information which is cued first (e.g., the initial impression), serves as an anchor during the final judgment (i.e., interview decision) by limiting the subsequent adjustment process following the exchange of new information (e.g., interview content). Central to this anchoring process is the motivation of the individual (i.e., willingness) and underlying cognitive processes (i.e., ability) to continue adjusting after a first heuristic

response has been formed (Epley & Gilovich, 2006), a process that may be related to individuation (Fiske & Neuberg, 1990).

In the current work we aim to investigate whether anchoring-and-adjustment drives bias and discrimination in interview outcomes in the context of bias against facially stigmatized applicants. We do so by investigating the two central components of this heuristic, development of the heuristic response (i.e., initial impression), and anchoring in the decision-making process as signaled by a lack of adjustment. In Study 3.1, we investigate the role of the interviewers' motivation (i.e., willingness) and cognition (i.e., ability) in the initial impression formation process. In doing so, we focus on the rapport building stage, and examine the effects of facial stigma on information processing, and assess the influence on the interview outcome. In Study 3.2, we investigate whether anchoring and adjustment drives the interviewer's biased decision-making process, and whether this is a result of the effects of the applicant's stigma during initial impression formation.

The first objective of Study 3.1 is to establish bias against facially stigmatized applicants. Facial stigma are rarely investigated as a source of discrimination, despite the fact that roughly 10% of the world population (Valente, 2009) has some form of facial stigma, such as a Port-Wine Stain (PWS). We hypothesize that:

Hypothesis 1. Raters will report lower intentions to hire a stigmatized applicant compared to their reported intentions to hire a non-stigmatized applicant.

Cognitions Underlying Discrimination

Prior research has shown that facial stigma initially have a strong attention grabbing effect, which decreases over time (Langer et al., 1976). This attention-grabbing effect may elicit processing costs that occur when a person switches attention from one task (e.g., attending auditory information, such as the applicants' answers) to another (e.g., attending a visual stimulus, such as the stigma; Shomstein & Yantis, 2004, 2006). Such involuntary, bottom-up driven attentional distraction, which may be assessed by the amount of fixations to distractors, impairs memory (Ehrlichman & Micic, 2012). Because memory

impairment can be induced by stimulus-driven task switching (Serences et al., 2005), such as the applicants' facial stigma interfering with interview processing, it seems promising to apply this fundamental research approach to the domain of job interview discrimination.

So far, only one study has directly investigated biased attention during job interviews. In an experimental study, Madera and Hebl (2012) showed raters a static photo of a job applicant with or without a facial stigma, and measured whether staring at the stigma influenced interview ratings and memory for the auditory information that was played during the simultaneous presentation of the picture. They found an attention-grabbing effect of stigma with negative effects on memory for interview content, associated with reduced performance ratings. These findings are a first indication of cognitive interference of stigma, yet they also raise two important questions.

A first question relates to the generalizability of the findings to a more natural and dynamic environment which includes movement of objects and targets. A vast body of research discusses the complexity of facial processing (Tsao & Livingstone, 2008). Distinct neural pathways have been identified for invariant (e.g., face recognition) and changeable (e.g., expressions) aspects of faces (Anderson & Van Essen, 1987; Haxby, Hoffman, & Gobbini, 2000), indicating continuous processing of facial features' movement. Given that additional cognitive resources are needed to process dynamic stimuli (Mital, Smith, Hill, & Henderson, 2011; Smith, Levin, & Cutting, 2012), we will assess the effect of visual attention on interview memory and hiring intentions using more dynamic stimuli than photos (i.e., videotaped interviews). We do so because additional resources needed to process dynamic faces may crucially affect the nature and degree of visual distraction by the stigma, and hence of the resulting (discriminatory) job decisions. Based on the mere presence of a facial stigma as a novel stimulus (Langer et al., 1976), and in line with previous findings (Madera & Hebl, 2012), we hypothesize:

Hypothesis 2. The area of the stigma will overall attract more visual attention when a stigma is present compared to when there is no stigma present.

A second question relates to the potential fading effect of stigma on visual attention over time. Previous research showed that behavioral reactions towards stigmatized individuals, such as attention (Langer, et al., 1976), follow a time course that is consistent with dual-process theory (Pryor et al., 2004), implying that strong initial reactions to stigma decrease over time. Building on dual-process theory, and in order to assess the claim that interview bias originates during the rapport building stage (Levashina et al., 2013), we made specific time course predictions on the effect of stigma. Specifically, we expected reflexive reactions to stigma to be active (and interfere) during the rapport building stage (Time 1; T1), leading to more involuntary distractions, than during the subsequent interview stage (Time 2; T2). Hence, we hypothesize that visual attention to the stigma area follows a temporal pattern (Langer et al., 1976, Pryor et al., 2004) such that:

Hypothesis 3. The stigma area will attract more attention during rapport building (T1) compared to the subsequent interview stage (T2), whereas no temporal effect is expected when observing a non-stigmatized applicant.

The distraction of visual attention constitutes a task-switching situation that affects memory (Ehrlichman & Micic, 2012; Olivers, Meijer, & Theeuwes, 2006). However, this relation has rarely been investigated in applied contexts such as the job interview (for an exception, see Madera & Hebl, 2012). On the basis of the findings on task-switching costs, we expect that visual attention effects will trigger corresponding memory effects. Drawing from the dual-process model of reactions to stigma, we expect that especially early information processing, compared to late information processing, will be interrupted due to reflexive reactions to a stigma. Therefore, we hypothesize:

Hypothesis 4. Memory for interview content will be more accurate during rapport building (T1) when the applicant is non-stigmatized compared to when the applicant is stigmatized. This negative effect of applicant stigma on memory accuracy will decrease over time (i.e., in the interview stage; T2).

Building on previous findings that interview recall is positively associated with interview evaluations (Dipboye, Stramler, & Fontenelle, 1984), and given the effect of initial impressions on final interview outcomes (Barrick et al., 2010), we expect that biased job decisions are anchored in initial memory impairment:

Hypothesis 5. The effect of attention to the stigma on hiring intentions is mediated by memory during rapport building (T1), but not [or to a significant lesser extent] during the subsequent interview stage (T2).

Individual Differences in Motivation

A review by Posthuma, Morgeson, and Campion (2002) shows that 42% of all interview-related research has focused on interview bias, whereas only 1% of research emphasized interviewer characteristics. This lack of focus on interviewer characteristics is surprising given the wide range of inter-individual differences that could influence judgments. For instance, the finding that temporary or chronic motivational states of raters affect stereotypes activation and application (Devine, Plant, Amodio, Harmon-Jones, & Vance, 2002; Plant et al., 2009), suggests that interviewers' individual differences in motivation are important when investigating biased decision making.

In order to investigate, and control for, the effects of the individual motivation to process information, the current study assessed the raters' Need for Cognitive Closure (NFCC; Webster & Kruglanski, 1994). NFCC is defined as "an individual's desire for a firm answer to a question and an aversion toward ambiguity" (Webster & Kruglanski, 1994; p. 264), and is particularly related to information processing. Individuals with a high NFCC "seize" on available information, and "freeze" this information to form opinions and decisions.

One of the broadest implications of NFCC is the increased reliance on early cues or information (Webster & Kruglanski, 1994). In job interviews, the rapport building stage is the earliest moment of exchange of information between applicant and interviewer. Therefore we expect that the effect of NFCC should emerge during rapport building, and to a lesser extent during the subsequent interview stage. In the current study we focus on two types of cues, visual (i.e., the stigma) and verbal (i.e., the applicant's answers). Given that

NFCC is related to early cue utilization, it is important to consider the specific sequence in which information (or cues) becomes available during the interview. Visual information, such as the applicant's stigma, is available immediately upon perception of the applicant, and it is processed instantaneously (Thorpe, Fize, & Marlot, 1996). However, verbal information is presented sequentially and thus becomes available more slowly.

Physical features, such as a PWS, are considered to be dominant cues that facilitate heuristic responses such as categorization (Fiske & Neuberg, 1990; Kahneman, 2003b). Therefore, when such visual information is available, raters with a high NFCC require less attention to the stigma (PWS) in order to achieve closure (compared to raters with a low NFCC). When such visual information is unavailable, visual attention to the stigma-area should not [or to a lesser extent] be influenced by the rater's NFCC. We therefore Hypothesize:

Hypothesis 6a: High NFCC is associated with a decreased effect of applicant stigma on visual information processing during rapport building (T1), but not during the subsequent interview stage (T2).

As closure is achieved almost instantaneously when visual information is available (i.e., seize), raters with a high NFCC do not require elaborating on the formed impressions by processing and incorporating verbal information (i.e., they freeze on initial impressions). However, in the absence of strong visual cues (i.e., no stigma), verbal information becomes the earliest available cue. As raters high in NFCC seek to achieve closure by drawing upon early cues, they are expected to engage in more careful processing of the initially presented verbal information when visual cues are absent (i.e., individuation; Claypool & Bernstein, 2014; Fiske & Neuberg, 1990). Therefore, we hypothesize:

Hypothesis 6b. High NFCC is associated with an increased effect of applicant stigma on auditory information processing during rapport building (T1), but not during the subsequent interview stage (T2).

METHOD OF STUDY 3.1

Participants

Sixty adults (46 females) participated in this study. All participants were white, right handed and had normal or corrected-to-normal vision. Mean age was 23.82 years ($SD = 3.54$), and all participants were naive concerning the purpose of the experiment. Participants were industrial/organizational psychology master students who were two months away of obtaining their masters' degree. The participants had received extensive theoretical training in HR practices, and had experience in conducting job interviews from at least eight months full-time internships in HR positions prior to participation in this study. Participants were rewarded course credits for their participation in this study.

Stimuli

In accordance with the stimulus sampling method (Wells & Windschitl, 1999), six white male actors were recruited and trained to act as one of six applicants in the job interview. Pilot testing showed that the six actors did not differ in attractiveness, $F(5,126) = 2.049, p = .12$. All actors followed one of six pre-determined realistic speech scripts, and appeared in both the control and the stigma (PWS³) condition to avoid actor-specific confounds. The scripts were designed to applicants of average quality and a pilot study confirmed this (1 = very low qualified, 10 = very high qualified; $M = 5.63, SD = .7$), and all six scripts were rated as equally qualified $F(5,110) < 1$. Interviews³ were recorded in a professional recording studio under constant lighting conditions with an average length of 401.33 s. ($SD = 36.66$) with no significant differences in length between experimental conditions, $F(1,10) < 1$, indicating adequate similarity. Applicants directly faced the camera to create a first-person interview perspective. Questions were always asked by the same male off-camera interviewer, and followed a standard interview procedure, starting with rapport building (i.e., small talk; T1; $M = 55.58s, SD = 6.89s$), followed by the interview stage⁴ (i.e., discussion of educational history, work experience, etc.; T2; $M = 345.75s, SD = 34.61s$).

³ The PWS was grimed on the applicants' left cheek by a professional make-up artist. Post-study manipulation check showed that all raters recognized the mark as a PWS.

⁴ The PWS was grimed on the applicants' left cheek by a professional make-up artist. Post-study manipulation check showed that all raters recognized the mark as a PWS.

Design and Measures

Study 3.1 used a within-subject design with stigma (control vs. stigma), and interview stage (rapport building vs. interview), as the independent variables. The dependent outcome measures consisted of raters' hiring intentions and two measures of cognitive performance, namely visual attention and interview memory accuracy. Hiring intentions was measured with three items adapted from Stevens and Kristof (1995), namely "Estimate the chance you would: (1) Accept the candidate, (2) Invite the candidate for a second interview, and (3) Reject the candidate (reverse scored). Items were scored on a 5-point Likert-type scale (1 = < 20% chance; 5 => 80% chance). Internal consistency was good ($\alpha = .91$). We measured visual attention by means of number of fixations to the stigma location using the SR Eyelink 1000 eye-tracker (see below). Memory accuracy was measured with 19 multiple (i.e. five) choice items targeting factual information given by the applicant throughout the interview. Two example items are: "In which city is the applicant currently living?" (rapport building) and "What was the applicant's previous job experience" (interview stage)". Cronbach's alpha for memory items was .71. To account for differences in the length of the rapport building stage, and the subsequent interview stage, we calculated proportional scores by dividing the number of fixations (attention) or correct answers (memory) for each interview stage by its length. Finally, Need for Cognitive Closure (NFCC) was assessed with 15 items adapted from Roets and Van Hiel (2011) using a 6-point Likert-type scale. Example items are: "I don't enjoy uncertain situations" and "I feel relief once I have made a decision" (1 = completely disagree; 6 = completely agree). Cronbach alpha was .86. See Table 1 for means, standard deviations, and correlations between the dependent and independent variables in Study 3.1.

Experimental Apparatus

Eye movements and fixations were monitored via a SR Eyelink1000 eye-tracker (Table 2), with a spatial resolution of less than 1/4 degree (eye movements were recorded every millisecond). Viewing was binocular, but only the right eye was tracked. The interviews were presented on a 22-in Philips

202P70 cathode ray tube monitor at a viewing distance of 68 cm with a refresh rate of 85 Hz.

Procedure

Four weeks prior to the experiment, raters completed the informed consent and the NFCC measure. At the start of the experiment, raters were instructed to help a consultancy firm to select a candidate for the position of junior consultant based on pre-recorded interviews. To explain the presence of the eye tracker, instructions stated that the study goal was to investigate whether minimal differences in brightness – as measured by participants’ pupil dilation – influenced the scoring of applicants (cover story). Raters were positioned in the eye tracker and first read the job advertisement. Then, two interviews were presented, one in the stigma conditions and one in the control condition. To control for pairing effects, the interviews were partially counterbalanced resulting in 12 unique candidate-pairs⁵. To avoid order effects, presentation order was counterbalanced within each candidate-pair (i.e. half of the raters first viewed the non-stigmatized applicant, and half first viewed the stigmatized applicant), and post-interview assessment order was randomized. After watching both interviews, raters completed the post-interview memory scale and completed hiring intentions for each candidate separately.

RESULTS OF STUDY 3.1

Hypothesis 1: Hiring Intentions

We first analyzed differences in hiring intentions towards stigmatized versus non-stigmatized applicants. Results showed significantly lower hiring intentions for stigmatized applicants ($M = 3.07$, $SD = 1.26$) than for non-stigmatized applicants ($M = 3.51$, $SD = 1.18$), $t(59) = 2.26$, $p = .03$, $M_{stigma} -$

⁵ Each of the six actors were interviewed in both stigma conditions resulting in 12 interviews divided over two conditions. Interview pairs consisted of one stigmatized and one non-stigmatized applicant. Each applicant appeared twice with, and twice without the stigma, and was paired each time with a different applicant to avoid pairing-effects. For example, the interview of a non-stigmatized applicant A was paired with the interviews of a stigmatized applicant B (Pair 1) and stigmatized applicant C (Pair 2). Then the interview of a non-stigmatized applicant B was not paired with stigmatized applicant A, as this would not be the same as Pair 1, and thus not be unique candidate-pair, but paired with the interviews of a stigmatized applicants C (Pair 3), and D (Pair 4).

Table 1
Descriptive Statistics and Correlations of individual differences and measures in control and stigma conditions

	<i>N</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	<i>M</i>	<i>SD</i>
1. Sex	60	.78	.42		-.29*	.12	.16	.2	.20	.01	.21	.15	.78	.42
2. Age	60	23.82	3.54	-.29*		-.24	-.45**	-.06	-.17	-.15	-.02	-.06	23.82	3.54
3. Experience	60	2.72	.97	.12	-.09		.22	-.05	-.04	.18	.19	.19	2.72	.97
4. Hiring Intentions	60	3.51	1.18	.08	.02	.16		.33*	.14	-.03	.00	.15	3.07	1.26
5. Memory (T1) ^a	60	.58	.29	.21	-.05	.17	.00		.48**	-.34*	-.02	.04	.47	.28
6. Memory (T2) ^a	60	.48	.21	.04	-.19	.08	.05	.07		-.36*	-.14	.28*	.50	.23
7. Fixations (T1) ^a	47 ^b	.06	.07	.15	-.15	.13	.00	-.05	.13		.70**	-.35*	.24	.15
8. Fixations (T2) ^a	47 ^b	.06	.07	.04	-.08	.24	-.07	-.10	.14	.64**		-.23	.12	.10
9. NFCC	60	3.79	.72	.15	-.06	.19	-.04	.42**	.21	-.06	-.16		3.79	.72

Note. Sex (0 = Male; 1 = Female); Interview Experience (0 = No Experience; 4 = Very Much Experience). Means and correlations for the stigma condition are on the top-right, means and correlations for the control conditions 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).

^a Memory and Fixation scores are proportional to rapport building (T1) and interview (T2)

^b Participants with low eye-tracking accuracy (i.e. higher error than 0.5°) were omitted from eye-tracking data analysis. Reasons for low accuracy include subjects' thick rimmed glasses, hard contact lenses, and dark eyelashes. This indicates that missingness is independent of the true fixation implying a random missingness pattern.

Table 2
Description and performance estimates of EyeLink 1000 Tower Mount

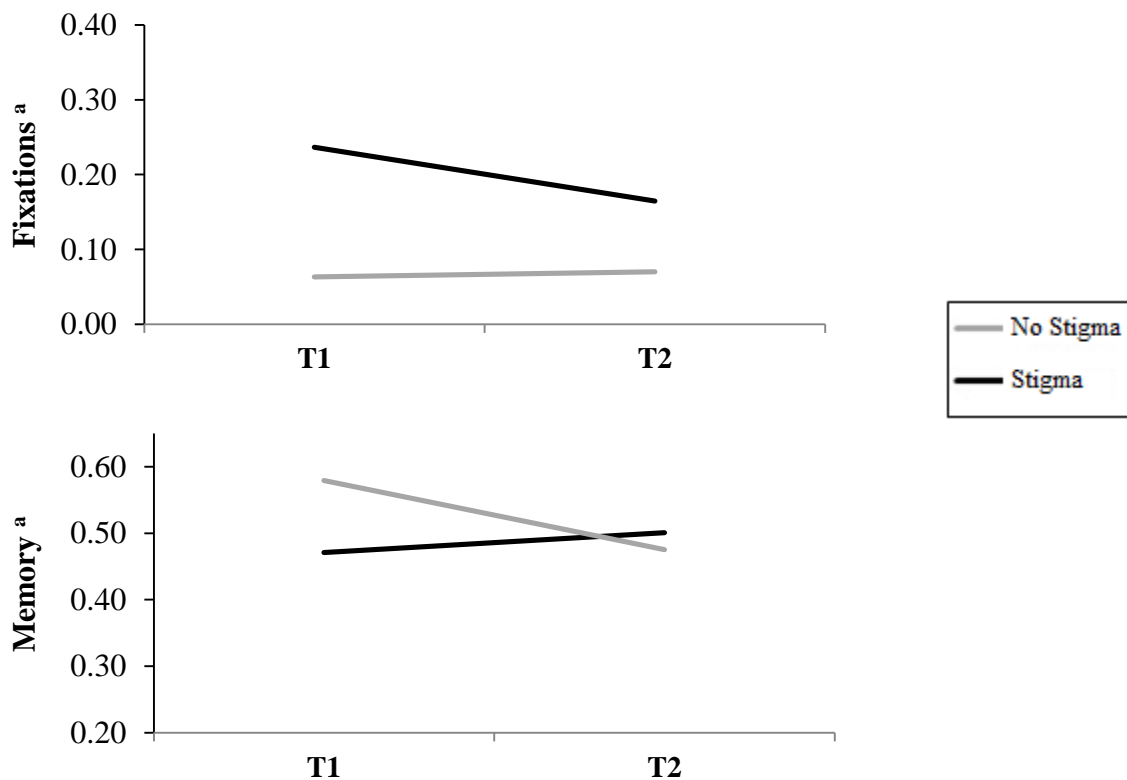
Measure	EL1000 Tower Mount performance estimates	Tower Diagram ¹
Sampling Rate	2000 Hz (Monocular)	
Tracking principle	Pupil with Corneal Reflection	
Accuracy	0.25° – 0.5°	
Resolution	0.02° RMS, micro-saccade resolution of 0.05°	
Sample Delay	$M < 1.3$ msec, $SD < .4$ msec	
Real-Time data	1.4 msec ($SD < 0.4$ msec) @ 2000 Hz	

¹ Diagram obtained from manufacturers' website at: http://www.sr-research.com/mount_tower.html

$M_{control} = 0.44$ (95% CI [0.05,0.83]), $d = .29$; Morris & DeShon, 2002), thereby providing support for Hypothesis 1.

Hypotheses 2 and 3: Effect of Stigma on Visual Attention

Hypothesis 2 predicted that interviewers attended to the stigma-area more when the stigma was present, and Hypothesis 3 expected that this effect would interact with the interview stage. In line with Hypothesis 2, Repeated Measures ANOVA (RM ANOVA) showed that overall interviewers attended the stigma area more when the stigma was present than when the stigma was absent, $F(1,46) = 62.21$, $p < .001$, 95% CI [-0.15,-0.09]), $\eta^2 = .3$. Additionally, results indicated a significant interaction effect between applicant stigma and interview stage on the visual attention to the stigma area, $F(1,46) = 52.38$, $p < .001$, $\eta^2 = .26$. Attention to the stigma decreased over time, with more fixations to the stigma area during rapport building (T1: $M = .24$, $SD = .15$) than during the interview stage (T2: $M = .12$, $SD = .10$), $t(46) = 7.44$, $p < .001$, $M_{T1} - M_{T2} = .12$ (95% CI [0.09,0.15], $d = .94$). No such effect was present for the control condition without stigma, thereby supporting Hypothesis 3 (see Figure 1).



^a Proportional

Figure 1. *Dual-process effects of Stigma in Fixations and Memory*

Hypothesis 4: Memory Accuracy

Hypothesis 4 predicted that memory would be more accurate in the no-stigma condition, particularly so during rapport building. RM ANOVA indicated no significant main effect of stigma, $F(1,59) = 2.8, p = .1$, or interview stage, $F(1,59) = 1.48, p = .23$. However the interaction effect between applicant stigma and interview stage on memory accuracy was significant, $F(1,59) = 6.56, p = .01, \eta^2 = .01$. Memory accuracy for information exchanged during rapport building (T1) was significantly lower in the stigma condition ($M = .47, SD = .03$) than in the non-stigma condition ($M = .58, SD = .03$), $t(59) = 2.57, p = .01, M_{control} - M_{stigma} = .11$ (95% CI [0.09,0.15], $d = 3.67$). For T2, no significant difference in memory accuracy was found between stigma conditions $t(59) < 1$, thereby providing support for Hypothesis 4 (see Figure 1).

Hypothesis 5: Mediating Role of Memory

Hypothesis 5 predicted that the effect of attention to the stigma on hiring intentions would be mediated by working memory during rapport building but not or to a lesser extent during the interview stage. We tested for mediation using the PROCESS macro from Hayes (2013). We used a bootstrap procedure that allows construction of confidence intervals for the different effects, including mediated effects without the assumption of a normally distributed sampling distribution (Preacher & Hayes, 2008). Models and final results are displayed in Figure 2.

During the rapport building stage (T1), attention toward the stigma area (i.e., proportional number of fixations) negatively affected raters' memory performance, whereas memory positively affected their hiring intentions. (indirect effect = $-.16, SE = .08, 95\% CI [-0.33,-0.03]$). After correcting for memory, the direct effect of attention to the stigma area on hiring intentions was non-significant ($B = .16$) implying that fixations only had an effect through memory (complete mediation). No mediation of memory was found in the no-stigma condition.

During the interview stage, for both the no-stigma and stigma condition, there was no indication for a direct effect of fixations on hiring intentions nor for an effect that is mediated by memory. This illustrates that the effect of visual

attention on hiring decision, mediated by interview memory, only occurred with stigmatized applicants during the early stages of the interview (i.e. rapport building), thereby supporting Hypothesis 5 (see Figure 2).

Hypotheses 6a & 6b: Need For Cognitive Closure

In order to analyze Hypothesis 6a and 6b, NFCC was included as a factor in the RM ANOVA's used to analyze Hypotheses 3 and Hypothesis 4. For Hypothesis 6a, results indicated a significant interaction effect between applicant stigma, interview stage, and rater's NFCC on the visual attention to the stigma area, $F(1,46) = 6.12, p = .02$. More specifically, NFCC negatively moderated the effects of stigma on attention to the stigma-area during rapport building ($B = -.07, t(46) = 2.51, p = .02$) but not during the structured interview stage ($B = -.02, p > .3$), thereby providing support for Hypothesis 6a (see Figure 3).

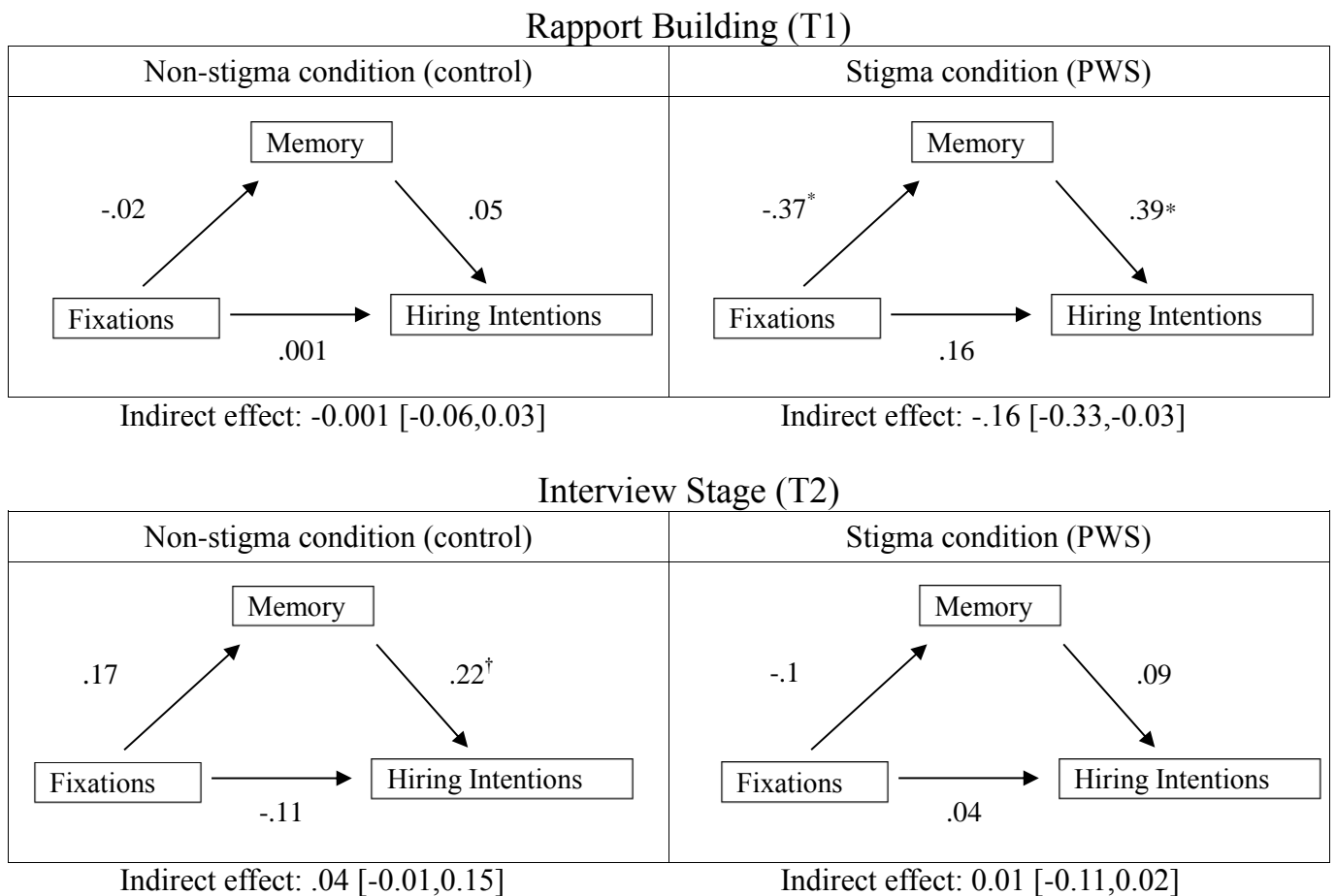
For Hypothesis 6b, results indicated a significant interaction effect between applicant stigma, interview stage, and rater's NFCC on the rater's memory accuracy, $F(1,58) = 6.79, p = .01$. Moreover, NFCC positively moderated the effects of stigma on memory during rapport building ($B = .14, t(46) = 2.14, p = .04$), but not during the interview stage ($B = -.03, p > .5$), thereby providing support for Hypothesis 6b (see Figure 3).

DISCUSSION OF STUDY 3.1

This study adds to the literature by aligning the dual-process theory of reactions to stigma (Pryor et al., 2004) with the distinctive stages of the job interview (i.e., rapport building vs. interview stage). Specifically, Study 3.1 investigated the role of the interviewers' willingness (i.e., motivation) and ability (i.e., cognition) during the initial impression formation of stigmatized and non-stigmatized applicants in relation to biased decisions. On the cognitive level (ability), we found that raters attended to the stigma location three times more when a stigma was present, resulting in decreased memory accuracy for content exchanged during rapport building, which in turn led to decreased hiring intentions. Put differently, we show that discrimination of stigmatized applicants resulted from the inability to engage in individuation due to visual distraction

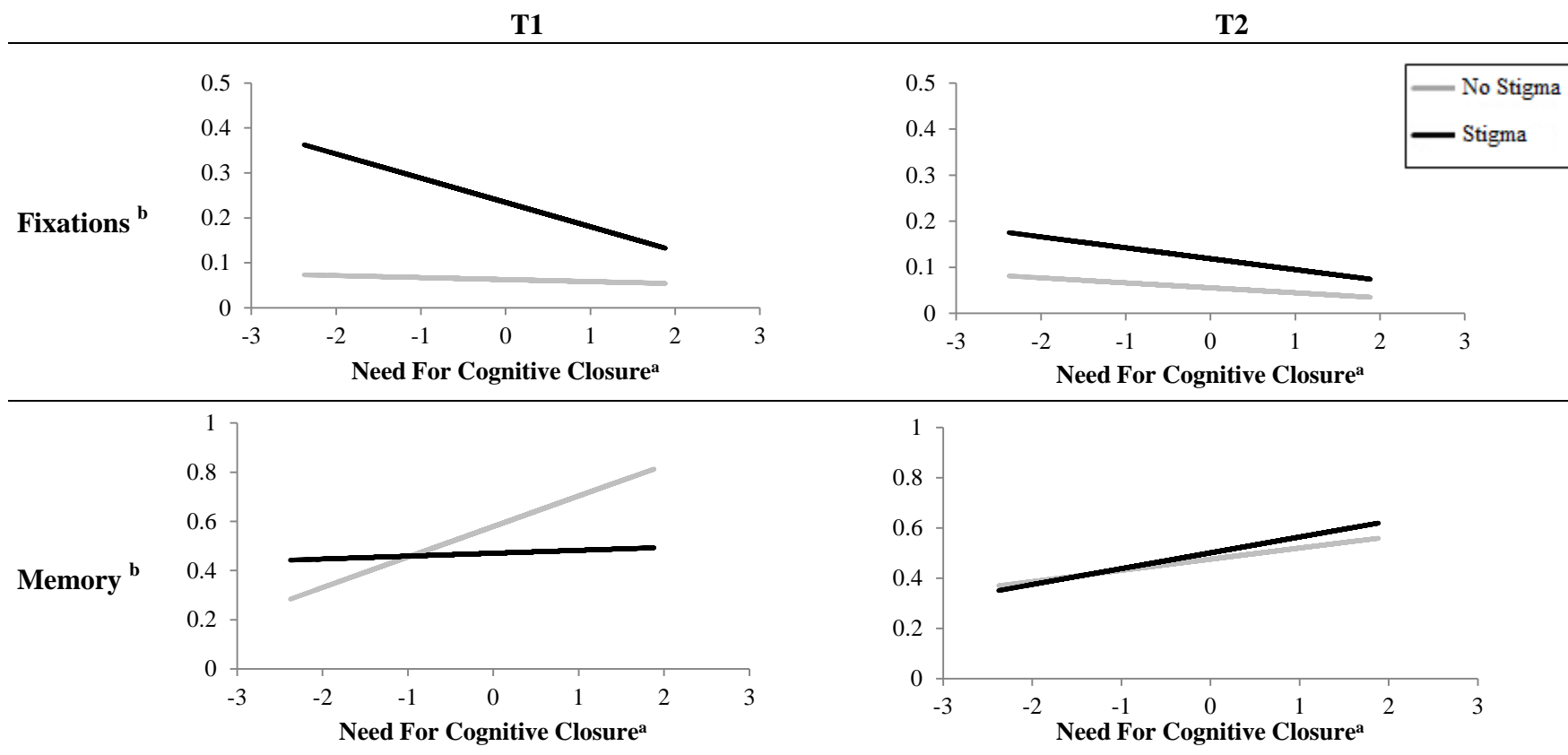
during rapport building / initial impression formation. No such effects were found with non-stigmatized applicants.

At the motivational level, Study 3.1 investigated to what extent individual differences in need for cognitive closure (NFCC) influenced raters' information processing. In line with the NFCC theory (Kruglanski & Webster, 1996), we found that NFCC moderated differences in the processing of visual and verbal information during rapport building. When stigmatizing information was available, raters with high NFCC "seized" on strong visual cues, such as the PWS, as this is processed almost instantaneously (Thorpe, Fize, & Marlot, 1996). Additionally, they "froze" on this information, reducing the need to incorporate verbal information presented during rapport-building



Note. Participants ($n = 13$) with a low eye-tracking accuracy (i.e. higher error) than 0.5° were omitted from the analysis. † $p = .1$, * $p = .02$. Standardized variables were used in this analysis. All models contain Need for Cognitive Closure (NFCC) as covariate

Figure 2. Mediating effect of Memory per stigma condition and interview stage



Standardized, ^bProportional

Figure 3. *Effect of Need For Closure on Memory and Fixations at T1 and T2*

when forming their impression on the stigmatized applicant. On the contrary, when strong visual cues were absent, raters with high NFCC were motivated to attend and process verbal information presented during rapport-building.

In sum, these findings provide insight into the effects of stigma on the initial impression formation process during rapport building / initial impression formation process. We show that both motivation (i.e., willingness) and cognition (i.e., inability to adjust the initial heuristic response) affect the initial impression formation process of stigmatized applicants. The relation of this process to interview outcome suggests that it anchors the interviewers' decision-making process.

STUDY 3.2

The main strength of Study 3.1 was the assessment of the cognitive and motivational mechanisms underlying bias against facially stigmatized applicants. Study 3.1 also differs from previous studies in that videotaped interviews (dynamic information) instead of pictures (static information) were presented to raters. Nonetheless, interviews were relatively short, there was no direct interaction between raters and applicants, raters were trained students, and there was no opportunity for raters to take notes in the eye tracker. To address these potential limitations, Study 3.2 applied a real-life setting, using face-to-face interviews conducted by professional recruiters.

The primary aim of Study 3.2 was also to further investigate whether anchoring-and-adjustment drives interview bias against facially stigmatized applicants. We do so by investigating whether the interference of stigma during rapport building / initial impression formation, found in Study 3.1, anchors the interviewer's decision-making process (i.e., insufficient adjustment), and results in bias. In order to assess anchoring and adjustment, and in line with previous studies, Study 3.2 assessed job suitability at different moments: following rapport building (T1), as a measure of initial impressions, and following the behavioral interview stage (T2), as a measure of interview outcome (Barrick et al., 2010; Cable & Judge, 1997; Higgins & Judge, 2004; Stevens & Kristof,

1995). We expected to replicate findings of bias against facially stigmatized applicants such that:

Hypothesis 1. Stigmatized applicants will be judged less suitable for the job compared to non-stigmatized applicants.

Because Study 3.1 showed that a bias against facially stigmatized applicants originates from reflexive reactions during the rapport building stage (i.e., initial impression formation) we first investigated whether this affected the initial impressions. Specifically, dual-process theory proposes that upon perception of the applicant's stigma, Type 1 processes immediately activate emotions and stereotypical thoughts (Pryor et al., 2004; Wheeler & Petty, 2001). The general perception is that these stereotypes are largely negative in nature, and besides activated they are expected to be applied and in doing so negatively affect the interviewer's initial impression of the stigmatized applicant to ultimately result in bias (Landy, 2008; Levashina et al., 2013). However, stereotype activation does not imply stereotype application (Krieglmeyer & Sherman, 2012), and dual-process theory proposes that stereotype activation provides additional information that facilitates the initial impression formation process resulting in a strong heuristic output (Nordstrom, Hall, & Bartels, 1998; Thompson, Prowse Turner, & Pennycook, 2011; Thompson et al., 2013). Such a strong initial impression is expected to render further elaboration, or individuation, unnecessary, as was shown in Study 3.1. Given this contradiction in expected effects of the applicant's stigma on the interviewer's initial impression of the applicant, we will investigate this. We hypothesize:

Hypothesis 2. Observation of the applicant's stigma will negatively affect the interviewer's initial impression of the applicant following rapport building.

One critical assumption driving the validity of the interview is that interview judgments are based, or at least influenced, by job-relevant information exchanged during the interview stage. Moreover, the initial impressions following rapport building (T1) are largely based on small-talk, and therefore can be described as superficial. However, final ratings (T2) are made

following a discussion of job-relevant topics during the behavioral interview stage, and are therefore characterized as content-laden, representing a more valid judgment of the applicants' job suitability. Hence, as more job-relevant topics are discussed the impressions should positively evolve over time (T1→T2). Yet, the Study 3.1 findings suggest that raters' hiring intentions of stigmatized applicants were anchored in their initial impressions, formed during rapport building, and insufficiently adjusted following the exchange of job-relevant information during the structured interview stage. Therefore we hypothesized:

Hypothesis 3. Overall, ratings of job suitability will be adjusted such that initial impressions following rapport building (T1) will be lower compared to final ratings following the interview stage (T2).

Hypothesis 4. Adjustments in judgments of job suitability from initial impressions to final ratings should be stronger for non-stigmatized applicants, whereas judgments of stigmatized applicants are anchored in the initial impressions and characterized by a lack of adjustment.

If the reflexive reactions to stigma during impression formation, found in Study 3.1, indeed anchor the decision-making process, then eliminating this interference during the initial impression formation process (i.e., during rapport building) should mitigate the anchoring effect. To test this, we introduced partially-blind interviews. Typically, applicants and interviewers have visual contact from beginning to end of the interview (i.e., further referred to as 'traditional interviews'). Yet, in partially-blind interviews applicant and interviewer are visually separated during the rapport building stage of the interview, and visibility is restored at the beginning of the structured interview stage (see Figure 4). This procedural change was inspired by the music industry, where blind auditions were found to reduce bias against female musicians (Goldin & Rouse, 2000).

Because blind rapport building prevents visual attention towards the stigma, and therefore also the disruption of initial impression formation, we expect that this should mitigate the anchoring mechanism described above. Therefore, we hypothesize:

Hypothesis 5. The interaction effect of stigma with the adjustment in ratings of job suitability throughout the interview (T1 → T2) should occur in traditional interviews, but not in partially-blind interviews.

METHOD OF STUDY 3.2

Because Study 3.2 did not require the precise monitoring of online visual attention, some key-modifications were made. First and foremost, the interview setting was designed to reflect real-life practice, and thus face-to-face interviews were conducted by experienced interviewers. The interview was lengthened to 25 minutes, interviewers conducted structured interviews (i.e., behavioral description interview; Janz, 1982), and the interviewers were able to take notes during the interview. As a consequence, memory was not assessed because any effect on memory would be confounded with the amount, type, and quality

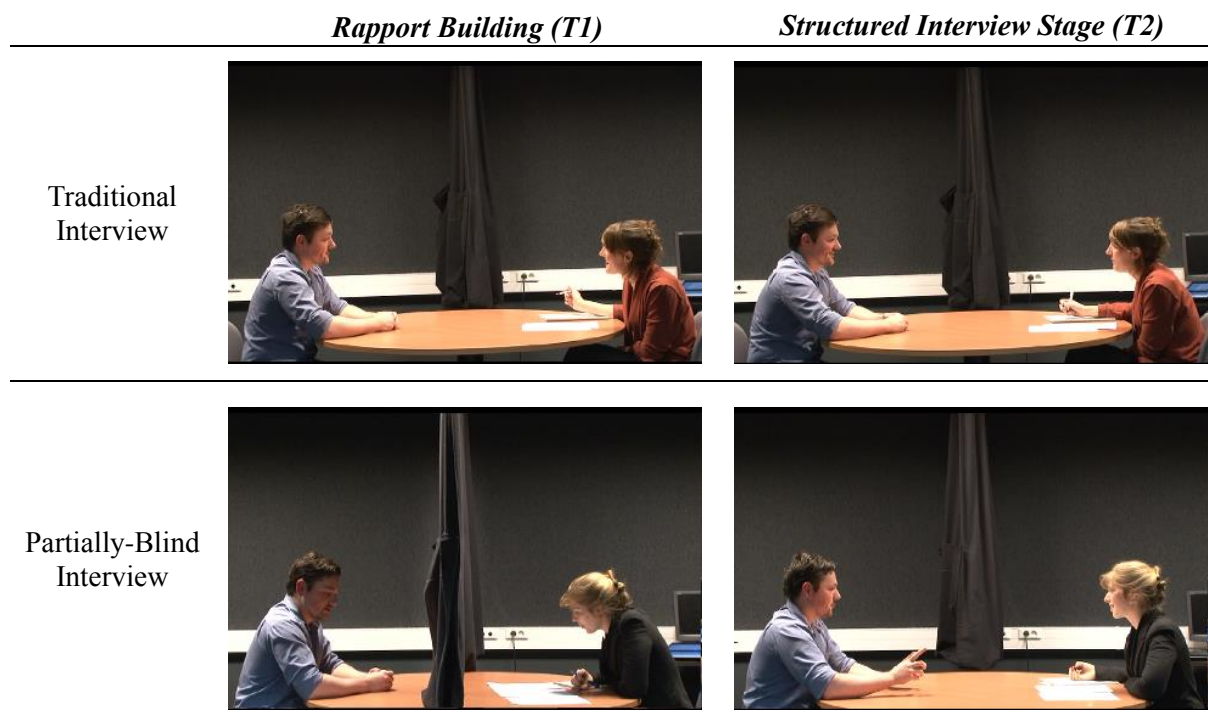


Figure 4. *Illustration of interview procedure - traditional interview (top) and partially-blind interview (bottom)*

of notes taken during the interview (Middendorf & Macan, 2002). Second, relying on the clear attention attraction effects in Study 3.1, eye tracking was not used here. Accurate tracking technology is not yet feasible in real-life

interactions, and the use of classical eye trackers would again require an experimental study. So, in the follow-up study, visual attention for the stigma was manipulated, rather than measured, through different stigma visibility conditions. Third, because Study 3.1 indicated that interviewer's need for cognitive closure (NFCC) was strongly related to individual information processing tendencies, we controlled for NFCC in Study 3.2.

Participants

We recruited 193 interviewers (78.8% females). The mean age of our sample was 26.62 years ($SD = 6.87$), and all interviewers were national residents. The interviewers all had relevant interviewer experience and reported having conducted an average of 30.51 ($SD = 90.01$) interviews during the last year. All interviewers were naive concerning the purpose of the experiment, and none of the interviewers was visually stigmatized.

Design and Measures

Study 3.2 applied a mixed-factorial design with facial stigma (no stigma vs. port-wine stain) and interview procedure (traditional vs. partially-blind) as between-subject factors, and interview stage (T1 vs. T2) as the within-subjects factor, in order to capture the decision making process at two different times throughout the interview. Ratings of job suitability were recorded following the rapport building stage (T1) as a measure of initial impressions, and following the behavioral interview stage (T2), as a final outcome measure. Job suitability was measured with five items adapted from Barrick, et al. (2010). Example items are "How qualified is this applicant for the job?" and "How attractive is this applicant as a potential employee of the organization?" and measured on a 5-item Likert-type scale (1 = *low*; 5 = *high*). Cronbach alpha was .76 at T1, and .90 at T2. Need for Cognitive Closure (NFCC) was controlled for (Cronbach alpha of .89; see Study 1 for more detailed description of this measure).

Applicant Background and Stigma Manipulation

The role of applicant was played by one white, 24 year old male confederate actor. The confederate was unaware of the research hypotheses and goals of this study, and trained to standardize verbal and non-verbal behavior

between the interviews. His 'résumé' was carefully constructed to present an appropriate candidate for an entry level job opening as consultant. This was done in close collaboration with a subject matter expert (SME) who had recruitment experience in a large international HR-consultancy. Specifically, the applicant profile was designed and matched to depict a recent college graduate with a masters' degree in Business Administration and Economics, with above average grades, and a typical level of work experience obtained through summer jobs, internships, and freelance consultancy through the family business.

For the manipulation of the stigma, a temporary tattoo, simulating a red port-wine stain (PWS), was created by a company specialized in temporary tattoos. The PWS was applied to the left hand side of the confederates' face at the height of his eye socket prior to the interviewers' arrival. The confederate was seated in a separate room to avoid any contact with the interviewers preceding the interview.

Procedure

Interviewers were recruited through various professional channels and networks using a cover story that indicated that this study assessed differential effects of interview styles such as the behavioral description interview (Janz, 1982) and situational interviewing (Latham, Saari, Pursell, & Campion, 1980). Moreover, the study was said to be a unique cooperation with a mid-sized consultancy firm who had a job opening for an entry-level consultant.

Prior to arrival of the interviewer, the interview setting was prepared according to the interview procedure by drawing (or removing) a curtain across the table at which the interview would take place. Following their arrival, interviewers were seated on a chair that, when rapport building was blind, was visibly separated from the applicants' chair and entrance of the room. Interviewers signed an informed consent form and were then presented with four envelopes to determine the interview technique that they were going to use. While the interviewers were told that two envelopes would contain situational interview instructions, in reality all envelopes included instructions to use the behavioral description interviewing technique. Interviewers were instructed to start with the rapport building stage, which should be used to get to know the

applicant, and put the applicant at ease through small talk. Following the rapport building stage, they were to continue with the interview stage in which they were to focus on job-relevant competencies and discuss these using the behavioral interview technique. Hereafter, interviewers saw the applicants' résumé and the job description, that specified the required competencies (i.e., ability to work in team and independently, customer focus, problem solving). The interviewers were instructed to carefully read the job description and résumé, take notes when needed on the provided notepad, and prepare questions for both the rapport building and the structured interview while the experimenter was going to fetch the applicant.

When the experimenter returned to the interview room with the applicant, the applicant was seated on the chair opposite to the interviewer, and the experiment leader took up a seat at the opposite end of the room. As instructed, interviewer started with the rapport building for a maximum of five minutes after which the experimenter signaled to the interviewer to terminate the rapport building stage. Following this rapport building, and prior to the behavioral interview, interviewers reported their initial impressions through judgments of applicants' *job suitability* (T1).

Following the initial job suitability ratings, visual contact between interviewer and applicant was restored in blind rapport building, and the interviewer continued with the behavioral description interview thereby focusing on the skills and competencies needed for the job. The maximal duration of this interview stage was 20 minutes, after which the applicant left the room, and the interviewer rated the applicant on *job suitability* (T2). Finally, through a manipulation check all interviewers confirmed having seen the PWS when interviewing a stigmatized applicant. Need for cognitive closure was assessed following participation as part of another survey on an unrelated topic. Table 3 presents the means, standard deviations, and correlations of the independent and dependent variables of Study 3.2.

RESULTS OF STUDY 3.2

Hypothesis 1: Interview Outcome

Hypothesis 1 tested the effects of stigma on job suitability judgments following the interview (at T2). Results showed that stigmatized applicants ($M = 3.81$, $SD = .64$) received significantly lower job suitability ratings than non-stigmatized applicants ($M = 3.99$, $SD = .53$) $F(1,189) = 3.95$, $p = .05$, $M_{no\ stigma} - M_{stigma} = 0.18$ (95% CI [0.01,0.5]), $d = .31$, thereby supporting Hypothesis 1. Further contrast analysis showed that this effect was mainly attributable to judgments in the traditional interview procedure where stigmatized applicants ($M = 3.77$, $SD = .72$) received significantly lower job suitability ratings than non-stigmatized applicants ($M = 4.03$, $SD = .55$) $F(1,94) = 4.14$, $p = .04$, $M_{no\ stigma} - M_{stigma} = 0.26$ (95% CI [0.01,0.5]), $d = .41$. However, no significant difference in job suitability ratings between stigmatized ($M = 3.85$, $SD = .55$) and non-stigmatized applicants ($M = 3.95$, $SD = .51$) was found in partially-blind interviews, $F(1,94) = .6$, $p = .44$.

Hypotheses 2: Initial Impression

Hypothesis 2 predicted a negative effect of stigma on the perceived job suitability following rapport building (i.e., initial impression). Also, we investigated if this possible effect would interact with interview procedure (traditional and partially-blind) at T1 as a more stringent test of the effects of stigma on the interviewer's initial impression of the applicant. Results indicate no significant main effect of stigma on the initial impression $F(1,188) = .02$, $p = .89$, or an effect of interview procedure $F(1,188) = .47$, $p = .5$ on the initial impressions formed by the interviewer. Also, the interaction was not significant, $F(1,188) = 1.58$, $p = .21$. These results suggest that there were no differences in ratings of job suitability following rapport building between stigmatized and non-stigmatized applicants, and that the initial impressions did not depend on, or were influenced by, interview procedure.

Hypotheses 3-5: Anchoring and Adjustment

Hypotheses 3-5 assessed whether initial job suitability ratings (T1) were adjusted at T2 following the exchange of job-relevant information during the interview (Hypothesis 3), whether this effect would interact with applicant stigma (Hypothesis 4), and interview procedure (Hypothesis 5). The result of the regression analysis is summarized in Table 4.

Table 3
Means, standard deviations, and correlations of independent and dependent variables in Study 3.2

	<i>N</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Sex	193	.78	.42							
2. Age	193	26.76	6.94	-.05						
3. Stigma Condition	193	1.41	.49	.02	.26**					
4. Interview Procedure	193	1.5	.5	.07	-.07	-.01				
5. Suitability T1	193	3.62	.41	.01	-.15*	-.01	-.06	.76		
6. Suitability T2	193	3.89	.59	.04	-.14	-.14*	.02	.45**	.9	
7. NFCC	193	3.6	.68	.25**	-.11	.02	.09	.07	-.11	.86

Note. Scale reliabilities are on the diagonal. Sex (0 = Male; 1 = Female); Stigma Condition (0 = No Stigma; 1 = Stigma); Interview Procedure (0 = Traditional Interview; 1 = Partially-Blind Interview). * $p \leq .01$; ** $p \leq .05$.

First we find that interviewers positively adjusted their job suitability ratings throughout interview stages, $F(1,188) = 14.63, p < .001, M_{T2} - M_{T1} = 0.29$ (95% CI [0.85,1.48]), $d = .53$. More specifically, initial impression of job suitability, rated following rapport building, were overall lower than final ratings of job suitability, judged after the entire interview. This finding provided support for Hypothesis 3.

Table 4

Effects of Interview Stage, Stigma and Procedure on judgments of Job Suitability

	df	F	η_p^2	p
Interview Stage	1	14.63	.07	0
Interview Stage * NFCC	1	6.2	.03	.01
Interview Stage * Stigma	1	4.21	.02	.04
Interview Stage * Procedure	1	.52	0	.47
Interview Stage * Stigma * Procedure	1	3.78	.02	.05
Error	188			

Note. The analysis includes Need for Cognitive Closure (NFCC) as covariate

In line with Hypothesis 4, we found a significant interaction effect of interview stage x stigma, $F(1,188) = 4.21, p = .04, M_{\text{control}} - M_{\text{Stigma}} = 0.18$ (95% CI [0.01,0.64]), $d = .29$. Results show that the positive adjustment of job suitability ratings throughout the interview was smaller for stigmatized applicants than for non-stigmatized applicants, thereby supporting Hypothesis 4.

Finally, a significant three-way interaction showed that adjustment of the impression throughout the interview depended on the interview procedure, $F(1,188) = 3.78, p = .05$. Planned comparisons showed that applicant stigma interacted with interview stage for traditional interviews, $F(1,96) = 7.92, p = .005, M_{\text{control}} - M_{\text{Stigma}} = 0.27$ (95% CI [0.1,0.54]), $d = .51$, but not for partially-blind interviews $F(1,96) = .01, p = .94, M_{\text{control}} - M_{\text{Stigma}} = 0.02$ (95% CI [-0.21,0.23]), $d = .04$ (Figure 5). More specifically, in traditional interviews job suitability ratings for facially stigmatized applicants were not significantly adjusted throughout the interview, $F(1,57) = 2.04, p = .15, M_{T2} - M_{T1} = 0.11$ (95% CI [-0.04,0.24]), $d = .18$, whereas for non-stigmatized applicants ratings

were positively adjusted, $F(1,37) = 22.76$, $p < .001$, $M_{T2} - M_{T1} = 0.42$ (95% CI [0.25,0.59]), $d = .85$.

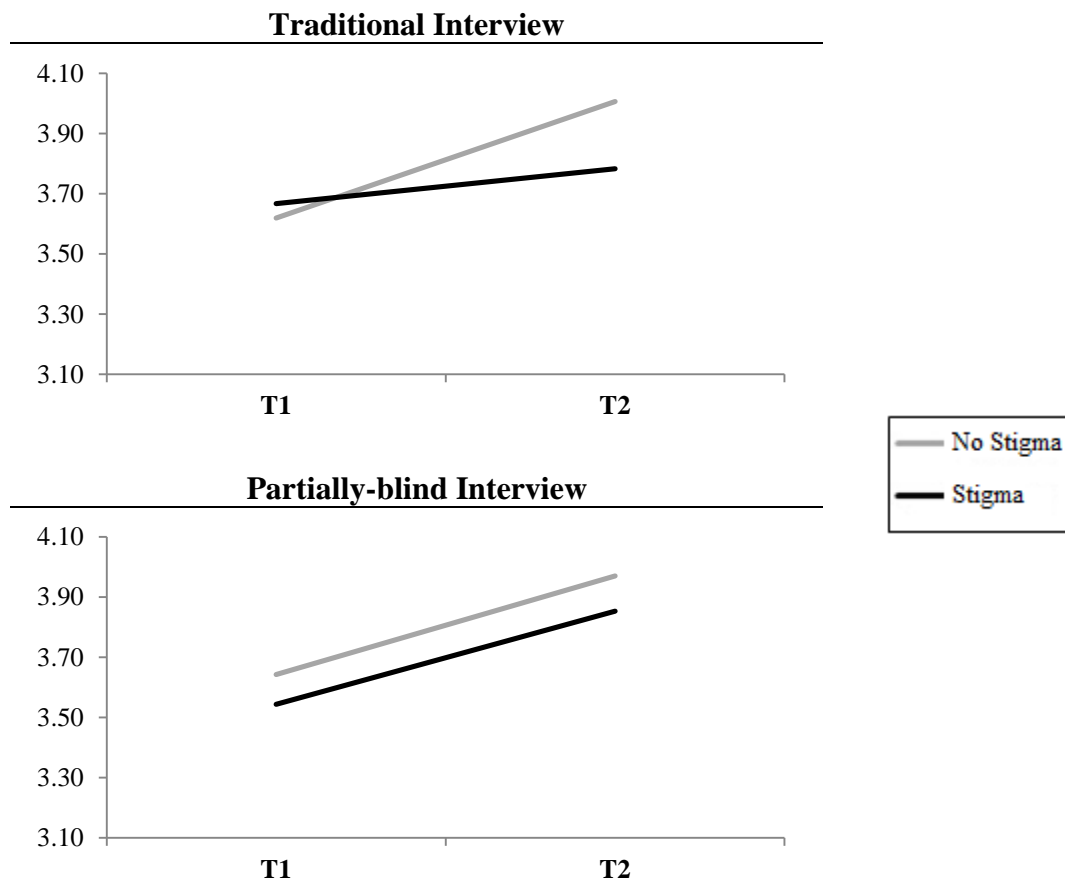


Figure 5. *Differential Effects of Interview Procedure on Stigma Effects in Job Suitability Ratings over Time*

In the partially-blind procedure, ratings for stigmatized applicants showed the same positive adjustments, $F(1,57) = 19.45$, $p < .001$, $M_{T2} - M_{T1} = 0.30$ (95% CI [-0.44,-0.18]), $d = .65$, as that for non-stigmatized applicants, $F(1,38) = 13.81$, $p < .001$, $M_{T2} - M_{T1} = 0.32$ (95% CI [0.17,0.46]), $d = .71$. Overall, these findings provide support for our general hypothesis that the effects of stigma on the impression formation process anchors the final evaluations of the applicant following the structured interview stage.

DISCUSSION OF STUDY 3.2

In Study 3.2, we aimed to investigate whether anchoring, and a lack of adjustment of initial impressions, drives the interviewers' biased decision-

making process, and whether this is a result of the effects of the applicant's stigma during initial impression formation.

We manipulated visual attention towards the stigma rather than measuring it (as in Study 3.1), introducing the partially-blind interview procedure that was inspired by the music industry (Goldin & Rouse, 2000). First, we found that partially-blind interviews are more resistant to bias against facially stigmatized applicants. In traditional interviews, interviewers positively adjusted their judgments of non-stigmatized applicants, whereas such adjustments were absent in judgments of stigmatized applicants. This indicates that, in traditional interviews, initial impressions of stigmatized applicants served as an anchor in the decision-making process. However, in partially-blind interviews, this interaction effect disappeared, and judgments of both stigmatized and non-stigmatized applicants were equally adjusted throughout the interview. So, if one prevents reflexive reactions towards the stigma, and their effects on the initial impression formation process during the rapport building stage, the anchoring effect of unfavorable initial evaluations found in traditional interviews disappears. In this way, partially-blind interviews may result in more equal interview outcomes for stigmatized applicants.

Another contribution of Study 3.2 lies in the more realistic and interactional nature of the interview setting, thereby mirroring daily interview practice. The interviewers in this study were able to ask their own questions, follow-up on answers when needed, and take notes, thereby increasing ecological validity of the procedure. Interviewers were not forced to recite a predetermined set of questions which is typically done in these types of studies. However, we instructed all interviewers to assess all the relevant competencies using the behavioral description interview technique, which is generally considered a structured interview technique (Roth, Van Iddekinge, Huffcutt, Eidson Jr, & Bobko, 2002).

GENERAL DISCUSSION

The current study aimed to investigate whether anchoring-and-adjustment drives bias and discrimination in interview outcomes. In doing so we address the recently voiced concerns regarding the potentially biasing effects of “fast and

frugal” judgments made during rapport building (Barrick et al., 2010; Levashina et al., 2013). We did so by investigating the two central components of the anchoring-and-adjustment heuristic, the development of the initial heuristic response (i.e., initial impression formation process), and anchoring (i.e., lack of adjustment), in the context of interview bias against facially stigmatized applicants.

In Study 3.1, we showed that bias originates in the initial impression formation process, and was related cognition (i.e., ability to form initial impressions) and motivation (i.e., NFCC) of the raters to further develop the initial impression. Indeed, we showed that reflexive reactions to stigma (i.e. visual distraction) disrupted the initial impression formation process during the rapport-building stage. More specifically, facial stigma elicited strong cognitive effects (i.e. visual distraction) which negatively affected memory for verbal information exchanged during rapport building, resulting in decreased hiring intentions. This effect was only present during rapport building, and the negative relation between cognitive effects and hiring intentions only appeared when interviewing stigmatized applicants. Additionally, we show that that NFCC was related to direct closure of the initial impression when stigmatizing visual cues were available (i.e., reduced fixations to the stigma), and a subsequent decreased need to elaborate on the initial impression through processing of individuating information.

In Study 3.2, we expanded these findings to a real-life interview setting and found further support that anchoring-and-adjustment drives bias in job interview outcome. We did so by tracking the evolution of impressions, and by manipulating stigma visibility during rapport building/initial impression formation. Specifically, in traditional interviews, interviewers were found to positively adjust their initial impressions of non-stigmatized applicants following the exchange of job-relevant information during the subsequent interview stage. Initial impressions of stigmatized applicants served as an anchor during later judgments, and the lack of adjustment resulted in bias in the eventual outcome. When preventing the anchoring effect of the applicants’ stigma during the initial impression formation process, by making the rapport building stage blind, judgments of stigmatized applicants followed the same

positive evolution compared to non-stigmatized applicants, thereby dissolving bias against facially stigmatized applicants.

Theoretical Implications

Our results highlight the need to investigate interview bias as a decision-making process rather than regarding it as merely an outcome. During the past decades, interview research has had a strong focus on identifying applicant characteristics that elicit interview bias, and this has expanded our knowledge on the wide variety of groups vulnerable to discrimination. However, despite the obvious social importance of such a research agenda, it may not advance the development of a more systematic framework of processes driving interview bias (Macan and Merrit, 2011).

Given the complex nature of interview bias, in this study, we proposed and investigated a framework of interview bias that is built on the parallels between dual-process theory and the two-stage decision-making in interviews (Dipboye, 2005b). As dual-process theory is widely accepted in the relevant fields of (social-) judgments and decision making (Evans, 2008), and reactions to stigma (Pryor et al., 2004), it provides a strong theoretical framework for investigating the processes that drive interview bias. In the current study we demonstrated the applicability of this framework to account for bias in interview decisions.

Despite the fact that research on heuristics and biases was inspired by Kahneman's experiences as a job interviewer, studies on interview bias have rarely considered heuristics as mechanisms underlying bias in the interview decision-making process. However, the anchoring-and-adjustment heuristic is considered to be a robust phenomenon that drives decision-making in various high-stakes settings (e.g., courtroom decisions; Guthrie, Rachlinski, & Wistrich, 2007), and is able to account for a diverse set of phenomena (Chapman & Johnson, 2002). Building on the proposed dual-process framework, and the finding that anchoring and adjustment drives interview bias, scholars can design theory-driven intervention methods.

We showed that the effect of the applicant stigma affects the interviewer's ability to continue to adjust the initial heuristic response through cognitive

interference. Additionally, we provide evidence that this process is influenced by the interviewers willingness to make adjustments (i.e., NFCC). Hence, theory-driven intervention methods may seek to intervene in both processes in order to reduce bias. For example, the partially-blind interview is designed to mitigate interview bias by reducing the negative effects of applicant stigma on the ability of interviewers to make adjustments to the initial impressions. This intervention allows interviewers to engage in individuation of stigmatized applicants without the interference of the stigma, and in doing so mitigate the anchoring effect found in traditional interviews.

Theory-driven interventions may also seek to influence the interviewer's willingness to adjust the heuristic response. For example, having interviewers reflect on their experience, feelings, and behavior during the rapport-building stage prior to the interview stage may increase their epistemic motivation (Ellis, Carette, Anseel, & Lievens, 2013).

Practical Implications

Despite the pressing need to reduce discrimination in interviews, there is relative little research investigating new interview procedures and techniques designed to decrease bias. Noteworthy intervention methods have been applicant-centered such as acknowledgment of the stigma, or providing additional individuating information to the interviewer (Singletary & Hebl, 2009). However, support for these intervention methods has been mixed, as studies have failed to replicate these findings (e.g., Madera & Hebl, 2012). In line with Hebl and Skorinko (2005), our findings suggest that applicant-centered intervention methods would likely be most effective early in the interview as the interviewers' tendency to seek closure. However, given the speed with which initial impressions are formed, we believe that designing structural intervention methods, such as partially-blind interviews, is a promising avenue for future research. Indeed, the need to reform employment selection, and specifically the selection interview, has been expressed from a legal standpoint before (Cohen, 1987), and important developments such as interview structure have not yet been able to fully reduce bias (Roth et al., 2002). Such structural intervention methods should be designed to reduce the effects of the applicant's stigma on

the initial impression formation process, effects that anchor the judgment of stigmatized applicants.

Although our findings suggest that bias indeed originates during rapport building, we caution against the proposition to eliminate rapport building in favor of interview validity (Levashina et al., 2013). Heuristic judgments, such as initial impressions, are not particularly related to a specific interview stage (e.g., rapport building), but are formed automatically and fast, especially when stigmatizing visual information is available. Thus, eliminating rapport building does not affect the human tendency to make heuristic judgments (e.g., such as initial evaluation of competence; Barrick et al., 2010), and bias may even increase if the initial impression formation process occurs during the actual interview stage. Additionally, such procedural adjustments also minimize the opportunities to develop and apply both applicant-centered and structural intervention methods.

We would welcome efforts that develop different types of standardized rapport-building procedures, such as blind-rapport building, and assess how these alternate report-building procedures affect interview validity. For example, blind rapport-building may be done via telephone, which would be an interesting adaptation to the partially-blind procedure. However, there are important factors to consider, including the delay between the blind rapport-building and the subsequent interview stage (in this study: very short delay); the tasks executed between the rapport-building and the interview (in this study: reporting the initial impressions); and the number of applicants in the procedure (in this study: 1 applicant). Additionally, specific effects of telephone-mediated interviews on interviewers (e.g., attention), and applicants (e.g., intentions to accept the job; Chapman, Uggerslev, & Webster, 2003), are all factors that need to be considered.

Limitations

The current study, like any study, has certain limitations. First, in both studies we apply mock interviews which may limit the generalizability of our findings (Posthuma et al., 2002). However, we aimed to minimize these threats to generalizability by triangulating results over different methodological designs

(within- and between-subject designs), careful stimulus sampling and randomization, the inclusion of both cognitive and motivational aspects in judgment making, and by using trained raters (Study 3.1) and experienced interviewers (Study 3.2). To cope with possible demand characteristics (Orne, 1962), both studies applied a cover story to deceive the participants from identifying the true study aims. Additionally, we believe that reported effects may even be an underestimation as studies on sensitive topics, such as discrimination, suffer from social desirable responding. As it is generally undesirable to appear biased or to discriminate, participants are motivated to appear unbiased which restrict rather than enlarge the observed effects (Colella & Varma, 2001). Furthermore, reported findings are in line with previously studies (Madera & Hebl, 2012), and we triangulated the observed effects over different methodological designs.

CONCLUSION

In conclusion, the interview is one of the most widely used selection tools, and is often applied in the final stages of a selection procedure. The central goal of the interviewer is to make objective judgments of the applicant that are based on the applicant's qualifications, and the interview is thus primarily a decision-making tool. However, theory of decision making has been sparingly utilized to account for interview bias (Posthuma, Morgeson, & Campion, 2002).

Our study is the first to find evidence that anchoring and adjustment drives interview bias. We do so by providing evidence that the two central components of the anchoring-and-adjustment heuristic are present in biased interview decisions. First, we show that interview bias originates in the interviewers' cognition and emotion to adjust the initial impression during rapport building with a stigmatized applicant. The reflexive reactions to stigma, occurring during rapport building, interfere with the impression formation process, and negatively affect interview outcome. Second, we show that this process anchors the interviewers' decision-making process: when the applicant's stigma was able to interfere with the initial impression formation process in traditional interviews, interviewers did not made adjustments to their initial impression throughout the interview. However, allowing interviewers to

construct an initial impression of the stigmatized applicant that is not disrupted by the reflexive reactions to the stigma, results in a decision making process that is similar to non-stigmatized applicants, and thereby reduces – even dissolves – bias against facially stigmatized applicants. Future research must further expand our understanding of the effects of various stigma on the decision-making process by drawing upon a broad theoretical framework such as the dual-process framework that we propose. Such a framework may inspire researchers to design structural and theory-driven intervention methods to mitigate interview bias.

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CHAPTER 4

OFTEN BIASED BUT RARELY IN DOUBT: THE ANCHORING EFFECT OF APPLICANT STIGMA ON INTERVIEWER CONFIDENCE¹

Building on a metacognitive framework of initial heuristic judgments, we investigate the relation between interview bias and interviewers' overconfidence in their (biased) judgments. In total 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 the applicant's facial stigma resulted in biased interview ratings and overconfidence in these judgments. This effect was partially mediated by the interviewer's professional performance during rapport building. Interview procedure moderated both direct and indirect effect (i.e., through initial professional performance) of applicant stigma on interviewer confidence. These results show that interviewer (over)confidence is anchored in the initial impression formation process.

¹This chapter is based on: Buijsrogge, A., Derous, E., & Duyck, W. (2014). Often biased but rarely in doubt: The anchoring effect of applicant stigma on interviewer confidence.

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INTRODUCTION

Confidence plays an important role in many important decision-making situations. Think about the eyewitness or victim of a crime who needs to identify the offender from a line-up, or a contender on a TV-show who is about to give the answer to a question in order to win a large prize. In both cases there will be likely inquiries with regards to their confidence, either by the police officer or judge, or by the TV-show host. Interestingly, one recurring finding here is that confidence and the accuracy of decisions are not as strongly related, and people have a general tendency to be overconfident (Busey, Tunnicliff, Loftus, & Loftus, 2000; Klayman, Soll, González-Vallejo, & Barlas, 1999; Koriat, 2012; Shynkaruk & Thompson, 2006).

Overconfidence in judgments and performance has been found to occur in many different domains including finance and investments (Barber & Odean, 2001), eyewitness testimony (Wells & Olson, 2003), and social judgments (Dunlosky & Metcalfe, 2009; Patterson, Foster, & Bellmer, 2001). Studies on confidence have shown that fast and intuitive judgments trigger overconfidence (Shynkaruk & Thompson, 2006; Thompson, Prowse Turner, & Pennycook, 2011; Thompson et al., 2013). However, fast and intuitive judgments have also been found to underlie bias in decision-making (Evans, 2006, 2008; Kahneman, 2003b; Kahneman & Frederick, 2002; Kahneman & Klein, 2009), and reasoning tasks (Thompson, 2009).

One decision-making situation that suffers from bias is the job interview. Previous studies have clearly shown that interviewer's judgments are influenced by stigmatizing applicant factors such as gender, race, age, disability status and obesity (Macan, 2009). Additionally, in a recent study Madera and Hebl (2012) presented evidence of hiring discrimination against facially stigmatized applicants, and provided a first insight into the cognitive processes driving such discrimination in job interview judgments. In the current study we further elaborate on this finding. We apply the framework of intuitive judgments and overconfidence to the job interview, and more specifically, to interviews in which the judgments are potentially biased.

Building on the premises that interviewer judgments will be negatively affected by the applicant's stigma, we investigate whether interviewing stigmatized applicants will trigger overconfidence in interviewers, and whether this process is anchored in initial impressions of the applicant. In the following paragraph, we first take a closer look at decision-making processes in the job interview.

Job Interview

The job interview has become such a 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). Despite its popularity as a selection tool, the interview has been under much scrutiny for its proneness to bias and discrimination. Applicant factors such as race (Roth, Van Iddekinge, Huffcutt, Eidson Jr, & Bobko, 2002), age (Linder, Graser, & Nosek, 2014), obesity (Puhl & Heuer, 2009), and facial stigma (Madera & Hebl, 2012) bias interviewer decisions negatively.

The interview is generally divided into three successive stages (Dipboye & Johnson, 2013; Dipboye & Macan, 1988; Macan & Merritt, 2011). The first stage is the pre-interview stage during which interviewers review the applicant's paper credentials (e.g., resume), and rapport-building which covers the first few minutes of the actual interactional interview. Rapport building is considered as chit-chat about superficial topics (e.g., hobbies) to reduce applicant nervousness, and build a temporary relationship (D. S. Chapman & Zweig, 2005). The second stage is the interview stage 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. The last stage is the post-interview stage, in which interviewers make their final judgments of the applicant.

Although researchers and practitioners always assumed that interview decisions are based on the information exchanged during the interview, recent research has undermined this assumption. Initial impressions, formed during rapport building, predict interview outcome (Barrick, Swider, & Stewart, 2010).

This has raised concerns about the possible contaminating nature of rapport building, and initial impressions, on interviewer decision making (Levashina, Hartwell, Morgeson, & Campion, 2013; McCarthy, Van Iddekinge, & Campion, 2010). Indeed, initial impressions are formed very quickly (Bar, Neta, & Linz, 2006; Willis & Todorov, 2006), and even behaviors as small as a handshake influence how applicants are perceived (Stewart, Dustin, Barrick, & Darnold, 2008), suggesting that initial impressions are intuitive rather than content-driven and thoughtful. Hence, similar to behaviors the applicant's appearance can directly influence interviewer decision-making and result in biased decisions. In the current study we build on previous findings that applicant facial stigma (i.e., a port-wine stain; PWS) result in biased interview judgments (Madera & Hebl, 2012). On the basis of this research we hypothesized and found in Study 3.2 that stigmatized applicants were judged less suitable for the job compared to non-stigmatized applicants.

Bias in interview judgments is not new. In fact, Nobel prize winner Daniel Kahneman founded his heuristics and biases research on his experiences as an interviewer in the Israeli army (Kahneman, 2003a). He was intrigued by his own perceived ability to foretell the performance of each candidate, and the powerful conviction, or confidence, in his judgments. Therefore it is somewhat ironic that research on the job interview has only rarely build on dual-process theory, and Kahneman's heuristics and biases approach. Hence, in the current study we draw on dual-process theory, and the heuristics and bias approach, to investigate interviewer overconfidence in biased judgments.

Heuristics and Bias

Heuristics were introduced in psychology by Tversky and Kahneman (1974). They defined heuristics as simple procedures, or judgmental rules, that offer often imperfect but quick and satisfactory reactions to certain situations or problems. Heuristics are executed by automatic uncontrolled processes that are captured under dual-process theory under the term Type 1 processes (Evans, 2006, 2008; Evans & Stanovich, 2013; Kahneman & Frederick, 2002). The execution of heuristics by Type 1 processes result in an automated response which is termed intuitive as there has been no conscious processes (i.e., Type 2

processes) involved. Kahneman (2003) proposed that heuristic responses or output 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. Drawing parallels with interviewer's initial impressions of applicants, these can be seen as heuristic responses that are influenced by impressions of attributes of the applicant such as a handshake, or a facial stigma, and the abstract reactions to the applicant such as happiness or fear.

Each heuristic response is accompanied by a metacognitive intuition regarding the rightness of the response. This feeling of rightness (FOR; for an excellent review see Thompson, 2009) is considered as a cue that the response is correct. The fluency with which the heuristic responses are achieved determines the strength of the FOR, which in its turn again influences further elaboration on the response (Thompson et al., 2013). Fast or fluent heuristic responses result in a decreased need to elaborate on the answer as individuals are primed with the feeling that the correct answer is retrieved (i.e., strong FOR). Contrary, slow heuristic responses result in the need to elaborate by including additional information that is or becomes available as individuals are primed with the feeling that this initial answer might not be correct (i.e., weak FOR). In sum, strong feelings of rightness of one's heuristic response will decrease one's effort to elaborate on the answer, and generate a tendency to accept the answer as correct.

In social judgments, such as the interviewer's initial impression of an applicant, a similar process has been suggested (Fiske & Neuberg, 1990). When first observing an applicant (i.e., target), the interviewer (i.e., observer) attends to cues that are immediately observable such as appearance and initial behavior. Strong cues, such as a PWS, trigger fast social categorization (i.e., heuristic response), and activates affective and cognitive responses including fear, disgust, and stereotypical thinking (Blascovich, Mendes, Hunter, Lickel, & Kowai-Bell, 2001; Pryor, Reeder, Yeadon, & Hesson-McInnis, 2004). If such strong cues are absent, the interviewer will require additional information before the applicant can be categorized in a meaningful social category (i.e., individuation). Hence, in terms of metacognitive intuition, the fluent

classification of the stigmatized applicant results in a strong FOR, and the slow classification of non-stigmatized applicants in 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, the fluency with which the stigmatized applicant is categorized, and the accompanying strong FOR, trigger high levels of confidence in the interviewer, even despite the negative stereotypical content of the memory (Busey et al., 2000; Koriat, 1995, 1997; Thompson, 2009). Therefore we hypothesize:

Hypothesis 1. Interviewers will report higher levels of confidence after interviewing a stigmatized applicant than after interviewing a non-stigmatized applicant.

Anchoring and Adjustment

Anchoring and Adjustment is one of the well-known heuristics introduced by Tversky and Kahneman (1974). Albeit most of the work on anchoring has included numerical judgments, there are striking similarities with the interview process, and the interviewer's judgments. This heuristic proposes that in a certain decision making procedures (e.g., interviews), salient but irrelevant information is cued first (e.g., initial impression), and subsequently serves as an anchor for the eventual outcome or decisions. Indeed, previous research has shown that interviewer judgments (i.e., is this applicant suitable for the job) are influenced by initial impressions which are based on irrelevant information (Barrick et al., 2010). Hence, in the terms of Chapman and Johnson (2002), we can define the interview as an anchoring procedure as there is an irrelevant cue (i.e., initial impression) prior to the final judgment which is in line with the two-step procedure proposed by Tversky and Kahneman (1974). Hence, the first step is the presentation of the anchor, or irrelevant information, which in the interview is the initial impression of the applicant. Anchoring as a psychological process then proposes that the irrelevant information serves as an initial value (i.e., anchor), from which later decisions evolve (i.e., adjustment).

However, the extent to which an individual is able to make adjustments is in part dependent on the properties of the initial impression. Indeed, research has shown that when individuals truly believe in their initial heuristic response, they

will to some extent still express believe and confidence in this initial response even after contradictory or disconfirming evidence has been presented (Sloman, 1996; Thompson, 2009). Hence, the effects of strong heuristic outcomes, such as initial impressions of stigmatized applicants, anchor later judgments and the corresponding confidence associated with these judgments. In order to test if interviewer confidence is rooted in the initial impressions, and reduce the effects of the applicant's stigma on interviewer overconfidence, we propose partially-blind interviews as an alternative for the traditional interview procedure. Compared to the traditional 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. Building on the anchoring process we predict that this process subsequently reduces the effects of the PWS on the interviewer's post-interview confidence.

Hypothesis 2. Applicant stigma has a strong positive effect on interviewer confidence only when visible during rapport building / impression formation (i.e., traditional interviews) and not when not visible during rapport building / impression formation (i.e., partially-blind interviews).

Interviewer Evaluations of the Interview

Interviewers evaluate the degree to which an interview was successful to a large extent on the quality of the rapport building stage (D. S. Chapman & Zweig, 2005). This quality is deducted from the extent to which the interviewers were successful in establishing a superficial relationship with the applicant. Research on the dynamic aspect of the interview has indicated that interviewers have succeeded at establishing this relationship when they are perceived to be

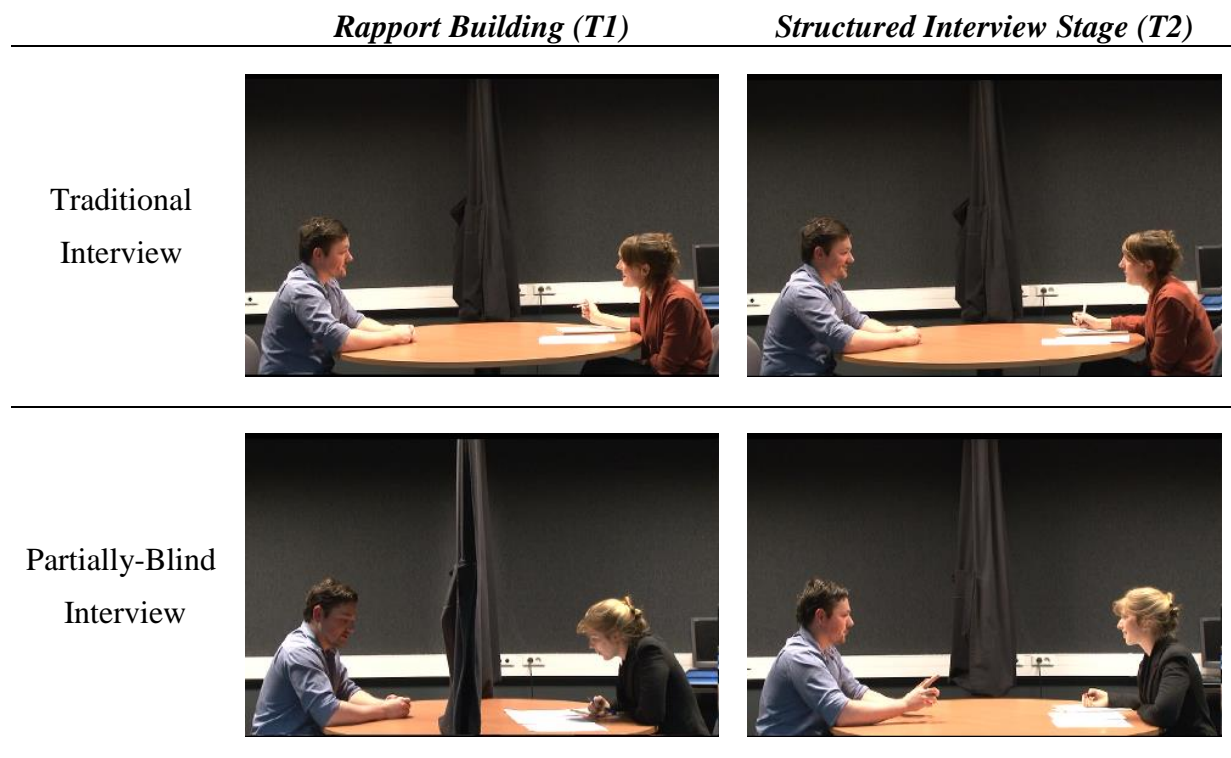


Figure 1. *Illustration of interview procedure - traditional interview (top) and partially-blind interview (bottom)*

warm and friendly as well as knowledgeable and professional (D. S. Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005; Derous, 2007; Dipboye & Johnson, 2013; Liden, Martin, & Parsons, 1993). Whereas such self-presentation for interviewers is considered as an automated process in routine situations (Abelson, 1981; Gioia & Poole, 1984; Tice, Butler, Muraven, & Stillwell, 1995), the applicant's stigma interferes with this 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 (Dipboye & Johnson, 2013; Myers et al., 2008), and their goal not to be perceived as discriminatory (Wheeler & Petty, 2001). However, when interviewers are unaware of the applicant's stigma during partially-blind interviewing, these motivations are not activated and will therefore have no effect of applicant stigma on 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:

Hypothesis 3. Interviewers' professional performance during rapport building will be evaluated more positively when dealing with a stigmatized compared to a non-stigmatized applicant in traditional 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 (D. S. Chapman & Zweig, 2005). 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 which is shown in Figure 2. We hypothesize:

Hypothesis 4. The interaction effect between applicant stigma and interview procedure will affect interviewer confidence directly, and indirectly through initial professional performance.

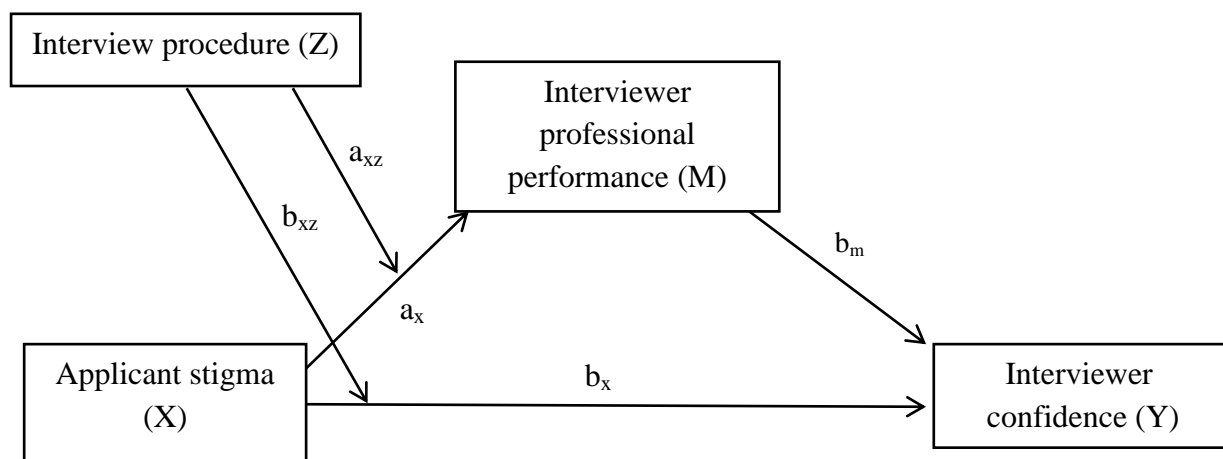


Figure 2. *Hypothesized moderated mediation model*

METHOD

Participants

The sample of Chapter 4 is the same sample as reported in Study 3.2 ($N = 193$ interviewers). The mean age of our sample was 26.62 years ($SD = 6.87$), 78.8% were female, and 100% white-Caucasians. All were experienced interviewers with a reported average of 30.51 ($SD = 90.01$) job interviews over the past 12 months. 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

As detailed in Study 3.2, 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

As reported in Study 3.2, we applied a 2 (facial stigma: no stigma vs. port-wine stain) x 2 (procedure: traditional vs. partially-blind interview procedure) between-subject design. The dependent variables (i.e., interviewer professional performance, interviewer confidence) however differ from those reported in Study 3.2. Moreover, 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 ($\alpha = .89$; "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").

Interviewer ratings of applicant job suitability were recorded following the complete interview (see Study 3.2 for a detailed description), and applied as a control variable in this study.

Finally, interviewers' confidence was recorded using four five-point Likert-type scale items (1 = *Absolutely disagree*, 5 = *Absolutely agree*). Confidence was assessed through task-specific self-assessment of confidence ($\alpha = .81$; "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"). See Table 1 for means, standard deviations, and correlations of independent and dependent variables.

Procedure

The procedure was largely the same as that of Study 3.2, except for the administration of the dependent variables. The University of Ghent 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. Experienced interviewers were contacted through e-mail and other professional channels using a cover story. The cover story suggested that we were studying the differential effects of interview styles in a behavioral description interview (Janz, 1982) vs. situational interviewing (Latham, Saari, Pursell, & Campion, 1980), on applicant reactions and feedback. Moreover, the study was said to be in cooperation with a consultancy firm and the study would involve real applicants who had applied for a job opening as an entry-level consultant.

Table 1

Descriptive Statistics and Correlations of Dependent and Independent Variables

	<i>N</i>	<i>M</i>	<i>SD</i>	1	2	3	4	<i>M</i>	<i>SD</i>	<i>N</i>
1. Stigma	96	.21	.98		-.09	-.04	.04	.20	.99	97
2. Job Suitability	96	3.87	.67	-.19 [†]		.18 [†]	.32 ^{**}	3.89	.53	97
3. Professional Performance	96	3.25	.66	.24 [*]	.21 [*]		.32 ^{**}	3.25	.58	97
4. Interviewer Confidence	96	3.51	.49	.35 ^{**}	.37 ^{**}	.4 ^{**}		3.44	.47	97

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)

In the partially-blind interview condition, a curtain was drawn across the interview table. This manipulation of the interview procedure was inspired by historical developments in the music industry, in which blind auditions were found to reduce gender bias and increase objectivity in selection (Goldin & Rouse, 2000). Interviewers were taken to the interview room by the experiment leader, and were seated on the chair that was furthest away from the entrance. The chair was positioned to ensure visual separation from the applicant prior to, and during, rapport building in the partially-blind interview condition. In line with the cover story, and prior to the arrival of the applicant, interviewers were presented with four envelopes that would randomly determine the interview technique they were supposed to use. While interviewers were under the impression that two envelopes would contain situational interview instructions, all four envelopes contained instructions to apply the behavioral description interviewing technique. Instructions indicated that interviewers were required to start with five minutes of rapport building, in which light topics were to be discussed including hobbies and interests. Following a short break, interviewers continued with the behavioral interview stage. During this stage, they were instructed to focus on job-relevant competencies that were specified in the job description using the behavioral interview technique. The time limit for this behavioral interview was 20 minutes.

Following these instructions, interviewers were presented with the applicant's resume and the job description. 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, interviewers 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. Finally, interviewers were instructed to take notes when desired. Then, the experimenter indicated that the applicant had arrived in a separate room, and that s/he was going fetch the applicant.

When the experimenter and applicant entered the interview room, the applicant was seated on the chair opposite to the interviewer. The interviewer started with the rapport building, and after five minutes the experimenter signaled to the interviewer to terminate the rapport building stage. Following

this rapport building, and prior to the behavioral interview, applicants rated the interviewer's professional performance during rapport building. After having made the required ratings, visual contact between interviewer and applicant was restored for those in the partially-blind condition, to continue with the behavioral description interview. Following the behavioral description interview, the applicant left the room. The interviewer then rated the applicants' job suitability, reported their confidence, and filled-out a manipulation check concerning the observation and correct identification of the applicant's stigma ².

RESULTS

Hypothesis 1 and 2: Interviewer Confidence

Hypothesis 1 predicted that following traditional interviews, interviewers would report higher levels of confidence after interviewing a stigmatized applicant, and Hypothesis 2 expected this effect to interact with interview procedure. As decisions 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 $F(1,189) = 9.1, p = .003, 95\% \text{ CI } [-0.81,-0.17], \eta^2 = .05$. As can be seen in Figure 3, in traditional interview procedure the interviewers reported a higher levels of confidence after interviewing a stigmatized applicant ($M = 3.44, SD = .6$) than after interviewing a non-stigmatized applicant ($M = 2.96, SD = .65$), $F(1,93) = 24.73, p < .001, M_{\text{no stigma}} - M_{\text{stigma}} = -0.47$ (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 ($M = 3.15, SD = .77$), $F(1,94) = 0.45, p = .51, M_{\text{no stigma}} - M_{\text{stigma}} = -0.16$ (95% CI [-

² 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 observing a PWS.

0.3,0.15]), $d = .25$. Overall, these analyses provide support for hypotheses 1 and 2.

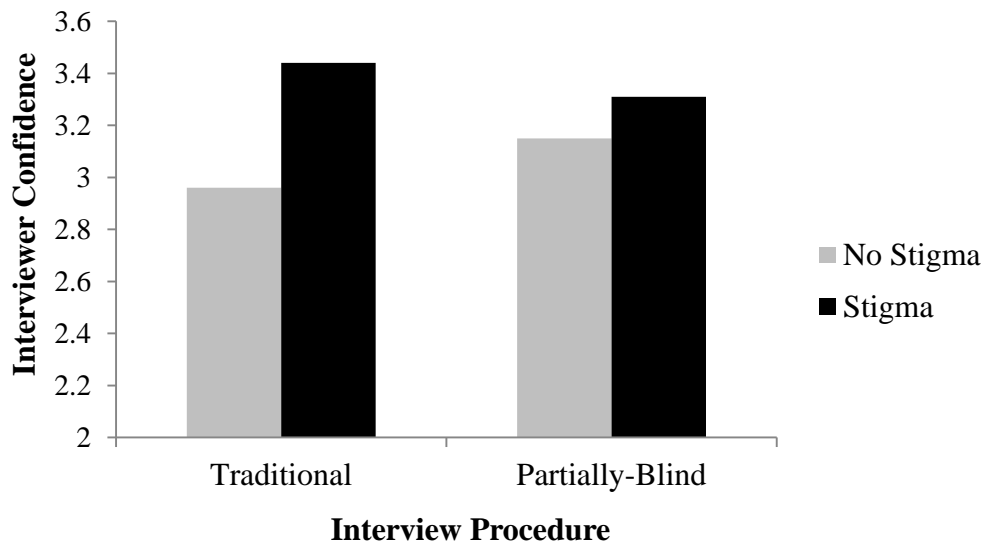


Figure 3. Effect of applicant stigma on interviewer confidence in traditional and partially-blind interview procedure

Hypothesis 3: Interviewer Professional Performance

Hypothesis 3 predicted an interaction effect between applicant stigma and interview procedure on the interviewer's professional performance. As hypothesized, the results indicated a significant interaction effect between applicant stigma and interview procedure on interviewers' professional performance $F(1,189) = 4.0, p = .05, 95\% \text{ CI } [-0.56, -0.01], \eta^2 = .02$. As can be seen in Figure 4, in traditional interview procedure interviewers received higher ratings on professional performance following rapport building with a stigmatized applicant ($M = 3.6, SD = .27$) than during rapport building with a non-stigmatized applicant ($M = 3.36, SD = .69$), $F(1,94) = 5.91, p = .02, M_{\text{no stigma}} - M_{\text{stigma}} = -0.24$ (95% CI [0.05, 0.44]), $d = .46$.

Table 2. *Effect of Applicant Stigma on Interviewer Confidence, Mediated by Professional Performance and Moderated by Interview Procedure*

Model	<i>B</i>	<i>SE</i>	<i>t</i>	<i>R</i> ²
Mediator variable model: Interviewer Professional Performance				.08**
Constant	-1.48	.46	-3.19**	
Stigma (<i>a_x</i>)	.14	.07	1.93	
Procedure (<i>a_z</i>)	-.04	.07	-.51	
Stigma x Procedure (<i>a_{xz}</i>)	-.16	.07	-2.25*	
Suitability Rating (control)	.37	.12	3.18**	
Dependent variable model: Interviewer Confidence				.28***
Constant	-2.24	.42	-5.31***	
Professional Performance	.25	.06	3.84***	
Stigma (<i>b_x</i>)	.23	.06	3.56***	
Procedure (<i>b_z</i>)	.04	.06	.7	
Stigma x Procedure (<i>b_{xz}</i>)	-.16	.06	-2.46*	
Suitability Rating (control)	.57	.11	5.28***	
Direct effects of Stigma on Interviewer Confidence				
(-1) Traditional Interview	.39	.09	4.18***	
(+1) Partially-blind Interview	.07	.09	.8	
Indirect effects				
	Bootstra p indirect effect	Bootstra p SE	Bootstrap LLCI	Bootstrap p ULCI
(-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

† $p < .1$; * $p < .05$; ** $p < .01$; *** $p < .001$

However, partially-blind interviews did not result in difference in ratings of professional performance following rapport building with stigmatized applicant ($M = 3.43$, $SD = .4$) and the non-stigmatized applicant ($M = 3.46$, $SD = .55$), $F(1,94) = 0.15$, $p = .7$, $M_{\text{no stigma}} - M_{\text{stigma}} = 0.03$ (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.

Hypothesis 4: Direct effect and First Stage Moderation Model

Finally, we investigated the direct effect of applicant stigma on interviewer confidence, and the indirect path mediated by interviewer initial 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, the mediator, interviewer professional performance, significantly predicted interviewer confidence, providing support for the proposed direct and first-stage moderation model.

DISCUSSION

Literature on decision making have yielded consistent indications of overconfidence in judgments and performance in various domains. For the first time, we investigated interviewer overconfidence in the job interview domain, and more specific in relation to biased interview decisions. Building on a metacognitive framework of initial heuristic judgments, and instant categorization of stigmatized applicants, we focused on the interviewers' confidence following the interview. Additionally, we investigated whether interviewers' success in establishing rapport with the applicant mediated this relationship. Finally, through an adapted interview procedure we investigated whether the interviewer's overconfidence was due to anchoring of the initial impression formation.

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; Cohen, 1987). Indeed, we previously presented evidence for bias against facially stigmatized applicants in traditional interviews (see Study 3.2). Building on these previous findings, Chapter 4 investigated whether interviewer confidence was influenced by the applicant's stigma, and more specifically was anchored in the initial impression formation / rapport building stage (Tversky & Kahneman, 1974). Following traditional interviews, interviewers were significantly more confident after having interviewed an applicant with a stigmatizing factor, whereas the absence of the stigmatizing factor resulted in lower levels of confidence. This finding is in line with the metacognitive framework, which proposes that direct exposure to the stigma results in a fast categorization process, triggering a strong feeling of rightness (FOR), eventually resulting in overconfidence.

By delaying the observation of the applicant until after rapport building / initial impression formation in the partially-blind interview, the categorization-fluency is not influenced by the applicant's appearance. In this situation, the initial impression was based on a single source of information (i.e., verbal). Restricting the interviewer's information sources to solely verbal information had a differential effect on confidence depending on the applicant. Compared to the effects of applicant stigma on confidence found in the traditional interview, interviewer confidence decreased when the applicant had a PWS, whereas interviewer confidence increased when the applicant did not have a PWS. These effects are driven by similar mechanism in which the verbal information presents an unequivocal image of the applicant. This process results in increased individualization of the facially stigmatized applicant, and decreases interviewer confidence, but facilitates categorization of the non-stigmatized applicant, and increasing confidence. In other words, the fluency of the heuristic outcome (i.e., categorization/initial impression) anchors the interviewer's confidence.

Although interviewer confidence might at first sight be not as important as the biased interview outcome when interviewing stigmatized applicants, interviewer overconfidence could signal the possible self-sustaining nature of bias. Future studies could investigate whether interviewer overconfidence

following biased decisions are predictive of future judgments (Koriat, 2012). Moreover, interviewers inflated confidence in their performance and judgments of stigmatized applicants is likely to refine current (negative) attitudes, and possibly shape future discriminatory behavior (Glasman & Albarracín, 2006). Similarly, high confidence might positively reinforce the interviewer's self-perceived objectivity (Uhlmann & Cohen, 2006) and does not motivate the interviewer to learn from this experience, for example through reflection or counterfactual thinking (Ellis, Carette, Anseel, & Lievens, 2013).

Additionally, we considered an indirect effect of applicant stigma on interviewer confidence, which was mediated by the extent with which the interviewer was successful at establishing rapport (D. S. Chapman & Zweig, 2005). Interviewers were able to present themselves more professionally towards, and establish a higher level of rapport with, the stigmatized applicant, compared to the non-stigmatized applicant. This finding indicates that immediate observation of the applicant's stigma initiates positive behavioral reactions by the interviewer, which results 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 likely account for these contrasting effects. Situational factors are key in determining one's desired social and professional identity (Biddle, 1986; Bozeman & Kacmar, 1997; Gangestad & Snyder, 2000; 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 involve less situational constraints. These general situations likely 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 real-life situation, 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.

Future studies could approach interviewing stigmatized applicants, and more specifically rapport building, as a situation in which interviewers are motivated to manage their presentation towards the applicant (Baumeister, 1982). Moreover, 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; Goffman, 1959; Leary & Kowalski, 1990). Besides the at first sight positive outcome of this process, it also draws on the interviewers' cognitive resources (Vohs, Baumeister, & Ciarocco, 2005) which could negatively affect information processing and decision-making (Madera & Hebl, 2012).

Overall, we found that in job interview decisions, bias and overconfidence are strongly related. Building on a metacognitive framework of heuristics, we showed that this overconfidence is anchored in initial impression formation / rapport building. Additionally, the interviewer's level of professional performance partially-mediated this process. Hence, we showed that applicants' stigma does not only affect the interview outcome, it also affects the interviewer. Research on 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.

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CHAPTER 5

WHY A TATTOO ISN'T ALWAYS A TABOO: APPLICANT TATTOOS FROM A SIGNALING PERSPECTIVE¹

Stigmatizing applicant characteristics (e.g., obesity, a tattoo, a scar) are typically seen as indicators of negative/deviant traits, and as a result, the notion that stigma's lead to discrimination in hiring situations is considered to be conventional wisdom. However, traits associated with various stigma's, such as visible tattoos, may not be uniformly negative, and signaling theory proposes that, under well-defined conditions, such applicant factors may provide applicants with a competitive advantage. We introduce openness to experience as a trait that is signaled by tattoos, and is thus hypothesized to moderate the effects of applicant tattoos on hiring decisions. Convergent evidence from two studies found support for the main hypothesis that under specific conditions applicants with tattoos have higher chances of getting hired than applicants without tattoos. In Study 5.1, we show that the beneficial effects of applicant tattoos can happen in a real world selection context that is high in openness to experience. In Study 5.2, a controlled experimental lab study showed that the effects of a tattoo on hiring decisions was moderated by the recruiter's openness to experience. Together, these counterintuitive findings challenge the widely-held assumption that stigma's such as tattoo's lead to discrimination in hiring decisions.

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INTRODUCTION

Could potentially stigmatizing applicant features such as having a tattoo give applicants a competitive advantage under specific hiring conditions? Common sense and existing research suggest it could not. In recent years, both practitioner and academic writings have warned about potential disadvantages associated with displaying tattoos in hiring contexts, leading to discrimination (Bekhor, Bekhor, & Gandrabur, 1995; Resenhoef, Villa, & Wiseman, 2008). Specifically, tattoos are generally perceived as a stigmatizing applicant factor that negatively influences interview outcomes, and even harms the tattooed individuals' professional career, and career opportunities (Dale, Bevill, Roach, Glasgow, & Bracy, 2009).

However, recently personnel selection has been depicted as a signaling game (Bangerter, Roulin, & Konig, 2012), which opens up new avenues for previously underexplored dynamics that may challenge conventional wisdom. On the basis of evolutionary biology, game theory and economics, Bangerter and colleagues describe hiring decisions as an advanced signaling system allowing actors to determine what information is reliable for making job market choices (e.g., organizations choosing among applicants). According to this perspective, organizations try to identify honest signals of unobservable qualities of applicants. For instance, recruiters might be interested in detecting honest signals that reflect to what extent the values, or personality traits, of the applicant correspond to those of the recruiter (Cable & Judge, 1997).

Much alike the domain of evolutionary biology, honest signals on the part of the applicant reflect markers that are hard to fake or impose a cost on the sender such that only fit individuals can bear the cost to do so. For example, the effort invested by an applicant to apply for a position in a distant located firm may signal to the employer that the applicant is willing to incur personal costs to work at the firm, and is thus very highly motivated. In the current paper, we argue that having a tattoo may function as both a costly (i.e., it comes with a handicap to acquire and display it) and a hard-to-fake (i.e., once applied they are no longer under the control of the applicant) signal about their central values. Such a costly and hard-to-fake signal should be particularly credible, and

thus convincing to recruiters who seek information in order to estimate the applicant's person-organization fit.

The aim of the current paper is to put the signaling theory of hiring decisions to a first test by examining whether honest signals (i.e., tattoos) that are commonly considered to be disadvantageous in hiring situations, may lead to better hiring chances under specific conditions. Note that we do not expect that tattoos never yield a disadvantage and would always be helpful to applicants in hiring situations. Instead, it is our goal to argue and demonstrate that under very specific conditions, tattoos as an honest signal *can* be advantageous to applicants. To this end, we will introduce 'openness for experience' as a moderating variable that should determine whether recruiters think that the underlying values signaled by a tattoo are generally congruent with their own values and by extension, those of their company (Cable & Judge, 1997; Vivian Chen, Lee, & Yeh, 2008).

As a research strategy, we first tested our main hypothesis in a field study. Our goal in this first study was to identify a field setting wherein we are able to demonstrate that the reverse discriminatory effect *could* happen, thus a field setting showing more job offers for applicants with a tattoo than for applicants without a tattoo. In a second step, we set up a more stringent test of the specific conditions that drive this effect. More specifically, the second study consisted of an experimental lab study examining whether recruiters high on openness for experience would be more likely to hire applicants with a tattoo over applicants without tattoos. Thus, the complimentary use of a field study, showing that the effect *can* happen in the real world, and a lab study, pinpointing under what specific conditions the effect *does* happen, should allow for robust and externally valid conclusions.

Foreshadowing the findings of our studies, from a theoretical standpoint the results should be important because they may challenge predictions made by more traditional theoretical models of discrimination in selection. By deriving counterintuitive predictions from the signaling theory of selection, we believe we put this new framework to a strong empirical test and show how it may be informative for guiding future selection research. These insights should further

be informative on identifying the boundary conditions and its mechanisms of discriminatory effects of stigma in selection.

Previous Research on Stigma's in Selection Context

Stigma, in its current meaning as a discrediting characteristic, was first introduced as a concept by Goffman (1968). At the time of introduction, the focus of stigma, and stigmatization, was on the physical mark, and how this mark directly causes effects, for example that signs of obesity may cause applicants being rejected for a job. However, more recent conceptualizations emphasize the social context needed for a physical mark to become a stigma (Hebl & Dovidio, 2005; Link & Phelan, 2001). Specifically, rather than the mark causing the effects per se, the social-stigma view emphasizes the role of the observer (i.e., interviewer), and notes that stigmatization depends on the cognitive representation that the observer holds. In the example of the overweight applicant, the social stigma view does not link the obesity directly to the rejection (as obese applicants can also get accepted for a job), but proposes that it depends on the traits, personality, and stereotypes associated to the obese applicant by the interviewer.

In selection, and specifically in the context of the job interview, there has been a continuing interest in the effects of applicant characteristics on interview outcome (Anderson, 1992; Arvey & Campion, 1982; Harris, 1989; Judge, Higgins, & Cable, 2000; Macan, 2009; Posthuma, Morgeson, & Campion, 2002). Interview outcomes is a general term referring to outcomes of these interviews and is dependent on the methodology that is applied. Moreover, in field studies confederates portraying real applicants apply for real-life jobs, hence the outcome in these types of studies is the actual job offer. However, in experimental studies, rater's often view a videotaped interview and following this interview report their hiring intentions, or make judgments of the applicant's job suitability or interview performance. Although both research designs have their weaknesses, the accumulation of findings across research traditions has been particularly informative in understanding how recruiters make hiring decisions.

Over the years researchers have investigated the effects of a wide variety of applicant characteristics in function of interview outcome and discrimination, including obesity (Puhl & Heuer, 2009), attractiveness (Hosoda, Stone-Romero, & Coats, 2003), ethnicity or religion (Ghumman & Ryan, 2013; King & Ahmad, 2010), and facial deformation (Madera & Hebl, 2012). Most notably is the consistency with which studies have documented negative, discriminatory effects of these applicant characteristics on interview outcome. Additionally, the negative effects of such applicant factors are not restricted to personnel selection, as similar effects are found in other organizational domains including promotion (Blau & Devaro, 2007), wages and salary (Card & DiNardo, 2002), performance appraisal (Halpert, Wilson, & Hickman, 1993), and task assignment (De Pater, van Vianen, & Bechtold, 2010).

The negative effect of applicant stigma in organizations, and specifically in job interview outcome, is such a common conception that it is considered to be “conventional wisdom” (Judge, Higgins, & Cable, 2000). While several mechanisms driving these effects have been explored, the most dominant theoretical framework to account for hiring discrimination is the use of stereotypes (Landy, 2008). However, implicit in the consistently found negative effects of stigma within various organizational domains is the key proposition that stereotypes are uniformly negative, whereas social psychological modeling suggests stereotypes are mixed (Fiske, Cuddy, Glick, & Xu, 2002). If stereotypes are indeed mixed, and thus activate a variety of stereotypes regarding the individual’s traits and personality, under strict circumstances applicant characteristics may also positively influence interview outcomes. In order to investigate this counterintuitive claim, we build on signaling theory (Spence, 1973). This broad framework has recently been applied to personnel selection (Bangerter et al., 2012), and stresses the role of interviewers and their need and interpretation of information to reduce uncertainty.

Signaling Theory in Personnel Selection

Signaling theory is a broad theoretical framework that has advanced the fields of marketing (Connelly, Ketchen, & Slater, 2011), recruitment (Jones, Willness, & Madey, 2013), and was recently introduced in personnel selection

(Bangerter et al., 2012). At the core of signaling theory is the context in which an individual, such as an interviewer, is required to make a decision or judgment under a certain level of uncertainty. The uncertainty aspect is embedded in the interviewers and employers' inability to observe the applicants' productive capacities consisting of ability (i.e., knowledge, learning agility, and future work performance) and commitment (i.e., applicant fit with the organization; Bangerter et al., 2012; Spence, 1973).

Considering the time and monetary investments in the applicant once hired for the job, interviewers seek to reduce uncertainty by drawing on the information that is presented during the interview. However, personnel selection, and more specifically the job interview, is a context in which the motives of the two parties do not align. Whereas the goal of the interviewer is to reduce uncertainty in order to make an optimal decision, the applicant is motivated to appear attractive to the organization in order to obtain the job. Applicants seek to make a positive impression by controlling the information that is exchanged, such as answers to interview questions or nonverbal behaviors such as smiling. However, in addition to the controlled information, applicants inevitably present the interviewer with fixed and uncontrolled information, such as demographic information including race/ethnicity and gender, but also physical characteristics such as tattoos. Given that the fixed information is often not under direct control of the applicant, interviewers consider these to be honest signals (Bangerter et al., 2012; Cronk, 2005).

There are two main types of honest signals, those that come with a certain cost (i.e., costly signals) and those that are hard-to-fake (i.e., hard-to-fake signals). Costly signals refer to signals that are honest because they require applicants to invest their resources in order to acquire and display them, and only fit individuals can bear to invest these resources. This handicap principle is derived from animal behavior where gazelles, for instance, indicate their fitness towards predators by stotting (i.e., jumping high in the air). Although this stotting requires a substantial amount of resources (i.e., energy), that would likely be better spent on the gazelle's escape when the predator attacks, it signals to the predator that the gazelle is fit. By showing it can easily afford to waste energy, the gazelle discourages the predator to pursue it the chance of a

successful hunt are most unlikely (Bangerter et al., 2012; FitzGibbon & Fanshawe, 1988). The other type of honest signals are those that are hard to fake, as they are beyond the conscious control of the applicant. Examples of hard-to-fake signals are performances on cognitive ability tests, or work samples. However recruiters may also attend signals that are hard to fake that have no predictive validity, such as graphology and nonverbal behaviors. This inclusion of predictive and non-predictive information underlines the interviewer's drive to gather any type of information that may reduce uncertainty.

In the signaling game of personnel selection (Bangerter et al., 2012), interviewers attend to honest signals in order to reduce uncertainty regarding the pending investment, and do so by making inferences about the applicant's ability and commitment. Ability refers to the skills and traits needed to perform the tasks required in the job, and is hence related to judgments of person-job fit (Bangerter et al., 2012; Kristof-Brown, Zimmerman, & Johnson, 2005). Alternatively, commitment is related to the person-organization fit (P-O fit), and answers the question whether the values of the applicant match the culture of the organization (Kristof-Brown, 2000). The extent to which ability and/or commitment can be judged depends on the selection instrument that is used by the recruiter. For example, the job interview is considered to be a well-established selection tool to make judgments of commitment, or P-O fit (Cable & Judge, 1997). In the current study, we relied on interviews as the main selection tool given their extremely high prevalence in practice (Lievens & De Paepe, 2004). Accordingly, we will focus on commitment as a criterion for evaluation rather than on ability as in studies that investigate discrimination in job interviews great care is taken to standardize indicators and signals of ability by providing similar/matched profiles (King, Hebl, & Botsford Morgan, 2013). Therefore, the results found in these studies are likely driven by perceptions of commitment.

Judgments of commitment (i.e., P-O fit) are based on the interviewers' perception of applicant values and personality in relation to those of the organization. However, although interviewers seek to judge the fit of the applicant with the organization, there is substantial evidence that interviewers

use themselves, their own values and personality, as a benchmark. Specifically, several studies showed that judgments of P-O fit (i.e., commitment) are strongly related to perceived similarity between the applicant and the interviewer, and the interviewers' personal preference or liking of the applicant (Cable & Judge, 1997; Judge & Ferris, 1992; Rynes & Gerhart, 1990; Vivian Chen et al., 2008). Hence, if applicants emit signals of values and personality traits similar those of the interviewer, this will positively affect the perception of P-O fit or commitment (Adkins, Russell, & Werbel, 1994), and also subsequent hiring intentions (Cable & Judge, 1997; Vivian Chen et al., 2008). Therefore, it is important to consider the interviewer's values and personality, and the perceived congruence with the values and personality of the applicant that is inferred from the honest signals.

Interviewers seek to judge the values and personality of the applicant, and do so by drawing upon costly and hard-to-fake signals. However, these honest signals also include applicant factors such as applicant attractiveness, or factors related to their appearance (i.e., grooming, dress, odor). Some applicant factors that are generally perceived as stigmatizing, such as tattoos, also emit signals of traits and values of the applicant. Such signals are especially convincing, as they are costly (i.e., investment of time, money, and possible social perception) and hard-to-fake (i.e., chances of an applicant that fakes having a tattoo are low). When these honest signals such as tattoos, increase the perceived congruence with the organization, or the interviewer, this should positively influence perceptions of commitment (i.e., P-O fit) and positively affect interview outcome. Such a counterintuitive hypothesis, drawn from signaling theory, would establish an important boundary condition for the general assumption that applicant factors have an exclusive negative, discriminatory effect on hiring.

We illustrate our point by a tentative reinterpretation of the findings from a study by Johnson, Podratz, Dipboye, and Gibbons (2010) in the light of the signaling framework. Their study finds that unattractive females (generally considered a stigmatized group) were more likely to be hired for a masculine sex-type job (i.e., director of security) compared to the attractive females. Although highly speculative at this time, according to signaling theory, this result could suggest that unattractiveness in females signals values and

personality traits (e.g., toughness, masculinity) that are congruent to those of the interviewer or the organization (i.e., security agency). Therefore it is important to establish the possible values and traits signaled by tattoos.

Signaling Effects of Tattoos

How are tattoos regarded in society and what may they signal? Tattoos are becoming increasingly popular in contemporary society. Current estimates are that approximately 24% of the American population, and 15% of the European population, has a tattoo (Laumann & Derick, 2006; Stieger, Pietschnig, Kastner, Voracek, & Swami, 2010). However, this type of body modification has a long historical development. Throughout time tattoos have been associated with marginalized groups including slaves and criminals (Schildkrout, 2004), and they were regarded as signals of negative/deviant behaviors including drugs and alcohol abuse (Nathanson, Paulhus, & Williams, 2006). In modern society the association between tattoos and marginalized groups or negative behaviors have moved to the background, and they are more and more perceived as a way to express one's personality, identity, and authenticity (Burgess & Clark, 2010; Schildkrout, 2004; Wohlrab, Stahl, & Kappeler, 2007).

This positive trend in perceptions of tattoos, as expressions of art and indicators of personality rather than markers of deviant traits, has been identified about two decades ago, and was labeled as the "tattoo renaissance" (Rubin, 1988). Nowadays, tattoos can be found on individuals from all ages and social classes (Wohlrab, Stahl, Rammsayer, & Kappeler, 2007). The drive for a personal identity, a sense of authenticity, and expression of one's personality are the most common motivations to obtain a tattoo (Burgess & Clark, 2010; Tiggemann & Hopkins, 2011; Wohlrab, et al., 2007). Building on these motivations, tattoos are increasingly perceived as signals of creativity and uniqueness (DeMello, 2000; Drews, Allison, & Probst, 2000; Nathanson et al., 2006; Tate & Shelton, 2008; Tiggemann & Hopkins, 2011), concepts captured under, and related to, openness to experience (Baer & Oldham, 2006; Barrick & Mount, 1991; McCrae & Costa, 1997). Openness to experience is one of personality traits that is included in the Five Factor Model (or "Big Five"), and is indicative of an individual's preference for novelty and uniqueness, the

motivation to seek new experiences (as opposed to routine and familiarity), and sensitivity to art and creativity (Barrick & Mount, 1991; McCrae & Costa, 1997).

From a personnel selection perspective, obtaining a tattoo can be seen as handicapping, similar to the gazelle who is stotting and waists energy. However, by consciously obtaining a tattoo, individuals explicitly choose to communicate core elements of their self-concept to the outside world. While tattoo's may signal various messages, including deviant traits depending on the content, symbols or meaning it has for the owner, it also has generally been found to signal individuality and a preference for art, beauty, and fashion (Wohlrab, et al., 2007). Thus, independent of the explicit message contained in the tattoo, individuals may use a tattoo as an honest signal, to communicate values and traits that are closely related to openness to experience, such as creativity and divergent thinking (Baer & Oldham, 2006; McCrae & Costa, 1997).

Signaling theory proposes that a congruence of the traits and values between the applicant and interviewer (or the organization) would positively affect interview outcome (Bangerter et al., 2012; Cable & Judge, 1997). However, given that few studies on interview discrimination include interviewer characteristics, such as personality and values, as a factor that may moderate bias, little is known on the role of interviewer characteristics in biased decision making in interviews (Posthuma, et al., 2002). Building on the known positive effects of congruence on interview outcome, and the proposition that tattoos may also signal traits related to openness to experience, we hypothesize:

Hypothesis 1. In an organization characterized by recruiters with a generally high openness to experience, interviewers will be more likely to hire an applicant with a tattoo than an applicant without a tattoo.

STUDY 5.1

Study 5.1 examined the reactions of recruiters, who are working at a professional job agency, to tattooed and non-tattooed job seekers, using the in-person audit technique. The in-person audit technique allows for the observation of naturally occurring real-life behavior and reactions of professionals who are

unaware of their participation in a study. Specifically, in-person audits (i.e., a kind of employment audit using confederates that role-play applicants) allow researchers to compare labor market outcomes of applicants who are equally qualified for a job (i.e., identical in all productive characteristics), but differ in observed variables (i.e., tattoos) in an unobtrusive way. By sending out matched applications to the same job agency office and counting the number of job offers, one can investigate whether recruiters' differential treatment of applicants was attributable to their tattoos.

A large international job agency cooperated in this study, and allowed us to apply at various regional offices using confederates as applicants. The recruiters were unaware of the study, resulting in the assessment of naturally occurring behavior. We gained access to the agencies' applicant database, which allowed us to measure the number job offers an applicant was considered for as a dependent variable.

Ethics

Given the sensitive nature of this study (King et al., 2012), careful consideration was given to ethical aspects of this study, and training of the confederates (see further). The top management and lawyers of the recruitment agency, university lawyers, the national Commission for the Protection of Privacy, and the Institutional Review Board, all considered ethical aspects and approved the study. Prior to the start of the study confederates also signed a non-disclosure agreement and a consent form highlighting the need for discretion and professionalism.

Study Context

We selected this organization on the basis of their public image of an open minded employer as communicated in several advertisement campaigns. We conducted a pilot study, under the disguise of a separate study, to confirm the public image of openness to experience and establish the context of openness to experience. Selecting the agency on the basis of their public image of openness to experience was congruent with the aim of this first study to demonstrate that the signaling effect, with higher hiring intentions for tattoos, *can* happen in the real world.

While the agency complied in taking part in the study, they did not allow for identification of specific recruiters. Hence, due to ethical limitations, related to privacy of the participants in field studies on sensitive topics such as discrimination (King et al., 2013; Pager, 2007), we were unable to collect data from these recruiters on a personal level (i.e. direct measures of their openness to experience). To address this issue, we send out an anonymous questionnaire to 50 recruiters of the agency. The questionnaire assessed the recruiters' openness to experience, the signaling function of tattoos, and included a measure to control for social desirability in responses. Of the initial sample, 39 responded of which 33 completed the full questionnaire and six dropped out after completing the items that measured their openness to experience. Although tentative, this questionnaire gives us some indicative information as to the general degree of openness in experience in the recruiters of this agency. Note that by no means we argue that openness of experience was the sole responsible factor for the hiring decisions. This additional contextual information only helps in depicting whether the organization selected offered a good field setting to test whether the signaling effect *can* happen in the real world.

Openness to experience was assessed through ten items taken from the International Personality Item Pool (IPIP; Goldberg, 1992). An example item is "I have a vivid imagination" (response options ranged from 1 = *completely disagree*, 7 = *completely agree*; $\alpha = .7$). The traits that are signaled by a tattoo were assessed by asking recruiters "When seeing an applicant with a visible tattoo, you consider this to indicate that...". The questionnaire included eight deviant-traits items ($\alpha = .87$; e.g., "...he/she will easily tell a lie", "...he/she frequently consumes alcohol"), and eight openness-related trait items ($\alpha = .93$; e.g., "...he/she is creative in his/her work", "...he/she enjoys to experience new things"). Response options ranged from 1 = *completely disagree*, 7 = *completely agree*. Finally, to control for social desirable responding we assessed this via the SDS-17 (Stöber, 2001). An example item is "I sometimes litter" (1 = *completely disagree*, 7 = *completely agree*; $\alpha = .55$).

In order to establish whether this study was conducted in a context with recruiters that are high in openness to experience, we compared the scores of the recruiters with those of 263 I-O psychology students, who would be

typical future employees for such an agency. We chose students as a reference sample as such a relative young sample ($M_{age} = 21.42$, $SD_{age} = 1.88$) is already considered to score relatively high on openness to experience (McCrae et al., 1999). Our results show that the recruiters reported higher levels of openness to experience ($M = 53.03$, $SD = 5.47$) compared to our student sample ($M = 50.11$, $SD = 8.2$), $t(69.91) = -2.85$, $p = .006$. The results indicate that the recruiters in this specific organizational context can overall be regarded as high on openness to experience.

We also assessed the signaling function of tattoos, thereby focusing on traits of deviance and traits of openness. Results indicate that recruiters perceive tattoos as signals of openness-related traits ($M = 4.17$; $SD = .86$) more than as signals of deviant traits ($M = 2.79$; $SD = 1.22$), $t(32) = 7.39$, $p < .001$. While controlling for social desirability, partial correlations indicate that recruiter openness to experience was positively correlated to perceptions of a tattoo as a signal of openness-related traits, $r(30) = .38$, $p = .03$, whereas there was no significant correlation with perceptions of tattoos as a signal of deviant traits, $r(30) = .29$, $p = .1$. These findings suggest that recruiters perceived tattoos as signals of openness-related traits rather than as signals of deviant traits. Additionally, these findings indicate that the strength of tattoos as a signal of openness to experience was related to the recruiters' openness to experience.

METHOD OF STUDY 5.1

Study Design and Study Sample

Study 5.1 examined the effects of applicant tattoos on job offers in a real-life hiring situation. Three confederates acted as applicants who were looking for jobs in commercial services. The confederates' role was to apply/register, in person, at a large Western-European job agency. The job agency specializes in commercial jobs (i.e., product representative, consultant, and public relations assistant). The sample consisted of 36 branches of the same job agency, at which confederates applied once with, and once without a visible tattoo, resulting in 72 applications. Of these applications five did not result in a complete or correct registration. The most important cause for these missing registrations was the

recruiter's failure to register the applicant manually into the companies' IT system. Therefore, the final analyses are based upon a sample of 67 applications.

Procedure

Three days prior to the application, confederates made an appointment at a designated office location, using a predetermined telephone script. One hour prior to the appointment, the tattoo was applied to the confederates' neck (experimental condition only). The one-hour interval between applying the tattoo and the appointment was chosen in order to reduce the confederates' awareness of the tattoo during the application process. In the hour before each application, the background details and behaviors were rehearsed in a short trial-interview with the experiment-leader, and details were discussed. The confederate then walked to the office and started the application procedure. During the interview, the applicants reacted to questions based on their training and background information, and they presented a copy of their resume. All recruiters used a structured interview format that focused on background characteristics and job preferences, according to company policies. Following the interview, confederates were registered in the agencies' IT system that allows to link applicant profiles to available job vacancies. The confederates left the office and returned to the meeting point. We then tracked the number of job offers for each applicant for a period of two weeks following the registration.

Materials

Screening and training of applicants. As in Study 5.1, all confederates were white females between 22 and 24 years of age, brown hair and an normal/average body type (i.e., body-mass index between 20 and 24 indicating normal weight-to-length ratio). None of the confederates had a facial stigma, and they were all natural, fluent, and outgoing in interpersonal contacts. In line with recommendations by Pager (2007), confederates were blind to the study hypotheses and were counterbalanced over manipulation conditions (tattoo, no tattoo), and office locations, to control for idiosyncratic effects (Riach & Rich, 2002).

All confederates took part in three training sessions. The first training was designed to standardize their verbal and nonverbal behavior using mock

interviews. The second training aimed to familiarize confederates with all elements of the applicant background information, how to use this information in the structured interview, and how to react to possible situations and questions outside of the structured interview. This training was based on a list of structured interview questions that are used during the interviews and that were provided by the job agency. This list allowed trainers and confederates to prepare and standardize answers to questions in advance. In the third training, the confederates registered at different branches of the same company that were not included in the actual study, in order to gain experience and familiarize with their role and the company procedures. Confederates were monitored and feedback was given to them following these training applications. All training sessions were designed in cooperation with, and closely monitored by, a senior recruiter from the agency who collaborated on this project.

Applicant background information. Background information refers to applicants' demographic information, educational history, language and computer skills, prior work experiences, and extracurricular activities that were all listed in a résumé. Demographic information contained the applicants' name, address, date of birth, nationality, and contact information.

Applicant first and last names were selected from a national database from birth registrations over the past 30 years, and only common names were picked from this list to avoid name-specific confounds. Addresses were selected on the basis of proximity to each employment office. Addresses were equivalent in type (apartment vs. house), size, and distance to the employment office. The addresses served for registration purposes only. All applicants had a professional bachelor's degree in business administration, obtained at one of the six largest national university colleges. Colleges were randomly assigned to the applicants' background, and applicants at the same recruitment office did not attend the same college. Language and computer skills (acquired during the Bachelor education) were kept constant as these skills are acquired during the studies.

Applicants' work experiences were based on temporary jobs for students retrieved from various online sources for temporary jobs, which is common for newly graduated people with a bachelors' degree. These experiences were collected in a database. The collaborating senior recruiter selected 16 different

work experiences based on their similarity and their relevance to the commercial jobs for which the agency recruits job seekers. In a similar way, a list of common voluntary extracurricular activities was created. Activities included in the database were student tutorship, camp counseling, and organizational duties for a cultural festival. Each background contained two relevant work experiences and two extracurricular activities, resulting in engaged and active job profiles. Finally, because membership of a scouting or youth organization is common where the study was conducted, all applicants reported being involved in one of four possible organizations as a group leader. The work experiences and extracurricular activities were randomly assigned to the backgrounds to control for pairing effects, and experiences appeared only once per recruitment office. As a result, prior work experiences and extracurricular activities matched both the required educational level and relevant job experiences (e.g., direct customer contact face-to-face or via telephone, sales or product representation etc.) to represent an average job seeker. All background information was presented in paper resumes.

Applicant appearance and tattoo manipulation. The appearance of the applicants was matched and selected to fit the recruitment agencies' profile of a professional individual. Confederates dressed professionally with small/casual heels (no sneakers), dressed pants (no jeans) or a skirt, a top, and a dressed jacket. For the tattoo manipulation, we used a tribal tattoo that was placed in the right hand side of the applicants' neck just above the collar bone. To standardize the design a template was used throughout this study. The tattoo was applied using a tattoo-spray which is used in film and theaters. This study applied a tribal tattoo as this is the most commonly used, and has a neutral / ambiguous connotation (Wohlrab, Stahl, Rammsayer, et al., 2007). Additionally, by using a tribal tattoo we avoid tattoo-specific effects related to aggressive and non-aggressive behavior (Resenhoeft, Villa, & Wiseman, 2008).

The two applications at the same recruitment office were separated at least 24 hours. This period was short enough to allow the applicants to be registered in the system simultaneously for an extensive period, making them available for the same job openings. To control for unintended effects, confederates were counterbalanced over the two manipulation conditions (see Table 1), so that

each confederate applied with and without a visible tattoo. Given the 24 hour delay between applications, the order of application was randomized for both the applicant and the manipulation condition. For example, applicant A is the first to register at office location one with no tattoo, and applicant B registers at this location with a tattoo, then at office location two applicant C would be the first applicant and register with a tattoo, and applicant A would register without a tattoo.

Table 1

Frequencies of Correctly Registered Applicants per Experimental Condition (Study 5.1)

	<i>No Tattoo</i>	<i>Tattoo</i>	<i>Total</i>
Confederate A	10	13	23
Confederate B	12	10	22
Confederate C	10	12	22
Total	32	35	67

Note. Table includes only applicants that were correctly registered in the system.

Measures

Job offers. In the job agency, job openings in the area (collected by consultants) are recorded in a digital job database and linked to the applicants' profiles if the recruiter considers the applicant a good candidate. When registering new candidates, they may be linked to job openings that are already in the system, or recruiters may start contacting companies to inquire for jobs that would fit the applicants' background. So, the task of recruiters is to contact local companies to inquire about possible job openings for each applicant. Multiple job openings can be linked to one applicant profile, and one job opening can be linked to multiple applicant profiles. Upon completion of the study, we extracted the number of actual, real-life job offers to each of the applicants from the company databases. This is a direct representation of the consultant's effort to get a job for the applicant. Note that consultant motivation is always high because the company only creates revenues, and consultants achieve their targets, if the job openings that they collect are actually filled.

RESULTS OF STUDY 5.1

First, we checked for differences in number of job offers between confederates, irrespective of tattoo condition, as the central assumption is that confederates were similar with regard to their physical, behavioral and background characteristics. Across tattoo conditions, we found no significant difference in job offers between the three applicants, $F(1, 59) = 2.03, p = .14$. This indicates that applicants were successfully matched and the training resulted in behavioral similarity between the three confederates.

Secondly, applicants also presented recruiters a copy of their resume. Four different lay-outs were designed and analysis of variance indicated there was no effect of resume type on number of job offers, $F(1, 59) = .49, p = .62$. This indicates that the resume lay-outs did not influence the recruitment outcomes.

To test Hypothesis 1 we compared the number of job offers to tattooed and non-tattooed job seekers. The results showed significantly more job offers for applicants with a tattoo ($M = 2.6; SD = 3.33$) than for non-stigmatized applicants ($M = 1.13; SD = 1.52$), $t(48.96) = -2.37, p = .02, M_{Tattoo} - M_{Control} = 1.48$ (95% CI [-2.73,-0.22]), $d = .57$, thereby supporting Hypothesis 1. In an organization characterized by recruiters with a generally high openness to experience, interviewers were more likely to hire an applicant with a tattoo than an applicant without a tattoo.

STUDY 5.2

Using an unobtrusive measure in a field setting, we show that applicants with tattoos received more job offers than applicants without tattoos. We believe this is one of the first empirical demonstrations in the field showing that tattoos, generally considered to be a stigmatizing applicant feature, do not necessarily lead to discrimination, but instead can give applicants an advantage to receive more job offers. Thus, the current finding challenges the traditional perspective on stigma's and associated discrimination in selection settings. Although, for this field study, we went out of our way to select a context that might be characterized by recruiters scoring high in openness to experience, we have no evidence supporting our theoretical arguments that 'openness to experience' is

the moderating condition responsible for the effect. To this end, we conducted a second experimental study, wherein we had more control over the participants and should be able to elucidate the exact moderating conditions of the tattoo effect. Thus, in this second study, we hypothesize:

Hypothesis 2: Recruiter openness to experience will interact with an applicant's tattoo. Recruiters high on openness to experience will show more favorable hiring intentions towards applicants with a tattoo than those without a tattoo. On the contrary, recruiters low on openness to experience will have no favorable hiring intentions to applicants with or without tattoos.

METHOD OF STUDY 5.2

Participants

For this study, we recruited 80 HR-professionals who at the time of the study were, or had previously been, enrolled in a training course on HRM practices at a large Western-European university. In the sample, 48 participants were female (60%), and the mean age was 31.26 years old ($SD = 12.68$). In the total sample, 47.5% indicated that their current function involved interviewing applicants, and 35% reported currently having the authority to make final hiring decisions.

Design and Procedure

We used an experimental design with applicant tattoo (absent vs. present) as the between subject factor, and recruiter's openness to experience as a continuous moderating variable, to investigate the effects of applicant tattoo on HR professionals' hiring intentions.

A two-staged online study was conducted. In Stage 1, we contacted experienced HR-professionals via e-mail to participate in a study on recruitment and selection. After giving their informed consent, HR-professionals first read the cover story on investigating cognitive effects of attending videotaped job interviews. HR-professionals were then requested to carefully read a job description for an employee at a commercial/financial organization (cf., Study 5.1). Subsequently, HR-professionals were randomly assigned to one of two pre-

recorded interviews with applicants (i.e., tattoo or no-tattoo). Following the observation of the interview, participants reported their hiring intentions (Stevens & Kristof, 1995) and completed the manipulation checks (see further).

To avoid possible cross-contamination in Stage 2, we re-contacted participants three months after their participation in Stage 1, and asked to fill out a questionnaire for a separate and unrelated study that investigated personality characteristics in recruiters.

Materials

Two job interviews were recorded in a professional recording studio. Similar to Study 5.1, the applicant was female, with brown hair and normal/average body type, who portrayed a 23 year old job applicant. The camera was positioned directly at the applicant to mimic a first-person view for the participants. Both interviews were conducted by the same off-camera interviewer. Three main competencies that were included in the job description (independent worker, flexible, and able to handle stressful situations), were questioned using the behavioral description interviewing technique (Janz, 1982). To standardize the interview content, the applicant followed the same predetermined realistic speech script in both conditions, resulting in interviews of approximately six minutes. Similar to Study 5.1, the tattoo was applied using a spray that is often used in film and theater, and we again opted for a tribal tattoo design. The manipulation of the tattoo was pilot tested ($N = 15$) in order to check whether the tattoo was visible to observers, and whether the mark was perceived as a tattoo. Results of the pilot test confirmed that the tattoo was observed and perceived as intended (100% correct identification).

Measures

Hiring Intentions. The main dependent outcome measures consisted of raters' hiring intentions (Stevens & Kristof, 1995). Participants were asked to indicate to what extent they would "*Invite this candidate to a second interview*", "*Offer the candidate the job*", and "*Reject the candidate*" (reverse scored). Applicants responded using a 5-item likert scale (1 = < 20%; 5 = > 80%) and the scale had a high reliability ($\alpha = .82$).

Manipulation Checks. Online studies generally reduce the control over the active participation by the participants as it is unknown what they are doing while completing the experiment (Wood, Noseworthy, & Colwell, 2013). Given that attention to the applicant and the interview is important, we included two manipulation checks. The first manipulation check assessed whether participants had observed a tattoo, and the second manipulation check, a 6-item open-ended memory questionnaire, checked the raters’ attention to the interview content. An example item is: “In one example the applicant talked about an argument with a colleague on the phone, why was this colleague unhappy?”

Openness to Experience. To measure participants’ openness to experience, we used four items from the mini-IPIP (Donnellan, Oswald, Baird, & Lucas, 2006). Participants were asked to indicate to what extent the statements (e.g., “[I]Have a vivid imagination”, “[I] Am not interested in abstract ideas”, “[I] Have difficulty understanding abstract ideas”, and “[I] Do not have a good imagination” [reverse coded]) are accurate descriptions of themselves (1 = *very inaccurate*, 5 = *very accurate*). Reliability was rather low but still acceptable for research purposes ($\alpha = .60$), and all inter-item correlations within the openness to experience dimension were significant ($p < .001$). Table 2 presents the means, standard deviations, and correlations of study variables.

Table 2
Descriptive Statistics and Correlations (Study 5.2)

	<i>N</i>	<i>M</i>	<i>SD</i>	1	2	3	4
1. Age of HR-professional	80	31.26	12.68	-			
2. Applicant stigma	80	1.51	.5	.40	-		
3. Future Hiring Intentions	80	4.23	.47	-.01	.15	-	
4. HR-professionals’ Openness to Experience	80	14.04	2.72	-.15	-.11	.08	-

Note. Stigma is coded 1 = No Tattoo, 2 = Tattoo

RESULTS OF STUDY 5.2

Preliminary Analyses

First, we checked whether the tattoo-manipulation was successful, and whether raters attended to the interview as expected. Results of the manipulation

check indicate that both the applicants with a tattoo and without a tattoo were correctly identified as such by all participants in the respective conditions (100% correct identifications). Additionally, results of the interview content questionnaire indicated that interviewers correctly recalled on average 71% of the interview content questions ($M = 4.26$; $SD = 1.4$), and no significant differences were found between stigma conditions, $t(80) = -.67, p = .5$.

Hypothesis Testing

To investigate the effect of the HR-professional's openness to experience on hiring intentions of tattooed and non-tattooed applicant we ran a hierarchical regression in which applicant tattoo was entered as a first step, the HR-professional's openness to experience score as a second step, followed by the interaction term (applicant tattoo x HR-professional's openness to experience; mean-centered; see Aiken & West, 1991) as a third step (see Table 3 for the full regression results). First, results did not indicate a significant main effect of applicant tattoo on hiring intentions ($\beta = .18, p = .11$). However, as predicted, the interaction term was significant ($\beta = .40, p < .05$; $\Delta R = .06, p = .03$).

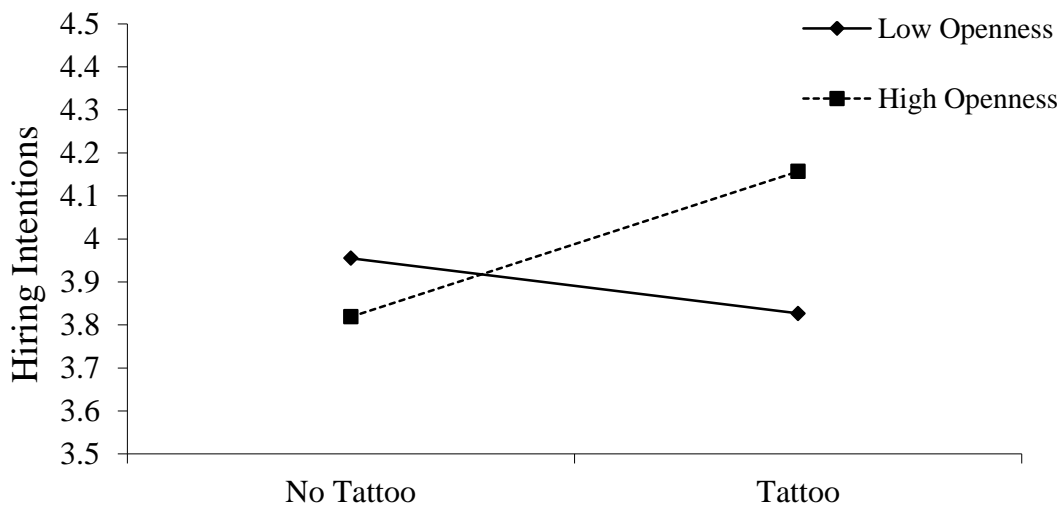


Figure 1. *The relation between Rater's Openness to Experience and their Hiring Intentions of Tattooed versus Non-tattooed Applicants*

Figure 1 shows the interaction of applicant tattoo and HR professional's openness to experience at two levels of openness, which are one standard deviation below (i.e., low openness) and above the mean (i.e., high openness;

see Aiken & West, 1991). As expected, HR-managers' openness to experience had a significant positive effect on hiring intentions towards applicants with a tattoo ($\beta = .13, p = .05$), whereas there was a non-significant negative effect on the hiring intentions of non-tattooed applicants ($\beta = -.11, p = .22$). This finding provides support for Hypothesis 2. As expected, compared to HR-managers low in openness to experience, those high in openness to experience had higher hiring intentions towards applicants with a tattoo than towards applicants without a tattoo.

Table 3
Hierarchical Regression Analysis (Study 5.2)

Independent Variable	b	SE _b	β	R ²	ΔR^2
Step 1				.02	
Applicant Tattoo	.14	.10	.15		
Step 2				.03	.01
Applicant Tattoo	.14	.11	.16		
Openness to Experience	.02	.02	.09		
Step 3				.09*	.06*
Applicant Tattoo	.17	.10	.18		
Openness to Experience	-.04	.03	-.23		
Applicant Tattoo x Openness	.23*	.11	.40*		

Note. * $p < .05$

DISCUSSION

Traditionally, stigma's are typically seen as indicators of negative/deviant traits and behaviors (Roehling, 1999; Schildkrout, 2004). As a result, the notion that stigma's lead to discrimination in hiring situation is considered to be conventional wisdom (Judge, Higgins, & Cable, 2000). However, traits and stereotypes associated with various stigma's may not be uniformly negative and, under well-defined conditions, may even provide applicants with a competitive advantage. Building on theory of personnel selection as a signaling game (Bangerter et al., 2012; Spence, 1973), we investigated an important boundary condition for the generally expected negative effects of stigmatizing applicant factors on interview outcome.

Summarizing the results across two studies, we found that a costly and hard-to-fake signal, such as an applicant's tattoo, may positively affect interview outcomes. In Study 5.1, we found that the positive effects of tattoos on interview outcomes *can* happen in a field setting by examining job offers in a selection context that was characterized by a generally high openness to experience among recruiters. In Study 5.2, we put our hypothesis regarding the moderating role of interviewer openness to experience to a more stringent test. Using a controlled experimental setting we found that interviewer openness to experience *did* moderate the effect of tattoo on hiring outcome. Specifically, experienced recruiters who are high on openness for experience were more likely to hire the tattooed applicant compared to the applicant without a tattoo. Thus, complimentary research designs provide convergent evidence for our main hypothesis: Under well-defined conditions (i.e., recruiters' high on openness to experience), previously assumed discrimination-evoking stigma's such as tattoo's may bring an advantage for applicants in hiring situations.

Signaling theory proposes that interviewers seek information, or cues, that may signal unobservable traits and values that can be used to judge the applicant's ability and commitment, and in doing so reduce uncertainty in the selection process. When judging commitment, or P-O fit, interviewers use their own personality and values as a benchmark. In line with this literature, our findings tentatively suggest that stigma such as tattoos can also increase the perceived congruence between values and traits of the interviewer and applicant, and thus provide evidence for an important boundary condition for the occurrence of discrimination. Given this boundary condition, research on discrimination in interviews may benefit from an increased interest in interviewer characteristics, as these are only to a limited extent considered in bias and interviewer decision-making studies. Specifically, approximately 1% of the research, which focuses on interview discrimination and bias included interviewer characteristics as a possible factor that influences their judgments (Posthuma, et al., 2002). This study, as well as several other studies (Devine, Plant, Amodio, Harmon-Jones, & Vance, 2002; Plant et al., 2009; Plant & Peruche, 2005), highlights the important role of rater/observer personality, perceptions, and motivations in the activation and appreciation of stereotypes.

In addition, only a few studies have addressed, or shown, inconsistencies in the conventional wisdom that applicant factors that deviate from the standard or model applicant negatively affect interview outcomes (Heilman & Saruwatari, 1979; Johnson et al., 2010). However, assessment of such inconsistencies increases our understanding of the values and traits signaled by these stigma, and how they are applied in the decision-making process. Hence, our results are a first indication that tattoos may also signal traits that are related to openness to experience (creativity, individuality), and may increase the perceived congruence with recruiters' values, and those from the job and/or organization. However, in the current study, we had no compelling direct information on the mechanisms responsible for the effects observed. Future studies should examine the signaling function of tattoo's and other stigma, how they are differently interpreted by recruiters' depending on their goals and characteristics, and how these interpretations ultimately affect hiring decisions. Thus, while our findings provide an important first step in demonstrating the potential beneficial signaling function of stigma, more process research is needed to document the intermediate cognitive and motivational steps linking signal to final outcome, the hiring decision.

Strengths and Limitations

The main strength of this study is the complimentary use of a field study (Study 5.1), showing that the effect can happen in the real world, and a lab study (Study 5.2), pinpointing under what specific conditions the effect does happen. However, as with most studies, some there are some limitations. The first limitation is the inability to directly assess the moderating effects of openness to experience in Study 5.1. However, the goal of Study 5.1 was to show that positive effects of tattoo in selection *can* happen under certain circumstances, and we went out of our way to select a context that was characterized by recruiters scoring high in openness to experience. Study 5.2 was designed to further test the relation and in doing so address this limitation. In the current study, we focused on openness to experience, as tattoos are increasingly related to traits that are closely related to openness such as creativity and divergent thinking (Baer & Oldham, 2006; McCrae & Costa, 1997). However, one

alternative explanation of our findings would be that interviewer's openness to experience has a general positive effect on interview judgments of stigmatized applicants. Moreover, openness to experience has been shown to mitigate racial stereotyping on judgments of ability (i.e., intelligence) and commitment (i.e., values such as honesty) following informal interviews (Flynn, 2005). This should be further addressed in a study that investigate the effect of interviewer openness to experience on interview judgments of applicants with stigma that signal different traits. These results show that interviewer openness to experience is an important factor to consider in future studies on bias and discrimination in personnel selection.

Future Research

The signaling theory also proposes other interesting avenues for future research with regards to personnel selection, and with regards to discrimination and bias in interview outcome. Similar to the current study on tattoos, and Johnsons et al., (2010) study on female attractiveness, future studies could further establish boundary conditions of bias and discrimination, and in doing so focus on different stigmatizing applicant factors (e.g., overweight), and different tools in personnel selection. For example, tattoos can be regarded as an honest signal that is both costly (i.e., when getting a tattoo the person is aware that this may change the impression others have) and hard-to-fake (i.e., individuals likely rarely get a temporary tattoo in order to impress the interviewer). However, some stigma are not costly because they have a more natural origin (e.g., facial stigma such as a port-wine stain), but are only hard-to-fake. This may affect interviewer's reactions, and effect of these signals on the interviewer's perceptions of applicant ability and commitment.

One additional avenue for future research, is to test signaling theory in relation to hiring decisions and discrimination in other tools used in personnel selection. For example, in resume screening, and screening online profiles (e.g., LinkedIn), there are different signals of applicant commitment (i.e., P-O fit) and ability (i.e., P-J fit). Future studies could for instance determine the impact of important signals of ability (e.g., work experience), and assess the influence of

these signals within stigmatized groups, or compare the influence of these signals with a majority group.

CONCLUSION

To conclude, the findings from two studies provide a new, counterintuitive insight into the effects of stigmatizing applicant factors, such as tattoos, on interview outcomes. Drawing on signaling theory in personnel selection these findings show that there are boundary conditions for the conventional wisdom that applicant stigma have a uniformly negative effect on interview outcome. Specifically, across two studies, we show that stigmatizing applicant factors, such as a tattoo, can be advantageous if the traits and values signaled by these factors increase the (perceived) congruence with specific contextual factors such as traits and values of the interviewer.

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CHAPTER 6

GENERAL DISCUSSION

The goal of this dissertation was to advance our understanding of how applicant stigma elicits biased outcomes in the job interview context. Drawing on dual-process theory, a dual-process framework of interview bias was developed that addresses the complex nature of interview bias. This framework formulated several propositions regarding the effects of the applicant's stigma on the interviewer's decision-making process. Seven propositions, divided into three goals or topics, were investigated accordingly. First, building on the dual-process framework, the origin, nature, and evolution of bias in the interviewer's decision-making process was investigated, and a structural intervention method was designed. Second, this dissertation addressed the illusion of validity, or interviewer post-interview confidence, by assessing the role of stigmatizing information, and the interviewer's behavioral reactions during the rapport-building stage. Third, this dissertation challenged the general perception that stigmatizing applicant characteristics have a unique negative effect on interview outcome by addressing possible boundary conditions to this effect. This general discussion provides an overview of the theoretical framework of interview bias, and the main findings of the studies that were presented in this dissertation. Further, the theoretical and practical implications, and this discussion is concluded by addressing some limitations and pinpointing avenues for future research that would further advance our understanding of how applicant stigma elicit bias in interview outcome.

RESEARCH OVERVIEW

In the light of the growing knowledge on the variety of stigmatizing applicant features that result in biased interview outcomes (Dipboye, 2005; Ghumman & Ryan, 2013; Hebl, Foster, Mannix, & Dovidio, 2002; Macan, 2009; Madera & Hebl, 2012; Roehling, 1999; Singer & Sewell, 2006), the need for a systematic framework that captures the complex nature of interview bias against stigmatized applicants increases accordingly (Arvey & Campion, 1982; Macan & Merritt, 2011). However, despite this continuous interest in identifying applicant characteristics that result in interview bias, there is surprisingly little attention to the role of the interviewer and the interviewer's decision-making process (Posthuma, Morgeson, & Campion, 2002). This void in the understanding is surprising given the central role of the interviewer as information gatherer, information processor, and – most importantly - decision maker.

This dissertation addresses the need for a deeper understanding of the *general, underlying, and explanatory mechanisms* that drive bias in the interviewer's decision-making process (Arvey, 1979; Derous, Ryan, & Buijsrogge, 2013; Macan & Merritt, 2011). The primary aim of this dissertation was to investigate *how* stigmatizing applicant characteristics affect the interviewer's decision-making process and result in bias. In doing so, one of the central objectives was to design a theoretical framework of interview bias that acknowledges the complex and interdisciplinary nature of bias in interviews and the decision-making process, and assess the propositions made by this framework through empirical studies.

The Theoretical Framework: A Short Recap

Chapter 2 presents a theoretical framework of interview bias. This *dual-process framework of interview bias* emphasizes the role of the initial impression formation process in biased interview outcome throughout the various stages of the interview. Specifically, the framework builds on the sequential nature of the interview stages (rapport-building, interview, decision-making), and projects the automatic cognitive processes (i.e., Type 1 processes),

that are triggered by the stigma, on the various stages and the assorted goals and tasks of the interviewer. This framework is briefly summarized next.

Dual-process framework of interview bias. Starting with the rapport building stage, and more specifically the initial impressions that are formed during this stage, the framework proposed that the presence and observation of the stigma affects the initial impression formation process. In reaction to observing the applicant's stigma at the start of the rapport-building stage, automatic and unconscious Type 1 processes produce behavioral (e.g., focus on the stigma) and cognitive (e.g., stereotypes) impulses in the interviewer. The associated cognitive reactions instantly provide the interviewer with additional information that is not – or to a lesser extent – available when observing a non-stigmatized applicant. The observation of the stigma, and the availability of the additional information, provides sufficient information upon which to immediately form an initial impression. However, when the stigma and additional information are unavailable, the initial impression formation process is expected to be slower, to require more information (i.e., individuation), and is subject to change (i.e., recategorization). The speed with which the initial impression is formed determines the metacognitive confidence or Feeling Of Rightness (FOR; Thompson, 2009) that is associated with, the initial impression. If the initial impression is formed slowly, confidence - or FOR - associated with the initial impression will be weak, and the initial impression will be more easily subject to change based on additional information (i.e., recategorization). Contrary, when the initial impression is produced fast (as with stigmatized applicants), confidence – or FOR - that is associated with the initial impression will be high, and the interviewer will be less likely to change the initial impression.

This process is also expected to continue during the interview stage. Specifically, when the interviewer builds on an initial impression that is based on the stigma, the interviewer's ability and motivation to make adjustments based on new incoming information will be reduced. Contrary to the idea that interviewers will not attend to the new incoming information presented during the interview, the framework proposes that interviewers do attend to this

information, but that this newly presented information has a smaller impact on the interviewer's impression of the applicant. Specifically, the strength of the FOR related to the initial impression reduces the impact of additional job-relevant information on the interviewer's impression of the applicant. On the contrary, when the FOR is weak, the same job-relevant information is expected to have a larger impact on the interviewer's initial impression of the applicant and result in adjustments.

In terms of the decision-making process, the initial impression of a stigmatized applicant serves as a strong anchor. Specifically, when the initial impression is formed and associated with a strong FOR, interviewers are expected to make little adjustments to this impression during the interaction. Contrary, when the initial impression is associated with a weak FOR, interviewers will be more likely to make adjustments to the initial impression during the interview. This last process is in line with interview theory that expects interview judgments to be heavily based on job relevant information exchanged during the interview stage. However, according to the *dual-process framework of interview bias*, the decision-making process will be restricted by the anchoring effect of initial impressions (Chapman & Johnson, 2002; Hogarth & Einhorn, 1992; Tversky & Kahneman, 1974).

To adjust the anchors, or initial impressions, when making their final judgment of the applicant, interviewers need to free-up cognitive resources (De Neys, 2006; Epley & Gilovich, 2006). However, according to the *dual-process framework of interview bias*, cognitive resources are depleted due to the attempts to control and overrule behavioral impulses that are triggered by the stigma. Specifically, within a job interview setting, interviewers are expected to suppress the socially undesirable reflexive behavioral impulses in reaction to observing the stigmatized applicant (i.e., Type 1 impulses), and to consciously control their behavior according to professional rules and regulations (Type 2 processes; Pryor, Reeder, Yeadon, & Hesson-McInnis, 2004; Evans, 2008). Although these processes are expected to positively influence the interviewer's professional performance, they also deplete the interviewer's cognitive resources. Paradoxically, this will make interviewers *more* susceptible to the anchoring of the initial impression which will lead to biased interview outcomes.

Propositions. The *dual-process framework of interview bias* formulated several propositions regarding the influence of the applicant's stigma on the interviewer's reactions to stigmatized applicants. Seven of these propositions (i.e., propositions that are considered to be central to the theoretical framework and/or novel in the field of interview discrimination) were examined in three empirical chapters (Chapters 3, 4, and 5) that include four empirical studies. First, the key propositions of the theoretical framework regarding the *origin and evolution of bias* in the interviewer's decision-making process were tested (Chapter 3). Second, the propositions regarding the *interviewer's behavioral reactions* towards the stigmatized applicant, and the effects of interviewing stigmatized applicants on the *interviewer's confidence* (i.e., illusion of validity) were investigated (Chapter 4). Third, the proposition that interview bias is not bound to negative effects, and under strict circumstances stigmatizing applicant characteristics can be *beneficial in selection* was considered in Chapter 5. The main findings of each chapter in relation to the propositions made by this theoretical framework are discussed next.

The Origin and Evolution of Bias in the Interviewer's Decision-Making Process

The origin of bias (*propositions 2a,d, 3a,b,c*). A central premise of the framework is that bias in the decision-making process originates in the rapport-building stage. This proposition was tested in Chapter 3 by assessing the effects of applicant stigma on the interviewer's visual attention (i.e., fixations to the stigma) and attention to verbal information (i.e., memory for verbal information presented by the applicant) during the rapport-building and interview stage. The effects of the stigma on the cognitive processes were then related to the interview outcome (i.e., interviewer's intentions to hire the applicant) that was reported following the interview.

Study 3.1 ($N = 60$ industrial/organizational psychology students) shows that bias against stigmatized applicants originates during rapport-building. Specifically, facial areas that contains a stigma, in this case a port-wine stain (PWS), attracted up to three times as much visual attention during rapport building compared to when there was no stigma. Moreover, this increased

attention to the PWS negatively affected the interviewer's attention to, and memory for, the verbal information provided by the applicant during the rapport-building stage. As attention to, and memory for, the verbal information exchanged during rapport-building was positively related to interview outcome, the negative effect of the PWS on the attention to this information was found to drive interview bias. In other words, the results show that the observation of a visual stigma (i.e., PWS) limits the interviewers' ability or tendency to process additional verbal information when forming the initial impression of an applicant (i.e., individuation). As individuation is found to be positively related to the interviewer's intention to hire the applicant, the stigma had an indirect negative effect on the interview outcome that resulted in bias.

Additionally, Study 3.2 ($N = 193$ experienced interviewers) showed that in partially-blind interviews (i.e., when the applicant's port-wine stain was not visible during rapport building), no differences were found in the final interview judgments (i.e., judgment of job suitability following the full interview) of stigmatized and non-stigmatized applicants. However, final judgments made following traditional interviews (i.e., where the stigma was visible during rapport-building), did show a significant negative bias against the stigmatized applicant. This provides additional support for the proposition that bias originates during rapport-building.

The evolution of bias (*propositions 5a,b*). A second proposition made by the theoretical framework is that although bias originates during rapport-building, and more specifically in the initial impression formation process, it evolves throughout the interview, affecting the final interview outcome.

It is generally assumed that stereotypes negatively affect the interviewer's initial impression of the stigmatized applicant (Levashina, Hartwell, Morgeson, & Campion, 2013). However, according to *the dual-process framework of interview bias*, it is not the (negative) nature of the stereotypes that affects the initial impressions, but the activation of stereotypes facilitates the speed with which the initial impression is formed. When initial impressions are formed fast (as with stigmatized applicants, Study 3.1), initial impressions are robust and interviewers will be less likely to make adjustments to these impressions

following the presentation of job relevant information during the interview. Contrary, when initial impressions are formed more slowly (i.e., non-stigmatized applicants, or when the stigma is not visible during rapport-building, interviewers are more inclined to make adjustments to this initial impression based on job relevant information. Put differently, the effect of the stigma on the initial impression formation process was proposed to anchor the decision-making process, resulting in the absence– or limitation – of adjustments of the initial impressions throughout the interview.

This anchoring-proposition (i.e., proposition 5a, b) was further tested in Chapter 3 by manipulating the stigma (port-wine stain or not), the interview technique (traditional or partially-blind) and recording the interviewer's impression of the applicant twice in the interview (following rapport-building and after the interview). First, in Study 3.2, there was no indication that the presence /visibility of the applicant's stigma (namely port-wine stains) resulted in a negative initial impression compared to the initial impressions of non-stigmatized applicants. Hence, the results do not support the general assumption that initial impressions of stigmatized applicants are more negative due to the possible activation and application of negative stereotypes. However, as proposed by *the dual-process framework of interview bias*, interviewers did not adjust their initial impressions of stigmatized applicants when the stigma was visible during rapport-building (i.e., traditional interview). On the contrary, interviewers made significant positive adjustments to the initial impression when the applicant had no stigma, or when the stigma was not visible during rapport-building (i.e., partially-blind interview). Hence, these findings provide the first support for the proposition that the effects of applicant stigma during rapport-building anchor the interviewer's decision-making process.

In sum, our findings show that bias against stigmatized applicants originates during rapport building, and more specifically during initial impression formation. However, rather than resulting in more negative initial impressions, these initial impressions of stigmatized applicants may serve as anchors in the decision-making process. Bias is found to result from a lack of adjustment of the initial impressions in the face of new and relevant information.

Interviewer Reactions to Stigmatized Applicants and the Illusion of Validity

Daniel Kahneman (2003a) noted in his autobiography that his Nobel Prize winning research was inspired by his experiences as an interviewer when assessing candidates for officer training in the army. He was intrigued by the confidence that he experienced about his own judgments, and noted that this confidence was often unrelated to the validity of the clinical judgments (i.e., illusion of validity; Kahneman, 2003a; Kahneman & Klein, 2009). Decades of research has provided a plethora of evidence that erroneous judgments, or biased judgments, are often paired with high levels of confidence (i.e., overconfidence; Dunlosky & Metcalfe, 2009; Klayman, Soll, González-Vallejo, & Barlas, 1999; Koriat, 2012; Simon, Houghton, & Aquino, 2000). Therefore, the *dual-process framework of interview bias* proposes that interviewers will report higher levels of confidence in their judgment and performance when making biased decisions. Additionally, the *dual-process framework of interview bias* proposes that this effect originates in the rapport-building stage, and is driven by two processes.

First, the framework proposes a direct effect of the applicant's stigma, during rapport-building, on the interviewer's post-interview confidence. Moreover, the strong belief that is associated with the interviewer's impression of stigmatized applicants (i.e., FOR), and the resilience to update first impressions during the interview, may result in overconfidence (Thompson et al., 2009). Secondly, overconfidence may also be an effect of the interviewers' behavioral reactions towards the stigmatized applicants. More specifically, when interviewers observe the applicant's stigma, negative behavioral reactions are initiated (i.e., Type 1 processes). However, expressing these negative behavioral impulses is undesirable given the potential legal and social consequences (Dipboye & Johnson, 2013). The interviewer's goals during rapport-building are to make a favorable and professional impression on the applicant (Chapman & Zweig, 2005). Therefore, interviewers may tend to overrule the automatic negative impulses, and consciously control their behavior during the rapport-building stage (i.e., Type 2). As Type 2 processes are rule-based and goal-oriented, the *dual-process framework of interview bias* proposes that

interviewers will display more positive behaviors that successfully present a professional image of the interviewer to the stigmatized applicant.

Both processes that are proposed to drive interviewer's overconfidence after interviewing stigmatized applicants were assessed in Chapter 4 ($N = 193$ interviewers). Chapter 4 used the same sample and procedure as in Study 3.2, but assessed different propositions through not otherwise reported dependent variables. Specifically, following the rapport-building stage, the applicant judged the interviewer's professional performance. At the end of the interview, interviewers reported their post-interview confidence in their performance and judgments. The results show that interviewers reported significantly higher levels of confidence only when the applicant's stigma was present and visible to the interviewer during the rapport-building stage. This finding provides support for the proposed direct effect of the applicant's stigma, during rapport-building, on interviewers' post-interview confidence.

Secondly, Chapter 4 shows that interviewers' interpersonal performance during the rapport-building stage was judged as more professional following rapport-building with a stigmatized applicant compared to a non-stigmatized applicant. In addition, this level of professional performance, judged by the applicant, positively predicted the interviewers' self-reported post-interview confidence. Thus, the increased and successful efforts by the interviewer to establish rapport with the stigmatized applicant, and present themselves as professionals during the rapport-building stage, positively affected the interviewer's post-interview confidence.

In sum, the findings of Chapter 4 confirm Daniel Kahneman's concept of illusion of validity, and shows the direct and indirect effects of applicant stigma, during rapport-building, on interviewer confidence. First, the stigma facilitates the initial impression formation process that is associated with higher levels of confidence in their impression (i.e., FOR). Second, the presence and visibility of the stigma during rapport building appeared to initiate goal-oriented and rule-based consciously controlled behavior. This behavioral adaptation positively affected the interviewer's professional performance, as rated by the applicant, during the rapport-building stage, and increased the interviewer's post-interview confidence.

The Boundary Effects of Interview Bias

Much of the research has focused on the negative effects of applicant stigma on interview outcome. The *dual-process framework of interview bias* approaches applicant stigma as a source of information that facilitates heuristic judgments, such as initial impressions. Heuristic judgments are derived from the observer's impression of the applicant's physical characteristics (i.e., appearance, stigma; Chapter 3), and related abstract properties such as similarity, surprisingness, and affective valence (Kahneman, 2003b). Given that perceived similarity of applicant personality and values with the personality and values of the interviewer is positively affect interview outcome (Cable & Judge, 1997; Vivian Chen, Lee, & Yvonne Yeh, 2008), this may provide a boundary condition for the generally expected negative effects of applicant stigma on interview outcomes. In other words, the applicant's stigma can be perceived as a cue for traits and values that are positively valued by the interviewer. Hence, due to processes of perceived similarity, the *dual-process framework of interview bias* further proposes that stigma may positively rather than negatively influence the interview outcome, under specific conditions.

Chapter 5 investigates the effect of tattoos in the selection context. Tattoos are generally expected to negatively influence the applicant's chances in a selection procedure (Dale, Bevill, Roach, Glasgow, & Bracy, 2009). However, tattoos may also signal creativity and uniqueness, which are traits captured under the "openness to experience" construct. Hence, when interviewers are high in openness to experience, the tattoo may serve as a signal that increases perceived similarity and accordingly has a positive influence on the interview outcome (Cable & Judge, 1997; Vivian Chen, et al., 2008).

This counterintuitive proposition was tested with two empirical studies. The first study (Study 5.1) applied an in-person audit with 67 applications to test the effects of applicant tattoos in a real-world hiring setting. Specifically, confederates acting as job seekers applied in person at various Belgian-based offices of an international recruitment agency. The applicants' backgrounds were matched (i.e., no differences in education, experiences, hobbies), and only the tattoo (i.e., present vs. absent) was manipulated. This study was conducted in a recruitment agency that is generally considered to be high on openness to

experience. Results showed that tattoos may benefit applicants in this specific context, as applicants with a tattoo received *more* job offers than applicants without a tattoo. Overall these results show that the positive effects of tattoos in selection can happen in a real-world selection context that was characterized by a generally high openness to experience among recruiters.

To directly assess the effect of the interviewers' openness on the judgments of tattooed applicants, a second and more controlled experimental study was conducted in the lab among professionals (Study 5.2; $N = 80$ HR-professionals). Results show that HR-professional's openness to experience moderated the effects of tattoos in selection. Specifically, only when interviewers were high on openness to experience, tattoos resulted in more positive judgments compared to judgments of applicants without a tattoo. Judgments by HR-professionals who were relatively low on openness to experience were not influenced by the presence/absence of the tattoo

In sum, the findings of Chapter 5 show that there are important boundary conditions to the general notion that applicant stigma will always negatively influence interview outcome. Stigmatizing factors, such as a tattoo, may also be perceived as signals of traits that are valued by the interviewer, and in doing so positively influence interview judgments.

STRENGTHS AND THEORETICAL CONTRIBUTIONS

The current dissertation adds to the literature in a number of meaningful ways. First, in response to consistent calls in the literature (Arvey, 1979; Derous, Ryan, & Buijsrogge, 2013; Macan & Merritt, 2011), a comprehensive theoretical framework was formulated (Chapter 2) that identifies the processes driving biased decisions in interviews. The *dual-process framework of interview bias* addresses *how* stigmatizing applicant characteristics affect the interviewer's decision-making process and result in bias. Specifically, the framework challenges certain conventional ideas or common beliefs in research. For example, it challenges the general belief that (a) stereotypes result in negative initial impressions of stigmatized applicants, (b) applicant stigma will always negatively influence interview outcomes (Judge, Higgins, & Cable, 2000), and (c) the notion that interviewers will continuously show negative behaviors

towards stigmatized applicants (Hebl et al., 2002). Some of these challenges address common beliefs that have not received adequate attention in the literature, such as the relation between stereotypes and their negative effects on initial impressions (Levashina et al., 2013). The framework challenges such beliefs by proposing alternative processes that are based on dual-process theory. For instance, stereotypes do not influence the content of the initial impression but rather facilitate the speed with which the initial impressions are formed and the tendency to adjust these impressions over time. By challenging existing beliefs, and by proposing alternative theoretical accounts for the processes that drive interview bias, the framework presents alternative avenues for future research.

We also observed other challenges for well-established findings in the literature. For instance, the framework challenges the conventional idea that applicant stigma will unavoidably negatively influence interview outcomes by addressing boundary conditions (like similarity effects in recruiters) and in doing so nuancing the generality of the idea that bias against stigmatized applicants is always negative/discriminatory. Similarly, negative behavioral reactions towards stigmatized individuals is a well-established phenomenon in social psychological literature. This finding has been replicated in more informal hiring contexts in which stigmatized applicants interacted with store managers (Hebl et al., 2002; King & Ahmad, 2010; Ghumman & Ryan, 2013). However, specific factors related to the interview, such as the interviewer's assorted goals, and the formality of the interview (e.g., legal consequences of displaying biased behaviors), may initiate the need to consciously control behavior against stigmatized applicants and result in less negative – and even positive – reactions and behaviors. By seeking parallels in theory of the central components of bias while acknowledging the specific contextual factors of the interview, this framework presents a fine-grained and sometimes counterintuitive picture on the processes driving bias in job interviews.

One of the strengths of the framework is the integration of well-established theories and findings from the fields of cognitive psychology, industrial and organizational psychology, and social psychology. This integration presents a unique interdisciplinary framework that is able to link the

effects of stigma usually considered exclusively within each field of psychology. For example, visually stigmatized applicants may require interviewers to consciously control their behavior for professional/ethical reasons (i.e., I/O psychology). However, this kind of behavioral control draws on cognitive resources which in turn reduce the interviewer's ability to overcome initial impressions through anchoring and may paradoxically result in hiring discrimination (i.e., cognitive psychology). Therefore, by integrating these interrelated fields in psychology, the framework addresses the complex nature of bias in the context of the job interview.

Secondly, Chapter 3 showed that bias originates in the initial impression formation process as a result of the interviewer's inability and unwillingness to engage in individuation. Contrary to concerns raised in the literature, perception of the stigma during rapport building does not directly lead to a negative initial impression. However, it does result in a robust initial impression that is not adjusted based on new job-relevant information. The strength of this chapter lies in the assessment of *unobtrusive cognitive processes*, such as fixations on the stigma and the elaboration of the initial impression. An additional strength in this chapter is found in the assessment of the interviewer's initial impressions of the applicant following rapport-building, and the final evaluation in a face-to-face interview conducted by experienced interviewers. A final strength of Chapter 3 is the development of a theory-driven intervention method aimed to reduce bias (i.e., partially-blind interviewing).

Third, the main theoretical contribution of Chapter 4 is that it shows that interviewers are overconfident in their judgment after having interviewed stigmatized applicants. This finding illustrates the illusion of validity (i.e., interviewer confidence in their performance and judgments), and establishes a link between applicant stigma, judgment bias and overconfidence in an interview context. One additional contribution of this chapter is that it indicates that overconfidence is rooted in rapport-building, and that it is also influenced by the interviewer's professional performance during this stage. The realistic setting, in which this study was conducted, is an important strength of this study that increases the generalizability of these findings to the field.

Finally, Chapter 5 contributes to the literature by showing that tattoos, under specific circumstances, can have a positive effect on interview outcome. Chapter 5 establishes important boundary conditions to interview bias. The methodological-triangulation of findings, which was proposed in Chapter 2, is a considerable strength of this chapter. Additionally, both studies in Chapter 5 were conducted among samples of experienced recruiters. Finally, this chapter is a first stringent test of signaling theory in the selection interview context, and in doing so highlights its role in interviewer's decision-making on stigmatized applicants.

PRACTICAL IMPLICATIONS

In their review of the literature on discrimination and stigmatization in interviews, Macan and Merrit (2011) note that "A more systematic framework would advance our understanding of the underlying processes influencing discrimination towards applicants with disabilities in employment interviews and lead to more effective practical recommendations for interviewers and applicants" (p. 399). The framework that is presented in this dissertation addresses this call. It provides a theoretical basis upon which to design intervention methods to reduce the effect of the applicant's stigma on the interviewer's decision-making process. Hence, practical implications of this dissertation focus on diminishing interview bias by addressing key factors in the manifestation of bias.

The main implication is that the interview procedure, as it is used in practice today, may need to be adjusted in order to reduce bias. The need to reform the selection interview has already been expressed from a legal standpoint (Cohen, 1987), and was recently argued from a validity standpoint (Levashina et al., 2013). Moreover, Cohen addressed concerns regarding the influence of appearance, and visible stigma, on interview outcome and proposed fully blinded interviews to avert hiring discrimination against stigmatized applicants. Levashina and colleagues, on the other hand, advocated to completely eliminate rapport-building in job interviews to avoid contamination of the interviewer's decision by impressions based on job-irrelevant information. However, fully-blinded interviewing appears to be an intervention that may be

too radical and Cohen already noted that practitioners may resist against such an adaptation of the interview procedure. Additionally, forming initial impressions on others is inherent to human nature (Bar, Neta, & Linz, 2006), and not restricted to the rapport-building stage of an interview. Hence, eliminating the rapport-building stage may not eliminate the interviewer's tendency to form initial impressions that may bias decision-making (Barrick, Swider, & Stewart, 2010). Therefore, the first practical implication of this dissertation is that elimination of rapport building is unnecessary, and may even reduce the opportunities to counter the negative effects of applicant stigma on the interviewer's decision-making process. Interviews would benefit from less intrusive theory-based adaptations to the interview procedure. Building on the proposed *dual-process framework of interview bias*, and the findings of the empirical chapters, three alternatives are proposed.

First, given the central role of initial impressions in the interviewer's decision-making process, interviewers should be able to form an initial impression of applicants that is not interfered or driven by the presence of the stigma. Simply put, if interviewers are unaware of the stigma during the initial-impression formation process, it will not affect the initial impression formation process, thereby avoiding the long-term effects that are found to drive interview bias. Given the focus of this dissertation on stigma that are manifested visually, partially-blind interviews may be an interesting adjustment to the interview procedure to reduce interview bias. To some extent, partially-blind interviews could be regarded as a standardized or structured rapport-building procedure (Levashina et al., 2013). However, rather than structuring the verbal information that is available to the interviewer during rapport-building, partially-blind interviews structure the sources of information that are available to the interviewer, and limits this information to the source that does not include the stigma (i.e., verbal information). The partially-blind interview may have implications beyond reducing interview bias. For example, partially-blind interviews may increase interviewer objectivity and interview validity as it reduces the impact and effects of the applicant's stigma on the interviewer's decision-making process.

Partially-blind interviews may also decrease the interviewer's need to adjust or control behavior when interviewing a stigmatized applicant, thereby reducing the cognitive depletion throughout the interview. Application of this procedure may limit the interviewer's accountability for bias and reduces the risk of legal consequences. Finally, partially blind interviews may positively affect how applicants perceive the organization. Because such an adaptation is primarily aimed at increasing the objectivity of the interviewer, this may have a positive effect on the perceptions applicants have of the organization and the selection procedure (Gilliland, 1993). Practical implementation of this procedure can be achieved relatively easily, for instance by drawing a curtain between the interviewer and the applicant during rapport-building. Practitioners may also be less resistant against partially-blind interview procedure, compared to the resistance expected by Cohen (1987) against fully-blind interviews, as it still allows interviewers to have a face-to-face interview following the blind rapport-building stage.

Second, one additional factor in the biased decision-making process is the interviewer's reluctance to make adjustments to the initial impression, suggesting a motivational factor drives interview bias. When judging stigmatized applicant's interviewers appear to have a reduced need to form a thorough understanding of the applicant by updating the existing impression during the interview stage. This finding suggests that interviewers seize and freeze upon the initial impression formed during rapport building. Seizing and freezing of initial impressions is an indication of a low epistemic motivation, or the interviewer's need to form a thorough understanding of situation or problem (Kruglanski, 1989; 2004). Therefore, intervention procedures could be aimed at triggering the interviewer's epistemic motivation following rapport building.

One structural intervention procedure to increase interviewer's epistemic motivation may be through systematic reflection, on their experiences and impressions of the applicant, following the rapport-building stage (for an excellent review of the positive effects of reflection, and suggestions on how to implement this, see Ellis, Carette, Anseel, & Lievens, 2013). Reflection may also alleviate the interviewer's emotional reactions that are triggered by the applicant's stigma. Moreover, when observing an emotional stimulus, such as a

stigma, the primary response is to suppress the often negative emotions (Gross, 2002) and consciously control behavior (Pryor et al., 2004). As both these responses draw on the interviewer's self-regulatory resources (Gross, 2002; Vohs, Baumeister, & Ciarocco, 2005), this process makes interviewers more vulnerable to bias during the decision-making process (Madera & Hebl, 2012; Muraven & Baumeister, 2000). Reflection by the interviewer following the rapport-building stage may therefore also initiate reappraisal of the situation, and down-regulate the emotional reactions in response to the stigma (Gross, 2002). Practically this adaptation to the interview process would require to implement an opportunity for interviewers to reflect on their experiences and impressions of the applicant directly after the rapport-building stage and prior to the interview stage. To facilitate the process of reflection, structured reflection-forms or on-line reflection tools may be developed that are available to the interviewer.

Third, the relative large weight placed on the initial impressions that are developed during rapport-building may also be an effect of the interview decision-making procedure. More specifically, in theory interviewers conduct the complete interview and following this interview they make the interview judgments (Dipboye & Johnson, 2013). This sequential nature of interview decision-making process, with one decision-making stage following a long and complex presentation of information, is similar to what is known in the literature as an end-of-sequence (EoS) decision-making procedure (Hogarth & Einhorn, 1992). Such EoS decision-making procedures are highly sensitive to the initial information that is presented (i.e., primacy effect). An alternative decision-making procedure is the step-by-step (SbS) procedure, during which the decision-maker needs to express their beliefs or current impression following each piece of information that is presented, thereby forcing them to update the impression multiple times. Hence, interview scoring procedures may be developed that are more SbS-based and in doing so reduce the demands on the interviewer posed by the EoS procedure.

Structured interview procedures, such as the behavioral interview, would allow for such an adaptation from EoS to SbS decision-making procedure. Moreover, in behavioral interviews sets of questions are prepared to assess

specific applicant skills or traits important to execute the specific job, for example the applicant's ability to work in a team (i.e., teamwork). Then, in a SbS procedure, after the applicant has answered one question aimed to assess teamwork, interviewers would need to record their impressions of the applicant's teamwork ability on an anchored rating scale. This procedure would be repeated for each trait and all structured interview questions. If time constraints are an issue, interviewers may seek to make judgments per set of questions that address one specific skill. Voice recording interviews for later assessment of the applicant's answers regarding key-skills and traits may be an alternative procedure, although this assessment should preferably be done by a third party (e.g., other HR-employee).

CAVEATS AND FUTURE RESEARCH

As with most research, the current dissertation also suffers from some limitations that need to be addressed in future research. In addition to those that are already discussed in the respective chapters, this paragraph summarizes the main limitations and presents avenues for future research.

Over the recent years scholars have identified a broad range of applicant characteristics that elicit bias in interview outcome (Macan, 2009; Macan & Merritt, 2011). Although the theoretical framework presented in Chapter 2 is expected to delineate the biased decision-making process for each of these stigmatizing characteristics, empirical chapters only focus on port-wine stains (Chapters 3 and 4), and tattoos (Chapter 5). Hence, one potential limitation throughout this dissertation is that future research could investigate propositions among other stigmatized groups. Such studies may be challenging for researchers to design the appropriate methodology. For example, how to assess attention to the stigma (cf. Chapter 3, Study 3.1) when the stigma is not contained to a specific area of the face (e.g., port-wine stain) but is observed in different parts of the body (e.g., ethnicity). To overcome this challenge, researchers could apply visual search paradigms in which interviewer attention to race-specific features is assessed (for an example see Levin, 2000). Similarly, some stigmatized applicants can be categorized in multiple stigma categories as they possess multiple stigmatizing applicant factors (e.g., a pregnant woman

from an ethnic minority group; Kulik, Roberson, & Perry, 2007). The multiple-categorization problem is unaddressed in this dissertation. However, to advance the understanding of the processes driving bias the next step is to generalize these processes across different stigma, and within the formal interview context.

One implication of drawing on dual-process theory, and an assumption that runs throughout the proposed theoretical framework, is that the activation of Type 2 processes, such as regulation of behavior towards the applicant or suppression of negative emotions, draws on the limited self-regulatory resources (Evans, 2008; Gross, 2002; Vohs, Baumeister, & Ciarocco, 2005). One limitation is that the effects of interviewing stigmatized applicants on the interviewers' use of self-regulatory resources, and subsequent cognitive depletion, was not directly assessed. Although a previous study has shown that indeed interviewing stigmatized applicants draw more heavily on these cognitive resources than interviewing non-stigmatized applicants (Madera & Hebl, 2012), future studies could address these effects per interview stage. Moreover, rapport-building is considered to be an automatic process driven in large by Type 1 processes (Tice, Butler, Muraven, & Stillwell, 1995), whereas the interview stage already requires interviewers to engage in conscious processing and is therefore largely driven by Type 2 processes. Thus, when Type 2 processes are activated during rapport-building in reaction to the stigma, differential application of self-regulatory resources may be largest in this stage (i.e., relative low demands when interviewing non-stigmatized applicants, relative high demands when interviewing stigmatized applicants). Additionally, given that the interview process is generally already considered to place high demands on the interviewer (Dipboye & Johnson, 2013), future research could assess if the applicant's stigma increases the cognitive load placed on the interviewer during this stage, or if these cognitive resources are applied to achieve other goals. For example, do interviewers apply more self-regulatory resources to account for the additional reactions (e.g., behavioral control), or do interviewers engage in new tasks (e.g., behavioral regulation) at the cost of the regular tasks (e.g., information search and processing). In other words, do demands increase during the interview stage when interviewing a stigmatized applicant, or are these cognitive resources applied to different tasks.

Currently there appears to be a general consensus that interview bias against stigmatized applicants is a result of the interviewer's stereotypical associations when making the final judgment (Landy, 2008). This process has resulted in the common understanding that such stereotypes have a negative effect on the interviewer's initial impression of the stigmatized applicant. However, dual-process theory, and theory on metacognition, suggests that this does not need to be so. Moreover, dual-process theory does not dispute the activation of such stereotypes, it suggests that these stereotypes facilitate the speed with which the initial thought (i.e., heuristic output or initial impression of the applicant) is activated (Thompson, 2009). Hence, the common conception that interview bias, or lower interview scores, is a direct effect of (implicit) stereotypes may be oversimplified, as dual-process theory suggests this may be an effect of anchoring due to the rapid formation that is facilitated by the activated stereotypes. Hence, these activated stereotypes may not need to be applied in the decision-making process, as their biasing effect may just lie in the initial impression formation process. One caveat in the current dissertation is that these stereotypes were not directly measured. Future studies should address the respective roles of stereotype activation and stereotype application in the interviewer's biased decision-making process throughout the various stages of the interview.

A final limitation of the studies in this dissertation is the abstraction of the job interview from the other components of a more extended selection procedure. Despite that the job interview is a popular tool among practitioners, and is often the only selection tool used to make a final hiring decision after having selected a pool of applicants from the initial applications through résumé or online application procedures, the selection context can also be more complex (Sackett & Lievens, 2008). There are a wide variety of selection tools available that could be used to screen applicants prior to the interview. For example, cognitive ability tests are continuously used to screen applicants (Schmidt & Hunter, 1998), and through substantial innovations, the situational judgment test is gaining in popularity (De Soete, Lievens, Oostrom, & Westerveld, 2013). Therefore, future studies may address whether the incorporation of test scores from ability tests or situational judgment tests affects the final hiring decision

above and beyond applicant stigma. Important may be the timing at which the test scores become available to the interviewer, as the presentation of these scores prior to rapport-building (i.e., when the interviewer becomes aware of the applicant's stigma) may affect the formation of the initial impression. Put differently, one may investigate whether biased decision-making due to stigma information might be averted if interviewers have advance knowledge about applicants' test scores, but not about the applicant's stigma.

Certain contextual factors have been kept constant in the presented studies, including applicant gender (i.e., gender is kept constant within each chapter), type of job, and job related characteristics (i.e., front- vs. back-office; white- vs. blue collar), level of interview structure, and type of structured interview (behavioral interview vs. situational interviewing). The most convincing future study would be to implement some of the practical implications (e.g., partially-blind interview) in real-life practice and assess their long-term effects on bias in hiring decisions. However, as such a study may be difficult to realize, researchers may seek to investigate the effect of contextual factors by stepwise expanding the research context to eventually mimic real-life selection procedures.

CONCLUSIONS

One of the few job interviewers to ever receive a Nobel Prize is Daniel Kahneman. His experiences as an interviewer when assessing candidates for officer training in the Israeli army inspired his Nobel prize-winning research on heuristics and biases (Kahneman, 2003a). Given this origin, it is somewhat ironic that the heuristics and biases approach and the closely related dual-process theory are rarely applied as a theoretical framework underlying interview decision making and interview bias (Dipboye, Macan, & Shahani-Denning, 2012). This dissertation builds upon dual-process theory and theory on heuristics, as a framework of interview bias. The different studies, each investigating propositions made by the theoretical framework, show that dual-process framework is a valuable framework for investigating interview bias. By drawing parallels with recruiters' reactions to stigmatized applicants, and projecting this process on the various stages of the interview, the dissertation

provides insight into the origin, evolution, and likely of the self-sustaining nature (i.e., through high confidence) of bias in interview outcomes. Additionally, evidence is provided for the occurrence of positive bias, which is counterintuitive but a recurring finding in specific contexts. In conclusion, by re-introducing dual-process theory as a framework for biased decision in job interviews this dissertation advances the understanding of the processes driving such decisions, and provides a basis for the further development of bias-reducing intervention methods in personnel selection settings.

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DUTCH SUMMARY

AFWIJKENDE INTERVIEW BEOORDELINGEN VAN SOLLICITANTEN MET EEN STIGMA: EEN DUAAL PROCES BENADERING

INTRODUCTIE

Het selectie interview is een van de meest populaire, en meest gebruikte, selectie instrumenten in de praktijk (Ryan & Ployhart, 2014). In veel gevallen is het interview het enige selectie instrument dat wordt gebruikt, of wordt de ultieme aanwerfbeslissing genomen op basis van het interview (Levashina, Hartwell, Morgeson, & Campion, 2013). Ondanks deze centrale en belangrijke rol in de praktijk is er ook kritiek op het interview als selectie instrument, en worden er vraagtekens geplaatst bij de objectiviteit van de beoordelingen. Een bulk aan onderzoek heeft aangetoond dat wanneer een sollicitant een stigmatiserende eigenschap (stigma) bezit dit de eindbeoordeling veelal negatief kan beïnvloeden (zogenaamde bias). Zo is bekend dat sollicitanten worden gediscrimineerd op basis van stigma zoals overgewicht (Puhl & Heuer, 2009), huidskleur of etniciteit (Van Iddekinge, Raymark, & Roth, 2005), en fysieke malformaties zoals een wijnvlek in het gezicht (Madera & Hebl, 2012).

Samen met de groeiende kennis over de verschillende stigma die de interview beoordeling (negatief) beïnvloeden, groeit ook de roep om een systematisch raamwerk dat de onderliggende processen in kaart brengt (Arvey & Campion, 1982; Macan & Merritt, 2011). Echter, ondanks de focus in de literatuur op het identificeren van verschillende stigma, richt verassend weinig onderzoek zich op de interviewer, en meer specifiek op het beslissingsproces (Posthuma, Morgeson, & Campion, 2002). Meer kennis over hoe een stigma het beslissingsproces van de interviewer beïnvloedt, kan leiden tot praktische aanbevelingen om dit negatieve effect te verminderen (Macan & Merritt, 2011). Daarom is het algemene doel van dit proefschrift om tegemoet te komen aan de nood voor een beter inzicht in de algemene, onderliggende, en verklarende

mechanismes die aan de basis staan van afwijkingen of bias in het beslissingsproces van de interviewer (Deros, Ryan, & Buijsrogge, 2013).

BIJDRAGE EN BEVINDINGEN VAN DIT PROEFSCHRIFT

In Hoofdstuk 2 wordt een systematisch raamwerk geïntroduceerd dat de rode draad vormt door dit proefschrift. Dit duaal proces raamwerk van interview discriminatie benadrukt de rol van twee verschillende processen (Type 1 en Type 2 processen) in het tot stand komen van discriminatie in interview beslissingen. Het raamwerk baseert zich hiermee op het duaal proces model, één van de meest fundamentele benaderingen in de sociale- en cognitieve psychologie (Chaiken & Trope, 1999; Evans & Stanovich, 2013; Samuels, 2009; Strack & Deutsch, 2004), die reacties ten opzichte van gestigmatiseerde individuen kan verklaren (Pryor, Reeder, Yeadon, & Hesson-McInnis, 2004).

Het interview kan gezien worden als een sociale interactie tussen een interviewer en geïnterviewde (sollicitant) die bestaat uit verschillende fases (kennismakingsfase en interview fase) met elk haar eigen finaliteit. Het duaal proces raamwerk beschouwt elke fase als een bouwsteen in het beslissingsproces, en dus ook van eventuele bias in dit beslissingsproces. Zo worden per fase specifieke proposities met betrekking tot de effecten van stigma op de informatieverwerkingscapaciteit, beoordelingen, en het gedrag van de interviewer geformuleerd. Enkele centrale proposities van dit duaal proces raamwerk zijn vervolgens in de empirische studies getest.

In Hoofdstuk 3 werd onderzoek gedaan naar de origine en ontwikkeling van discriminatie in het beslissingsproces doorheen de verschillende interview fases. Dit werd gedaan door middel van twee empirische studies. In de eerste, experimentele studie (Studie 3.1) lag de focus lag op de oorsprong van bias. Hierbij werd specifiek gekeken naar de effecten van stigma (een wijnvlek in het gezicht) op de cognitie van de interviewer gedurende de kennismakingsfase en de interview fase. In deze studie werd aangetoond dat in de kennismakingsfase de interviewer zich vooral richtte op het stigma van een gestigmatiseerde sollicitant en daardoor weinig aandacht heeft voor de verbale informatie. Wanneer een interviewer wel aandacht had voor verbale informatie in de kennismakingsfase, dan resulteerde dit in minder bias en discriminatie van de

gestigmatiseerde sollicitant. Dit geeft aan dat de initiële impressie van gestigmatiseerde sollicitanten een invloed heeft op de eindbeoordeling. In de beoordeling van niet-gestigmatiseerde sollicitanten werd er geen evidentie gevonden van het belang van initiële impressies. Echter, de eindbeoordeling werd positief beïnvloed door de mate waarin de interviewer informatie heeft onthouden uit de interview fase. Interviewers baseren hun eindbeoordeling over niet-gestigmatiseerde kandidaten op functie-relevante informatie. Omdat de eindbeoordeling van gestigmatiseerde sollicitanten vooral wordt beïnvloed door de initiële impressie, en niet door de functie-relevante informatie, is er evidentie dat in het beoordelingsproces van gestigmatiseerde sollicitanten sprake is van verankering (Tversky & Kahneman, 1974). Meer specifiek vinden we dat beoordelingen van gestigmatiseerde sollicitanten vooral zijn gebaseerd op de initiële impressie (het anker), en dat interviewers deze niet of nauwelijks aanpassen gedurende het interview op basis van functie-relevante informatie.

De effecten van verankering werden getest in Studie 3.2 waarin 193 interviewers een sollicitant interviewden en beoordeelden in een live-interview setting. In deze studie werd zowel het stigma van de sollicitant (een wijnvlek in het gezicht / geen wijnvlek in het gezicht) als de interview procedure (traditioneel / gedeeltelijk blind) gemanipuleerd. Naast het traditionele interview, waarbij interviewer en sollicitant elkaar van start tot eind kunnen zien, introduceerden we het gedeeltelijk-blinde interview waarbij de interviewer de sollicitant niet kon zien gedurende de kennismakingsfase. Deze manipulatie diende om de negatieve effecten van het stigma gedurende de initiële impressie informatie te voorkomen. Tevens rapporteerden de interviewers hun impressie van de sollicitant na de kennismakingsfase (initiële impressie), en na het interview (eindbeoordeling). De resultaten toonden aan dat in traditionele interviews de interviewers hun initiële impressie van niet gestigmatiseerde sollicitanten positief aanpasten gedurende de interview fase. De interviewers pasten hun initiële impressies van gestigmatiseerde sollicitanten niet aan gedurende de interviewfase (de eerste indruk bleef ongewijzigd). Echter, in het gedeeltelijk-blinde interview vonden we dat interviewers de initiële impressie van zowel gestigmatiseerde als niet gestigmatiseerde sollicitanten positief aanpasten. Deze resultaten liggen in lijn met de bevindingen uit Studie 3.1 en

tonen dat wanneer de initiële impressie is gebaseerd op stigmatiserende informatie deze initiële impressie het beslissingsproces ‘verankert’.

In Hoofdstuk 4 werd verder gebouwd op bevindingen uit Studie 3.2, en gekeken naar de invloed van het stigma van de sollicitant op het vertrouwen van de interviewer in zijn/haar beoordeling. Op basis van het duaal-proces raamwerk van interview discriminatie werd vooropgesteld dat interviewers een hoger vertrouwen zouden rapporteren in hun beoordelingen wanneer deze van een gestigmatiseerde sollicitant zijn. Inderdaad, de resultaten toonden dat interviewers hogere niveaus van vertrouwen in hun beoordelingen en prestatie rapporteerden na een interview met een gestigmatiseerde sollicitant. Twee mogelijke onderliggende processen werden onderzocht, en voor beiden vonden we evidentie. Het eerste proces stelde dat er een direct effect van het stigma is op het vertrouwen dat een interviewer heeft in de beoordeling. De verklaring hiervoor is dat interviewers zich in de beoordeling van gestigmatiseerde sollicitanten grotendeels baseren op snel gevormde initiële impressies. De snelheid waarmee deze initiële impressies gevormd worden, gaat gepaard met een hoge mate van vertrouwen (Thompson, 2009). Het tweede en indirecte proces waarvoor evidentie werd gevonden, is een positieve aanpassing in gedrag ten opzichte van de gestigmatiseerde sollicitant tijdens de kennismakingsfase. We vonden dat interviewers zich professioneler gedroegen tijdens de kennismaking met een gestigmatiseerde sollicitant (beoordeeld door de sollicitant); deze professionele houding bleek een belangrijke voorspeller van overmatige zelfvertrouwen. Het gedeeltelijk-blinde interview verlaagde het direct en indirecte effect van stigma, en resulteerde in gelijke niveaus van vertrouwen in beoordelingen en prestatie bij interviewers.

Naast de focus op de negatieve effecten van stigma richt Hoofdstuk 5 zich op de randvoorwaarden voor discriminatie. Meer specifiek lijkt er een algemene aanname te bestaan dat afwijkende uiterlijke kenmerken altijd leiden tot discriminatie (Judge, Higgins, & Cable, 2000). Echter stelt het duaal-proces raamwerk van interview discriminatie voor dat er bij observatie van het stigma verschillende stereotypen worden geactiveerd, en dat sommige daarvan niet negatief hoeven te zijn maar een positief effect kunnen hebben onder bepaalde randvoorwaarden. Eén van die randvoorwaarden is de mate waarin de

geactiveerde stereotypen gewaardeerd worden door de interviewer. We onderzochten deze propositie met tatoeages, welke volgens recent onderzoek een negatief effect zouden moeten hebben op selectie beslissingen (Dale, Bevill, Roach, Glasgow, & Bracy, 2009). Echter, tatoeages hoeven niet negatief gepercipieerd te worden omdat deze ook kunnen worden gezien als een uiting van iemands' creativiteit en nood om zich te uiten als uniek persoon, eigenschappen die vallen binnen de persoonlijkheidstrek openheid voor ervaringen (McCrae, 1987; McCrae & Costa, 1997). In een selectie context die gekarakteriseerd wordt door een hoge mate van openheid voor ervaringen zou een tatoeage geen negatief maar juist een positief effect kunnen hebben op de selectie beslissingen.

In Studie 5.1 vonden we evidentie voor deze propositie. In een experimentele veldstudie hebben sollicitanten (met of zonder tatoeage) zich aangemeld bij verschillende kantoren van een rekruteringsbedrijf ($n = 67$) waarvan de werknemers relatief hoog scoren op openheid voor ervaring. Sollicitanten met een tatoeage kregen meer jobaanbiedingen dan sollicitanten zonder tatoeage. In Studie 5.2 werd een potentieel modererend effect van openheid verder onderzocht. In een experimentele labstudie bekeken en beoordeelden 80 ervaren HR-professionals een interview met een sollicitant die wel of geen stigma had. Ook rapporteerden deze HR-professionals hun openheid voor ervaring op basis van een Big-five persoonlijkheidsvragenlijst. De resultaten bevestigden onze hypothese dat het verschil in de beoordeling van sollicitanten met en zonder tatoeage afhankelijk was van de openheid voor ervaring van de interviewer.

ALGEMENE CONCLUSIE

In de afgelopen decennia is er veel onderzoek verricht naar discriminatie en bias in selectie interviews. Dit onderzoek is grotendeels beschrijvend van aard. Ondanks de nieuwe inzichten, liggen de uitdagingen voor onderzoekers op het vlak van de algemene, onderliggende, en verklarende mechanismes die aan de basis liggen van interview discriminatie en bias (Deros et al., 2013). Omdat relatief weinig onderzoek gebruik maakt van besluitvorming- en beslissingstheorieën (Posthuma et al., 2002), blijft een systematisch raamwerk

van processen die leiden tot discriminatie en bias in interview beslissingen uit (Arvey & Campion, 1982; Macan & Merritt, 2011). Het huidige proefschrift wil tegemoet komen aan deze vraag naar meer kennis over de onderliggende mechanismes die leiden tot bias in interview beslissingen en discriminatie.

De meeste studies over bias in het interview, richten zich op de sollicitant (wel of geen stigma) en het resultaat (wel of geen discriminatie). Het huidige proefschrift vertrekt vanuit de stelling dat de interviewer een centrale rol speelt in het interview, en ook bij interview bias. De interviewer is immers diegene die informatie verzamelt, informatie verwerkt, en beslissingen neemt. Echter, in tegenstelling tot robots, machines of gevalideerde testen, zijn mensen – en dus ook interviewers – geen rationele informatieverwerkers, maar zijn ze kwetsbaar voor bias. Door dit uitgangspunt ligt de focus van het beschreven onderzoek op de effecten van het stigma op de processen die leiden tot de uiteindelijke beslissing. Bevindingen met betrekking tot de oorsprong en ontwikkeling van bias en discriminatie gedurende het interview, vormen een basis voor het ontwikkelen van structurele interventie methoden. Met het oog op de grote nood aan eerlijkheid en objectiviteit in interview beslissingen (Cohen, 1987; Levashina et al., 2013) kunnen zowel toekomstig onderzoek, als bedrijven en organisaties, baat hebben bij het onderzoeken en implementeren van structurele aanpassingen aan het selectie interview om zo onterechte discriminatie en bias te verminderen.

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