

# The Impact of Smile Intensity on Hiring Decisions in China

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## Abstract

This study examined the effect of job applicants' smiles on recruitment decisions using Chinese participants. In an experimental study, 305 Chinese participants were requested to rate the smiling behaviors of male and female job applicants at six different smile intensities. This study showed that perceived credibility is an important moderator of the effect of smiles on hiring. During the job interview process, job applicants' emotional displays, such as smiles, play a crucial role in making a positive impression. Earlier investigations have explored the influences of genuine emotional expressions on service satisfaction, but empirical research on the joint effects of smile intensity and job applicant gender is scarce, especially in China. To address this gap, this research examined the impact of this interaction on job applicants' perceived reliability. Our results showed that bright smiles were perceived as more reliable when job applicants were female (but not male). In contrast, faint smiles were more consistent with male stereotypes, leading to higher perceptions of reliability. This study further suggests that perceived credibility is a psychological mechanism that can explain the link between smile intensity and recruitment decisions.

**Keywords:** Smile intensity, Nonverbal behavior, Perceived credibility, Recruitment decisions, Gender stereotypes, gender stereotypes

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## Introduction

*The human race has one effective weapon, and that is laughter. - Mark Twain*

Smiling is a universal facial expression that plays an important role in interpersonal relationships (Hall, 2009). Research suggests that a smile not only influences others' emotions but also contributes to forming first impressions of interaction partners. For example, smiling conveys characteristics of friendliness and trustworthiness (Schnall & Laird, 2003). In the context of job recruitment, a job seeker's nonverbal behavior—such as smiling, eye contact, and body language—is considered an important signal of their competence and attitude (Barrick et al., 2009). However, existing literature primarily focuses on the expression and impact of smiling in Western cultures, while systematic research on the social function of smiling and its influence on recruitment decisions within the unique cultural context of China remains insufficient. This study aims to explore the influence of job applicants' gender and smile intensity on recruitment decisions within the Chinese cultural background. Specifically, it examines how smile intensity affects the perception of applicants' trustworthiness and subsequently influences interviewers' recruitment decisions. Additionally, this study seeks to identify the moderating role of gender role stereotypes in this process.

Previous research indicates that smile intensity is closely related to social judgment. For instance, a broad smile is generally associated with higher enthusiasm, kindness, and cooperativeness (Krumhuber et al., 2007). However, cultural interpretations of smiling and gender stereotypes may significantly influence these associations. In Western cultures, smiling is often seen as a sign of confidence and openness (Matsumoto et al., 2008), whereas in China, smiling is more frequently interpreted as a symbol of politeness and humility. These differences may lead to variations in the effect of smiling in recruitment settings.

Gender differences in the effect of smiling on perceived trustworthiness have also been demonstrated in research. Studies have shown that a bright smile on women aligns with social expectations, presenting them as friendly and trustworthy (Deutsch

et al., 2007). In contrast, a bright smile on men may be perceived as inconsistent with traditional male traits (authority and seriousness), potentially reducing their perceived trustworthiness (Hess & Hareli, 2017). Wang et al. (2017) found that a bright smile could weaken perceptions of men's competence because such a smile conveys information that does not align with traditional male gender roles. On the other hand, a bright smile on women is often associated with social perceptions of honesty and trustworthiness (Otta et al., 2009). Krys et al. (2016) discovered that the interaction between smile intensity and gender roles can affect evaluations in recruitment contexts. A slight smile on men was perceived as more professional and trustworthy than a bright smile, whereas a bright smile on women was more likely to meet societal expectations for female emotional expression, leading to higher trustworthiness ratings. These studies provide a theoretical foundation for exploring the interaction between gender and smile intensity in recruitment decisions. Building on this literature, the present study aims to fill the research gap in the Chinese cultural context and reveal the dual influence of culture and gender roles on how smiling affects recruitment decisions.

The main objective of this study is to explore how different smile intensities (broad smile, slight smile, and neutral expression) influence applicants' perceived trustworthiness and recruitment decisions. Additionally, it examines whether perceived trustworthiness mediates the relationship between smile intensity and recruitment decisions. Furthermore, this study analyzes the moderating role of gender role stereotypes in this relationship, specifically investigating how male and female applicants are evaluated differently when displaying a broad or slight smile.

## Theory and Hypotheses

### *Impression Management by Smiling in Interviews*

Smiling is a common nonverbal behaviours in social interactions, and it also serves a crucial function in interview situations. The intensity of a job applicant's smile can not only affect the

interviewer's judgment of his or her characteristics but may also have an important impact on the final hiring decision. In the interview, signal exchange occurs via verbal and nonverbal IM on the part of both recruiters and applicants. Applicant verbal IM has been extensively studied, and tactics vary along two main dimensions: Assertive vs. defensive (Bolino et al. 2008) and honest vs. deceptive (Leary & Kowalski 1990; Levashina & Campion 2006 and Brosy et al. 2021) Nonverbal behaviours includes Several aspects of body language include facial expressions (smiling), eye contact, posture, gestures, and interpersonal distance. (Mehrabian 1972 and Pinto, A. P., & Sousa, C. D. 2014). This process can be regarded as IM signal exchange. Nonverbal behaviours in selection may constitute a limiting situation for strategic communication, as some non-verbal behaviours are harder to control than verbal behaviours. Instant communication by recruiters has been little researched, but a recent study (Wilhelmy et al. 2017) suggests that recruiters try to project an attractive and authentic image and attempt to demonstrate intimacy (rapport, credibility) and professional distance in interview interactions (Brosy et al. 2021). Thus, IM research has focused primarily on consciously controlled job applicant behaviours. Because deceptive IM (or fakery) is both common (Levashina & Campion, 2006, 2007) and difficult for recruiters to detect (Roulin et al. 2015), recruiters may be manipulated by job applicants. The fact that applicants' IM positively affects recruiters' evaluations and that recruiters' perceptions of applicants' IM do not align with applicants' self-reports (Roulin et al. 2014) suggests that manipulation attempts are often successful (Brosy et al. 2021) so several nonverbal interview behaviours may potentially constitute honest signals of trustworthiness, likeability, and credibility.

Of these, perhaps the least well-understood is laughter (Brosy et al. 2021). Smiling is a common and effective impression management strategy. By smiling, job applicants can convey positive emotions and friendly attitudes. Studies have shown that the intensity of a smile is positively correlated with the interviewer's favourability toward the job applicants (Jones & Pittman 1982). By smiling moderately, job applicants can create a positive self-image during the interview, thereby increasing the possibility of being hired. These variables (impression management, verbal and non-verbal behaviours) as well as appearance attractiveness are associated with interview ratings (Goldberg & Cohen 2004). In previous studies, Gifford and Wilkinson (1985) found a correlation between interviewer ratings and separate ratings of nonverbal behavior (dress code, angle of inclination, facial expressions, smiles, and gestures), while Tsai et al. (2005) found that self-reported friendliness was correlated with behaviours such as nonverbal behavioural cues (e.g., smiles and nods) correlated with interviewer ratings. However, it may be useful to translate these verbal statements into nonverbal codes to produce a categorization that can serve as a guide for selecting interviewers (Pinto, A. P., & Sousa, C. D. 2014).

### ***Job applicants' smile intensity and recruitment decisions***

The intensity of a job applicant's smile at the beginning of an interview is crucial to the interviewer's first impression. As a positive nonverbal signal, smiling can quickly convey friendliness, confidence, and optimism, thereby helping job applicants leave a deep and good impression on the interviewer at the start of the interview. The intensity of a job applicant's smile will directly affect the interviewer's perception of their personality traits. Krumhuber et al. (2007) found that job applicants with higher smile intensity are more likely to be considered friendly, enthusiastic, and cooperative. These characteristics are often regarded by interviewers as important qualities in teamwork and work environments, thereby increasing the chances of job applicants being hired. The authenticity of the smile is also an important factor influencing the interviewer's decision. Ekman and Friesen (1986) distinguished between a sincere "Duchenne smile" and an

insincere smile. The Duchamp smile not only involves the corners of the mouth rising but is also accompanied by the activity of the eye muscles and is considered to be a true expression of emotion. Interviewers are more likely to trust and like job applicants who show a Duchamp smile, thereby increasing their chances of being hired.

This study uses impression management theory and the elaboration likelihood model (ELM) to explain the relationship between job applicants' smile intensity and hiring decisions. Impression management theory holds that individuals consciously control and regulate their behaviour in social interactions to influence others' impressions of themselves (Leary & Kowalski 1990). In an interview situation, job applicants convey a positive image through a sweet smile. Job applicants can shape a positive self-image in an interview and try to influence the interviewer's judgment. Previous research has shown that some nonverbal interview behaviours may constitute honest signals of credibility, likability, and trustworthiness. These signals increase the likelihood of being hired. The Elaboration Likelihood Model (ELM), introduced by Petty and Cacioppo in 1986, explains how persuasion operates through two distinct routes: the central and the peripheral. The central pathway relies on the deep processing of information, while the peripheral pathway relies on the surface features of information and situational cues. Smiling, as a nonverbal cue, mainly influences the interviewer's decision through the peripheral pathway. When the interviewer relies on the peripheral pathway in the decision-making process, nonverbal behaviours such as smiling become particularly important. A sweet smile can improve the interviewer's overall evaluation of the job applicant through mechanisms such as emotional contagion and social recognition, thereby influencing hiring decisions. One explanation for these findings is that a bright smile is associated with greater sociability, which leads to more positive relationship outcomes (Scarr 1992). Therefore, compared with a slight smile, a broad smile may convey a stronger signal that the expresser wants to establish social connections, which increases the impression that the expresser is friendly and approachable. Therefore, we believe that a broad smile (relative to a slight smile or no smile) can enhance the positive image of the job applicant, thereby obtaining a higher evaluation in the hiring decision. (Wang et al. 2016)

**Hypothesis 1: A broad smile (versus a slight smile and no smile) will be evaluated positively in recruitment decisions.**

### ***Perceived Credibility***

Boone and Buck (2003) suggested that facial expressions are a reliable signal that builds a sense of trust amongst social interaction partners. Smiling is particularly considered a marker of trust and willingness to engage in cooperative interactions. This behaviour is common in interactive situations and is typically signalled by the Duchenne marker, which is challenging to fake (Scharlemann et al. 2001; Schmidt & Cohn 2001). Boone and Buck's (2003) hypothesis is that smiling people are often interpreted as socially trustworthy, especially during brief encounters with strangers, when there are relatively few other credibility cues available (Scharlemann et al. 2001). Previous research on trust games has found that smiling unfamiliar partners are more trusted than expressionless partners (Scharlemann et al. 2001). Newscasters who display positive rather than neutral emotions have also been described as more trustworthy (Ravaja et al. 2004).

Comparable findings were observed in research conducted by Centorrino, Djemai, Hopfensitz, Milinski, and Seabright (2011), who had respondents participate in a modified trust game in which participants were required to decide whether to invest in someone based on a motivational video. The results showed that smiling can promote cooperation because smiling people are perceived as more persuasive and trustworthy than those with a neutral face. It is claimed that people who are perceived as more credible ought

to be more persuasive (Ohanian 1990). Perceived credibility indicates the credibility of an individual and consists of three subdimensions: attractiveness, expertise, and trustworthiness (Ohanian 1990). Expertise: refers to the applicant's knowledge and skills in his or her field of expertise. Trustworthiness: refers to whether the applicant is considered honest, reliable, and upright. Attractiveness: refers to the applicant's appearance and personality charm. Although this dimension may be relatively unimportant in recruitment decisions, it still has a certain influence.

Chiang and Suen (2015) delved into the work of Kristof-Brown et al. (2005) and added interpersonal fit. This fit is based on subjective impressions, such as the applicant's opinions and background, and can also influence recruiters' hiring decisions. This interpersonal fit is guided by the peripheral pathway of the ELM, which invokes simple judgmental cues or heuristics to influence a person's attitudes. Thus, a person can positively influence a recruiter by using irrelevant cues, such as perceived trustworthiness, instead of job-related information (Chiang & Suen 2015). Especially since recruiters have limited time to carefully investigate applicants' qualifications (Kluemper & Rosen, 2009; Van der Land et al. 2016), a person's perceived trustworthiness may be an attribute that increases the positive evaluation of hiring decisions. Hausknecht et al. (2004) studied the impact of different evaluation dimensions in interviews on hiring decisions and found that expertness significantly affects interviewers' decisions. They found that the stronger the professional ability of job applicants, the more willing the interviewers are to hire them; Barrick et al. (2009) explored how the personal traits displayed by job applicants in interviews affect interviewers' recruitment decisions. They found that the credibility of job applicants, especially the performance of honesty and reliability, has an important impact on interviewers' hiring decisions. Job applicants with high credibility are considered more suitable for long-term employment and trust; McDaniel et al. (1994) meta-analysis showed that the integrity and reliability of job applicants are significantly correlated with their future work performance. The results show that interviewers are more inclined to hire job applicants who show high credibility in interviews because they are considered more reliable and trustworthy in actual work. These previous studies show that when this is related to the recruitment process, it can be said that people with high credibility will have a higher chance of persuading recruiters, thereby increasing interviewers' positive evaluation in hiring decisions.

**Hypothesis 2: A broad smile (versus a slight smile and no smile) will be evaluated positively by interviewers in recruitment decisions through perceived credibility.**

### ***Smile Intensity and Gender Stereotypes***

Social Role Theory is used to explain gender differences and social behaviour patterns. Society transmits gender role expectations and norms through various channels, thereby affecting individual behaviour. Men and women are expected and guided to assume different social roles during their growth. Gender role beliefs arise from observing that men and women assume different social roles, exhibit different behavioural differences in different situations and infer that they have corresponding personalities. Thus, both men and women are believed to possess characteristics that enable them to perform gender-typical roles. These attributes are evident in consensus beliefs or gender stereotypes" (Eagly and Wood 2011).

Based on gender stereotypes, we believe that a bright smile is inconsistent with masculinity. Men are expected to be task-oriented, competitive, and strong, traits that discourage bright smiles (Hall et al. 2000). Furthermore, Wang et al. (2017) demonstrated that a bright smile hurts perceptions of competence—a key trait attributed to men in the stereotype content model (Cuddy et al., 2008). Research has found that in some cultures, men with bright smiles may be seen as less serious or lacking in intelligence and honesty, which is inconsistent with the traditional male stereotype of

authority and seriousness. Kryes, et. al. (2016). Hess, U., & Hareli, S. (2017) demonstrated that Men smile less often in formal and authoritative situations to maintain a serious and authoritative image, while women smile more often in social and supportive situations to display socially desirable warmth and friendliness. Therefore, we believe that a broad smile is not compatible with the male action trait, temperament. On the other hand, previous research has shown that bright smiles tend to be associated with higher levels of sociability and friendliness, two attributes typical of women (Scarr 1992, Miles 2009, Wang et al. 2017 and Choi et al., 2020)). (Otta, E., Ambrosio, F.F., & Hoshino, R. L. 2009) showed that women's bright smiles are often perceived as conveying more honesty and trustworthiness, whereas men's bright smiles are perceived as less conforming to traditional images of masculinity. Kryes, et. al. (2016) Women's bright smiles are often perceived as more trustworthy and sincere. This phenomenon is consistent with societal expectations of female emotional expression and warmth. In sum, women's broad smiles are perceived as more trustworthy and friendly (Deutsch, et.al. 2007) consistent with typical female stereotypes (LaFrance and Carmen, 1980, Briton and Hall 1995).

Social role theory suggests that people are "rewarded by others for conforming to gender roles and penalized for deviating from them" (Eagly and Wood 2011, 468). Consequently, conforming to gender roles produces positive responses, while deviating from such role-based expectations elicits negative responses (Anderson et al. 2001, Carli 2001, Eagly and Wood 2011).

**Hypothesis 3: The gender of the job applicant will moderate the effect of smile intensity on perceived credibility. Specifically,**

**Hypothesis 3a: In an interview, a female job applicant's a broad smile (versus a slight smile and no smile) will receive a higher credibility evaluation and be considered more trustworthy.**

**Hypothesis 3b: In an interview, a male job applicant's a slight smile (versus a broad smile and no smile) will receive a higher credibility evaluation and be considered more trustworthy.**

## **Methodology**

### ***Study Design and Sample***

To test the hypotheses presented in Figure 1, this study employed a 3 (smile intensity: broad smile, slight smile, no smile) × 2 (job applicant gender: male, female) between-subjects factorial design. The independent variables were the job applicant's smile intensity and gender, while the dependent variables included recruitment decision scores and perceived credibility scores. Data collection was conducted online, as internet-based surveys offer faster response times and higher response rates (Fricker & Schonlau, 2002; Treadwell, 2014). A total of 315 Chinese participants were initially recruited, but 10 participants with incorrect data were excluded, leaving 305 valid responses (155 males, 150 females; Mage = 31.82, SD = 8.10). Participants were selected based on specific criteria to ensure consistency, including the absence of visual or auditory impairments and no prior experience in the relevant industry to prevent bias in recruitment decisions. The questionnaire was distributed via Google Forms, and most respondents had a bachelor's degree (35.1%), followed by 28.2% with a professional degree. In terms of interview experience, 55.4% had prior experience, while 44.6% did not. An industry distribution analysis showed that 31.8% of respondents worked in the service sector, followed by finance and insurance (21%), science, education, culture, health, and medicine (15.1%), with 6.6% representing other industries. This sample design ensured consistency in participants' physiological conditions and background experiences, minimizing potential biases caused by individual differences.



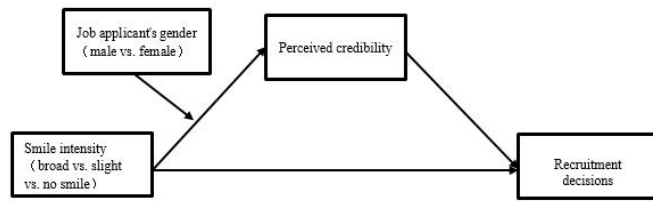


Figure 1. Conceptual Model

## Experimental Design

The experimental materials consisted of six simulated job application videos, each lasting 30 seconds. To ensure consistency, all videos featured a uniform white background, and all candidates wore dark-colored professional attire. In each video, the candidates delivered a self-introduction following a pre-written standardized script, covering basic information such as name and educational background, job-related experience including prior roles as a teaching assistant or intern, and motivation for applying along with their understanding of the company's development. To control for the effects of smile intensity and gender on recruitment decisions, standardized video materials were prepared for both male and female candidates. The female candidate, Li Fei, applied for a hotel manager position. In the video, she introduced herself in a humble yet confident tone, highlighting her educational background in business administration, her teaching assistant experience, and her enthusiasm for hotel management. Additionally, she answered questions related to her weaknesses and motivation for applying, demonstrating a strong alignment with the company's culture and career development opportunities. The male candidate, Chen Yunqian, applied for a sales position. He showcased strong verbal communication skills and emphasized his professional background, including marketing internship experience. While answering questions, he expressed a deep interest in the sales industry and discussed his career aspirations. To ensure consistency in experimental conditions, all videos were recorded under standardized settings, maintaining a white background and consistent lighting, while all candidates wore dark-colored professional attire. This rigorous standardization controlled for extraneous variables, ensuring the validity and reliability of the experimental stimuli.

## Manipulation Material

### Smile intensity

This study uses six videos as stimuli for the experiment. Each of the six videos contains two job seekers. The six videos were differentiated according to the facial expressions of the male and female job applicants. Each video consisted of three different levels of smiles for males and three different levels of smiles for females. First, the applicants in this study exhibited a Duchenne smile (Ekman, Davidson, & Friesen 1990). This type of smile expresses joy, positive emotions, and happiness (Ekman et al. 1990). This type of smile was chosen because non-Duchenne smiles or fake smiles may lead to negative emotions and less positive evaluations of job attributes such as reliability and motivation (Krumhuber et al., 2009; Bernstein, Sacco, Brown, Young, & Claypool 2010). Choosing the right smile is important because there are fifty different types of smiles, and they can all be associated with a certain emotion. (Ekman 2009). The Duchenne smile is characterized by the zygomaticus major muscle producing a diagonal stretch of the lips and the orbicularis oculi muscle elevating the person's cheeks and producing wrinkles at the outer corners of the eyes, also known as crow's feet (Ekman et al. 1990).

Secondly, the age of the selected job seekers was relatively young (24 years old). This choice was made because of the impression that young people have on recruiters. According to

Bendick, Jackson, and Romero (1997), younger job applicants receive more positive responses to their job applications than older job seekers. Furthermore, these results are supported by Finkelstein, Higgins, and Clancy (2000), who found that age was more relevant in the hiring process when older applicants were considered compared to younger applicants. (Bram Lips, n.d.2017)

Third, job applicants wear dark sweaters. CareerBuilder (2011), a company that helps both job seekers and employers, conducted an online survey asking 2009 hiring managers and human resource professionals which colours were most appropriate for job interviews. The results showed that dark colours were the most preferred. These results are supported by Ruetzler, Taylor, Reynolds, and Baker (2011), who noted that employers prefer job applicants to wear dark conservative clothing during job interviews. Wear dark conservative clothing during interviews. (Bram Lips, n.d.)

## Control Variables

To control for potential confounding variables, several measures were implemented in this study. Regarding physical attractiveness, a pretest screening was conducted with 30 independent participants rating the physical attractiveness of candidates on a 1–7 scale. Only candidates with no significant differences in attractiveness scores were selected for the formal experiment. Additionally, video consistency was maintained by ensuring that all candidates wore dark-colored professional attire, with background and lighting conditions strictly controlled to prevent bias in attractiveness perception caused by variations in clothing or setting.

To minimize the influence of candidates' emotional expressions or personality traits on the results, facial expressions and vocal tones were standardized. Facial expression screening was performed using facial recognition software to verify consistency across the no-smile, slight-smile, and broad-smile conditions, ensuring the absence of emotional exaggeration or excessive nonverbal behavior. Moreover, script standardization was applied, requiring all candidates to follow a strictly pre-set script in terms of content, speech rate, and tone of voice to avoid perception biases arising from vocal differences.

Other confounding variables were also addressed. The order of video presentation was randomized to eliminate potential order effects. To prevent bias due to gender composition, the number of male and female participants was roughly balanced, with 155 males and 150 females. Finally, to reduce the impact of cultural differences on the results, all subjects were individuals who grew up in a Chinese cultural environment to ensure cultural homogeneity within the sample.

## Procedures

Each survey had the same set of questions/statements to measure perceived credibility and hiring decisions. In addition, Respondents participated in a series of demographic questions, such as "Please indicate your age." All items were measured on either a seven-point Likert scale or a Seven-point semantic discrimination scale ranging from negative (1) to positive (7).

Participants were randomly assigned to one of six experimental groups. First, all Participants were asked to imagine that they were recruiting employees for a company. Participants then watched six videos of the interview process (for both males and females) with varying levels of smiles (broad, slight, and no smile). Smile intensity varied with the level of zygomatic muscle movement (Ekman 1993), producing slight and broad smiles (see Appendix). Following the viewing of each video, participants were prompted to evaluate the intensity of the job applicant's smile on a seven-point scale. (1, no smile; 7 showing a broad smile; Wang et al. 2017) and then later to complete one of the fifteen items assessing the perceived credibility of the job applicant's smile. To measure perceived credibility, the present study utilized the seven-point Semantic Differences Scale provided by Ohanian (1990). The scale

comprises 15 items, divided into three sub-dimensions with 5 items each. (attractiveness, expertise, and credibility). An example item for the attractiveness vacancy is “The candidate is unattractive/attractive”, for the expertise vacancy “The candidate is unqualified/qualified”, and for credibility “The candidate is insincere/sincere. “. To measure the hiring recruitment decision, two components based on the (Heilman 1979) were used. One was “Based on current information, how likely are you to hire this candidate?” Ratings were made (1, very unlikely; 7, very likely), and finally, we measured demographic data.

## Results

### Reliability and Validity Analysis

#### Reliability

In this study, the Cronbach's alpha coefficient was employed to indicate the degree of reliability of the questionnaire. Generally, for the data results of a questionnaire to be valuable, the Cronbach's alpha coefficient must be guaranteed to be at least 0.7, and when it is higher than 0.8, it means that the questionnaire possesses a high degree of reliability. As illustrated in Table 1, the Cronbach's alpha coefficients of perceived trustworthiness and interviewer's hiring evaluation are 0.941 and 0.863, respectively, which are above 0.8, indicating that the questionnaires all have superior reliability indicators.

Table 1. Reliability Analysis

Variant	Cronbach's $\alpha$ Coefficient	Number of questions
Perceived credibility	0.941	5
Recruitment decisions	0.863	2

#### Validity

KMO and Bartlett sphericity tests were conducted to indicate whether the validity meets the standard. When the following two criteria are simultaneously satisfied: 1. KMO value, the result of KMO value indicator must be greater than 0.6; 2. Bartlett's sphericity test result must reach the significant level (i.e., the significance level is below 0.05), indicating that the data are appropriate for factor analysis and the structural validity is reasonable. As shown in Table 2, the overall questionnaire's KMO = 0.952 > 0.6, Bartlett sphericity test  $p < 0.001$ , suggesting that the data are appropriate for factor analysis and the questionnaire possesses strong structural validity.

Table 2. KMO And Bartlett Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.952
Bartlett's Test of Sphericity	Approx. Chi-Square 2100.309
	df 21
	Sig. 0.000

#### Manipulation Checks

Differences in perceived smile levels at different smile levels were examined by one-way ANOVA with Spss24.0, and the detailed results are presented in Table 3. As indicated by the table below, there was a significant difference in perceived smile level at different smile levels,  $F(2, 302) = 200.43$ ,  $p < 0.001$ , requiring further multiple post hoc comparisons. Specifically, the perceived

smile intensity score for a broad smile ( $5.23 \pm 1.48$ ) was significantly higher than that for a slight smile ( $3.94 \pm 0.79$ ) ( $p < 0.001$ ); the perceived smile level score for a slight smile was significantly higher than that for a no smile ( $2.10 \pm 0.98$ ) ( $p < 0.001$ ), indicating that the experimental manipulation was successful.

Table 3. Test for Differences in Perceived Smile Intensity Degrees at Different Intensities

		M $\pm$ SD	F/(p)	$\eta^2$	LSD
Smile Intensities	broad smile①	5.23 $\pm$ 1.48	200.43	0.57	①>② >③
	slight smile②	3.94 $\pm$ 0.79	(0.000)		
	no smile③	2.10 $\pm$ 0.98			

### Correlation analysis

The Pearson correlation test was conducted on the degree of smile, perceived trustworthiness, and interviewer recruitment decision evaluation score, and the outcomes of the correlation coefficient matrix are displayed in Table 4. From the table of correlation coefficients, it is evident that the degree of smile was significantly positively correlated with the perceived trustworthiness,  $r=0.72$ ,  $p<0.01$ ; and significantly positively correlated with the interviewer recruitment evaluation,  $r=0.64$ ,  $p<0.01$ . The perceived trustworthiness was significantly positively correlated with the interviewer's recruitment evaluation. Perceived trustworthiness was significantly positively correlated with interviewer recruitment evaluation,  $r = 0.86$ ,  $p < 0.01$ . All of the study variables were two-by-two significantly correlated with each other, thus allowing for subsequent mediation effect analysis.

Table 4. Correlation Coefficient Matrix

	M	SD	1	2	3
Smile Intensities	—	—	1		
perceived credibility	4.85	1.47	0.72**	1	
Recruitment decisions	4.78	1.66	0.64**	0.86**	1

Note: \*\* $p < 0.01$ .

### Analysis of the effect of different smile intensities on interviewers' evaluation of hiring recruitment decisions

A one-way ANOVA with Spss24.0 was used to test for differences in interviewers' hiring recruitment decision evaluations at different levels of smiling, and the specific results are shown in Table 5. As can be seen from the table below, there was a significant difference in interviewers' hiring recruitment decision evaluations at different levels of smiling,  $F(2, 300) = 136.77$ ,  $p < 0.001$ , which requires further multiple post hoc comparisons. Specifically, the hiring recruitment decision evaluation score for a bright smile ( $5.77 \pm 1.05$ ) was significantly higher than that for a slight smile ( $5.40 \pm 1.53$ ) ( $p = 0.031$ ); and the hiring evaluation score for a slight smile was significantly higher than that for no smile ( $3.18 \pm 0.99$ ) ( $p < 0.001$ ), validating hypothesis H1.

Table 5. Effect of Different Smile Intensities on Interviewers' Hiring Recruitment Decisions

		M±SD	F/(p)	η <sup>2</sup>	LSD
Smile Intensities	broad smile①	5.77±1.05	136.77	0.48	①>② >③
	slight smile②	5.40±1.53	(0.000)		
	no smile ③	3.18±0.99			

### Analysis of Intermediation Effects

Based on the stepwise regression analysis of mediating effects proposed by Wen Zhong Lin (2004), the following model was established: in the first step, model 1 was established with demographic variables, degree of smile as the independent variable, and interviewer hiring recruitment decision as the dependent variable, to test the main effect (coefficient c); in the second step, model 2 was established with demographic variables, degree of smile as the independent variable, and perceived trustworthiness as the dependent variable, to examine the impact of the independent variable on the mediating variables (coefficient a); the third step, with demographic variables, degree of smile, perceived trustworthiness as independent variables, and interviewer hiring recruitment decision as dependent variable, establish model 3, test the effect of mediator variables on the dependent variable (coefficient b), and at the same time under the role of mediator variables, the effect of the independent variables on the dependent variable (coefficient c'), the mediation effect of step-by-step regression analysis The results are shown in Table 6.

From the table below, it is evident that in the initial step, after accounting for the influence of demographic variables, the degree of smiling significantly and positively predicted the interviewer's recruitment decision,  $\beta = 0.66$ ,  $t = 15.56$ ,  $p < 0.001$ , which verified the main effect (coefficient c'); and in the second step, after controlling for the effect of demographic variables, the degree of smiling significantly and positively predicted perceived credibility,  $\beta = 0.74$ ,  $t = 19.47$ ,  $p < 0.001$ , validating coefficient a. In the third step, after controlling for the effects of demographic variables, perceived trustworthiness significantly and positively predicted the interviewer's recruiting decision,  $\beta = 0.79$ ,  $t = 17.11$ ,  $p < 0.001$ , validating coefficient b. This indicates that the mediating effect of perceived trustworthiness between the degree of smiling and the interviewer's recruiting decision is valid. Meanwhile, under the mediating condition of perceived credibility, the degree of smiling did not significantly predict the interviewer hiring recruitment decision,  $\beta = 0.08$ ,  $t = 1.68$ ,  $p = 0.094$ , did not validate the coefficient c', indicating a fully mediated effect.

**Table 6. Stepwise Regression Analysis of The Mediating Effect of Perceived Credibility**

variant	Recruitment Decisions		Perceived Credibility		Recruitment Decisions	
	β	t	β	t	β	t
Smile Intensity	0.66	15.56***	0.74	19.47***	0.08	1.68
Perceived Credibility					0.79	17.11***
Genders	0.00	0.12	-0.02	-0.45	0.02	0.55
Age	0.04	0.63	0.02	0.43	0.02	0.44

Education	-0.09	-2.01*	-0.12	-3.11**	0.01	0.26
Length Of Service	0.09	1.43	0.09	1.59	0.02	0.40
Interviewer Experience	0.27	6.33***	0.27	6.87***	0.06	1.81
Industry	-0.02	-0.55	-0.02	-0.41	-0.01	-0.29
R2	0.49		0.59		0.74	
F	40.18***		60.37***		106.14***	
MAX VIF	2.44		2.44		2.44	

Note: \*\*\*p < 0.001, \*\*p < 0.01, \*p < 0.05.

With smile intensity as the independent variable, perceived credibility as the mediating variable, interviewer recruitment decision as the dependent variable, and demographic variables as the control variables, the mediating effect was analyzed by Bootstrap method using model 4 of Process4.1, and the 95% confidence interval was used to judge whether the effect was valid or not, which was set to be a 5000 sampling sample, and Bootstrap mediation was applied. The results are shown in Table 7. From the table below, it can be seen that the total effect value of smile intensity on the interviewer's hiring recruitment decision is 0.66, and the 95% confidence interval is [0.58, 0.74], excluding 0, which indicates that the total effect is established; the indirect effect value of smile intensity→perceived credibility→interviewer's recruitment decision is 0.58, and the 95% confidence interval is [0.52, 0.65], excluding 0, which indicates that the total effect is established. The mediating effect of perceived trustworthiness between smile intensity and interviewer recruitment decision is established. The value of the direct effect of smile intensity on the interviewer's hiring decision is 0.08, with a 95% confidence interval of [-0.01, 0.17], including 0, indicating that the direct effect does not hold, and suggesting that perceived trustworthiness plays a fully mediated effect between smile intensity and the interviewer's recruitment decision. Hypothesis H2 was verified.

**Table 7. Mediation Effects Analysis of Bootstrap Method**

Effect	Effect Size	Boot SE	95%CI	
			LLCI	ULCI
1. Total Effect	0.66	0.04	0.58	0.74
2. Direct Effect	0.08	0.05	-0.01	0.17
3. Indirect effects	0.58	0.03	0.52	0.65

### Moderation effect analysis

A two-way ANOVA with interaction effects was used to illustrate whether the moderating effect held, and the results are shown in Tables 9 and 10. As can be seen in Table 10, there was a significant main effect of gender,  $F(1, 298) = 55.23$ ,  $p < 0.001$ ,  $\eta^2 = 0.16$ , and of degree of smiling,  $F(2, 298) = 723.62$ ,  $p < 0.001$ ,  $\eta^2 = 0.83$ , and a significant  $2 \times 3$  interaction effect of gender and  $2 \times 3$  interaction effect of degree of smile was significant,  $F(2, 298) = 367.99$ ,  $p < 0.001$ ,  $\eta^2 = 0.71$ , indicating that the moderating effect of gender between degree of smile and perceived trustworthiness was significant, which verified Hypothesis H3, and further simple effects analysis was needed, and the results are shown in Fig. 1. As can be seen in Fig. 2, for female job applicants, the scores of



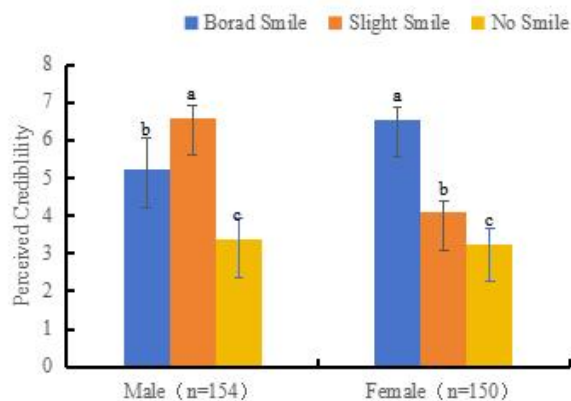
perceived trustworthiness for different degree of smile differed significantly,  $F(2, 298) = 575.78$ ,  $p < 0.001$ ,  $\eta^2 = 0.79$ , specifically, the perceived credibility score of a bright smile ( $6.56 \pm 0.33$ ) was significantly higher than that of a medium-smile ( $4.09 \pm 0.31$ ) ( $p < 0.001$ ), and that of a slight smile was significantly higher than that of no smile ( $3.25 \pm 0.44$ ) perceived trustworthiness scores ( $p < 0.001$ ), which verified hypothesis H3a; for male job seekers, the difference in perceived trustworthiness scores between different levels of smiles was significant,  $F(2, 298) = 507.50$ ,  $p < 0.001$ , and  $\eta^2 = 0.77$ , and, specifically, perceived trustworthiness scores were significantly higher for a slight smile ( $6.60 \pm 0.32$ ) than for a bright smile ( $5.22 \pm 0.86$ ) perceived trustworthiness score ( $p < 0.001$ ), and the perceived trustworthiness score of a bright smile was significantly higher than the perceived trustworthiness score of no smile ( $3.38 \pm 0.54$ ) ( $p < 0.001$ ), validating hypothesis H3b.

**Table 8. Descriptive information on perceived credibility at different smile intensities by gender**

	Man (n=154)	Females (n=150)
1. Broad smile	5.22±0.86	6.56±0.33
2. Slight smile	6.60±0.32	4.09±0.31
3. No smile	3.38±0.54	3.25±0.44

**Table 9. Table Analyzing The Moderating Effect Of Gender**

variant	Genders			Smile Intensities			Genders * Smile Intensities		
	F	p	$\eta^2$	F	p	$\eta^2$	F	p	$\eta^2$
Perceived credibility	55.23	0.000	0.16	723.62	0.000	0.83	367.99	0.000	0.71



**Figure 2. Perceived Credibility Scores at Different Smile Intensities by Gender**

## General Discussion

### Discussion

We investigated the effect of job applicants' smile intensity on interviewers' recruitment decisions. Consistent with our predictions, a bright smile (relative to a slight smile and no smile) would improve hiring decision evaluations. On the other hand, perceived credibility mediated the relationship between smile intensity and interviewers' hiring decisions. Finally, for female job applicants, a bright smile (relative to a slight smile and no smile) would make interviewers feel more trustworthy during the interview. The results

supported Hypothesis 3a, and a slight smile (relative to a bright smile and no smile) would make male job applicants feel more trustworthy. These results are consistent with our hypothesis that a bright smile would be evaluated more positively than a slight smile, but the interpretation of a smile in terms of role expectations has different results.

### Theoretical implications and practical implications

Our theoretical contributions are threefold: First, this study will enrich the existing literature on the role of nonverbal behavior in interviewing by exploring the effects of male and female smile intensity on perceived credibility and recruitment decisions. Most of the current research on smiling and credibility focuses on Western countries, and this study fills the research gap in the Chinese context. Our main theoretical contribution is to explore the impact of displayed emotions (i.e., smiles) on job applicants' perceived reliability and hiring decisions. Previous research has mostly focused on the impact of emotional labor on service providers in the hospitality industry (e.g., Chu et al. 2012), but has been less studied in the context of recruitment and organizational studies. To fill this gap, this study examines the impact of job applicants' expressed smile intensity on interviewers' perceived reliability and recruitment decisions. In addition, we demonstrate the joint effects of job applicants' gender and smile intensity and show that people evaluate bright and weak smiles differently based on gender. At the same time, most of the smile-related literature is from the West, so we also expand the gap in the Chinese literature.

Second, this study will help to explore the distinctions between Chinese and Western cultures regarding interview behavior. By exploring Chinese people's different interpretations of and responses to smiles, the study will provide theoretical support for cross-cultural management and cross-cultural communication and help identify the influence of cultural factors in workplace behavior to decouple smile intensity from authenticity in most Western studies. As mentioned above, previous research in marketing has equated broad smiles with genuine smiles (e.g., Bujisic et al. 2014). The current findings suggest that the link between smile intensity and reliability can be extended to human organizational management. Moreover, smile intensity not only affects the perception of smile reliability but also affects the evaluation of hiring decisions (Ruben et al. 2015). Our study suggests that the impact of a bright smile may depend on the gender of the job applicant. Female job applicants should be encouraged to show high-intensity emotional expressions, such as a bright smile. On the other hand, male job applicants may be more effective in gaining positive evaluations through a slight smile. China culture places more emphasis on smiling as a symbol of politeness and modesty, and women are expected to smile more. In Western culture, smiling is more seen as a sign of confidence and openness, and both male and female job seekers need to show their friendliness and sociability through a moderate smile.

Third, by examining the comparative intensity of men's and women's smiles in interviews, this study will reveal the subtle differences in gender roles in workplace performance and provide a theoretical framework for gender and workplace behavior. This will help deepen the understanding of gender equality and gender bias and lay the foundation for future related research. The previous study Wang et al. (2017) showed that laughing leads to higher warmth but lower perceptions of competence. According to the stereotype content model (Cuddy et al. 2008), women's gender roles emphasize warmth rather than competence traits, which are more associated with men (Abele 2003). It is not surprising, therefore, that smiles from female job applicants (but not male applicants) represent warmth and are perceived as more trustworthy. Similarly, smiles reduce perceptions of competence and are therefore inconsistent with masculine stereotypes. So a slight smile is more consistent with the confident, polite image of Chinese men.

The practical implications of this study can be applied to cross-cultural management training to help multinational companies understand and deal with workplace behavior differences in different cultural backgrounds. This has important practical significance for improving corporate management and enhancing the collaboration efficiency of cross-cultural teams in the context of globalization. Companies can design more effective interview training courses based on the research results to train recruiters on how to better interpret non-verbal behaviour in interviews. Simultaneously, it can also offer targeted guidance and support for employees' career development and interview preparation.

Like other research, this study also has its limitations. First, our study involved a sample of Chinese participants. Previous studies have shown that the norms of smiling may differ between cultures (Hennig-Thurau et al. 2006). For example, in Western culture, Westerners say that they smile more often when they feel happy because they tend to be encouraged to express their feelings openly (Matsumoto et al. 2008 and Tsai et al. 2002). Therefore, future research on other cultural contexts is necessary. Second, our situational hypothesis was based on a single interview situation. However, in many interview situations, there are repeated interactions between interviewers and job applicants, and smiles in different industries may have different effects and interpretations. The establishment of such a relationship may mitigate the gender effect found in this study. Additionally, future research should consider situations where gender stereotypes may not be so prominent. For example, in addition to the interview situation in the service industry, the intensity of smiles is also the case in some industries that do not require smiling, and advertisements for luxury goods or high-end services often involve "soft smiles" because such smiles are a symbol of status. Finally, our study was conducted through a situation-based experiment. To overcome this limitation, future research should examine the effects of smile intensity in a field setting and measure actual evaluative criteria for recruitment decisions.

## Conclusion

Much of the Western literature on smiling supports the idea that individuals conclude others based on their emotional expressions. It is widely agreed that positive emotional expressions, such as smiling, lead to favourable interpersonal judgments (Deutsch et al. 1987 and Mueser et al., 1984; Thornton 1943). The current study shows that smiling in China also leads to positive interpersonal judgments, and the intensity of the smile affects the perception of job seekers of different genders in an interview environment. In Chinese culture, smiling is often seen as a manifestation of politeness and modesty. Previous studies have shown that bright smiles are associated with higher levels of sociability and friendliness, two typical characteristics that are usually associated with women (Scarr 1992, Miles 2009 and Wang et al. 2017). Relatively speaking, male job applicants' smiles focus more on their professionalism and seriousness. Appropriate smiles can demonstrate politeness and confidence. In the Chinese context, men's appropriate smiles are generally associated with positive evaluations, which aligns with my expectations. In conclusion, the findings of this study suggest that, in terms of smiling, a bigger smile tends to yield better outcomes.

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## Author Contributions

Not applicable.

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