TYPE THIS DOWN: APPLICANT PERSPECTIVES ON COMPUTERIZED NOTE-TAKING
PRACTICES DURING A SELECTION INTERVIEW

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ABSTRACT

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PRACTICES DURING A SELECTION INTERVIEW

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The present study was designed to provide further insight into how applicants perceive more progressive uses of technology in the selection process. The primary research question in the present work was whether computerized note-taking by employment interviewers would adversely affect applicant perceptions of both the interviewer and the interview process. Furthermore, the author was interested in seeing whether providing an explanation to the applicant regarding the computerized notes would alleviate any negative perceptions. Participants for this study were undergraduate students interviewing for a prestigious on-campus volunteer leadership program. Results indicated that the applicants did not negatively perceive computerized notes any more than pencil and paper notes. As a result, the explanation condition also elicited no effect. Exploratory analyses, however, identified applicant comfort with computers as a predictor of their perception of note quality, and this relationship was mediated by the perceived behaviors of the interviewer. These findings may be important for organizations who are interested in using technology-mediated procedures. Furthermore, the present study provided a promising lead-in for other studies to further examine applicant reactions to technology-facilitated selection processes in real-world scenarios.

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Introduction

There are few job openings that are filled without the use of an employment interview. . Initially, there was a great deal of confusion regarding the effectiveness of conducting interviews to make personnel decisions. For example, low validity coefficients, less than .19 in most cases, were found in several early studies of the employment interview (Wagner, 1949; Schmitt, 1976; Arvey & Campion, 1982). These findings led many to question the utility of the interview and challenge its pervasive presence in the selection process if it could not be shown to do that which it was intended: to predict future job performance. Several meta-analyses helped to identify interview structure as a primary source of the conflicting results in the literature (Marchese & Muchinsky, 1993; Huffcutt & Arthur, 1994; McDaniel, Whetzel, Schmidt, & Maurer, 1994). Specifically, structured interviews elicited much higher validity coefficients than their unstructured counterparts. One possible explanation for this is that in unstructured interviews, the format is more free-flowing and the interviewer tends to do most of the talking, restricting not only the amount of information the interviewee is able to provide but also its relevance to the position being filled (Mayfield, 1964). However, unstructured interviews have been shown to elicit more accurate ratings of the candidate's personality, likely a result of the more conversational nature of the interview structure (Blackman, 2002). Organizations have reported that semi-structured interviews (i.e. interviews with pre-determined questions, but with more opportunity for follow-ups and free-flowing communication between the applicant and the interviewer) are more likely to be used in the selection process, primarily so that interview questions can be tailored to the candidate, even though structured interviews have been shown to be more reliable and valid (Judge, Higgins, & Cable, 2000). Thus, after much debate,

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researchers and practitioners in human resource management generally agree that the employment interview is a valid measure for assessing applicants.

Beyond the validity of the interview, there remains the issue of applicant reactions to the interview in the selection context (e.g., Smither, Reilly, Millsap, Pearlman, & Stoffey, 1993). By focusing on the applicants' perceived fairness of selection tools, researchers hope to target and alleviate some of the primary deterrents that could lead to the attrition of top candidates (e.g. poor corporate image, negative first impressions of interviewers/recruiters, non job-related selection processes, etc.). Although several studies have been conducted to examine the effect of technology-mediated selection tools on applicant reactions, the current study examines a rarely addressed feature of the interview: technology-facilitated note-taking as it affects the applicants' perceptions of interview fairness, interviewer communication, interviewer traits, and intentions to accept a potential offer, to name a few.

Despite several advantages offered by technology-based selection methods (e.g. cost savings, larger applicant pools, etc.), the face-to-face interview is still the most ubiquitous (Silvester & Anderson, 2003). For some jobs, however, technological advances (e.g. telephone, videoconference, interactive voice recording, etc.) have affected the way in which the selection interview is conducted. Furthermore, the popularity of alternative means of face-to-face interviewing, such as Skype and other online-based video chat services, are drastically on the rise, especially in Europe (Holt, 2010; Hanna, 2012). Not surprisingly, as the corporate world becomes more tech-reliant, research has begun to address the advantages and disadvantages of using more advanced technology (e.g. telephone use, computerized testing, web-based interviewing/recruiting, etc.) to facilitate the selection process (Silvester & Anderson, 2003; Holt, 2010; Hanna, 2012). Schmidt and Rader (1999) found telephone interviews to be equally

valid as face-to-face interviews not only in predicting future job performance, but also absenteeism, job tenure, and sales performance. They also found that the selection interview, regardless of structure and medium, displayed strong evidence of criterion validity as well as validity generalization. These results indicate that the selection interview should perform just as well through a technological medium as it would face-to-face.

Beyond the medium of interaction, technology may be employed in a variety of ways when conducting an interview. In particular, information technology may simply serve to facilitate a face-to-face interview, such as taking notes. The effect of using technology during a face-to-face interview, however, has not been adequately examined in research.

In circumstances where an interviewer directly interacts with an interviewee, especially in applied settings, the interviewer is strongly encouraged to take notes during the process. Note-taking provides for protection in the event of legal backlash (Perry, 1993), improves retention of material (Carlson, Thayer, Mayfield, & Peterson, 1974; Middendorf & Macan, 2002), and mitigates interviewer bias (Pendry & Macrae, 1994; Dipboye, 1994; Biesanz, Neuberg, Judice, & Smith, 1999). The majority of interview note-taking research involves the validity of the information recalled by the interviewer (Carlson, Thayer, Mayfield & Peterson, 1974; Macan & Dipboye, 1994; Burnett, Fan, Motowidlo & DeGroot, 1998; Middendorf & Macan, 2002), and by students recalling class material (DiVesta & Gray, 1972; Hartley & Davies, 1978; Kiewra et al., 1991). In addition, just one look into a current university classroom will illustrate the prevalence of computer-based note-taking, further promoting the need for empirical studies to examine how technology-facilitated notes affect the note taker, not only on recall, but also the quality of the notes taken.

All things considered, if note-taking via computer is such a widely used and accepted practice in academic settings, why should we expect anything less in the applied world? If the present generation of job-seekers is so used to computerized note-taking in the classroom, would they not be just as comfortable taking computerized notes during an interview? As portable technology becomes ever more common in our daily lives, individual preferences for using such tools should also be on the rise. By extension, it is also more likely that the use of these technologies should be more prevalent in the professional setting (i.e. using laptops, tablets, etc.), such as in interviewing. However, the implications of technology facilitated interviews have yet to be examined.

One concern with technology-facilitated interviews is that it may indirectly encourage adverse impact based on interviewee comfort with technology. Recent studies of internet availability and use in the United States have shown that age, race, socioeconomic status, education level and geography are the strongest determinants as to whether individuals are familiar with web-based technology, or even have the opportunity – with the less educated, impoverished, and non-whites as the most affected (Chaudhuri, Flamm, & Horrigan, 2005; Flamm & Chaudhuri, 2007; LaRose, Gregg, Strover, Straubhaar, & Carpenter, 2007). Furthermore, as of 2006, only 24% of rural adults reported having high-speed internet access, as opposed to 39% of their (sub)urban counterparts, which pales in comparison to the barely sub-100% reported telephone access around the same time Horrigan & Murray, 2006). Such differences should raise red flags for organizations, which should use caution when implementing large-scale technological advancements, so as not to disparately impact those who may be less privileged.

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A second concern with technology-facilitated interviews is that they may negatively affect the quality of the interaction between interviewer and interviewee. One way technology-facilitated interview note-taking could encumber an interviewer's necessary rapport-building behaviors is that hand-writing notes should almost come naturally, whereas with a computer there are more 'moving parts,' so to speak. The interviewer needs to attend to the screen, the keys being pressed, moving the cursor, and a host of other computer-related operation and display issues. Furthermore, if the interviewer is expending more cognitive resources in dealing with the technological aspects of the selection process, then the applicant may feel that the interviewer is cold, distant, or disinterested. In addition, a computer can cause a physical barrier between the interviewer and applicant which may reduce eye contact and other non-verbal social cues. All of these issues bring with them the threat of spurning negative reactions from the interviewee, which could be costly to the organization, as will be discussed shortly.

The present study intends to investigate the effect of computerized note-taking by interviewers on applicant ratings of interview fairness, organizational intentions, interpersonal social behaviors of the interviewer, and perceptions of the notes taken by the interviewers. Furthermore, this research will test the hypothesized moderating effect of applicant comfort with computers in a mediated model in which interpersonal social behaviors is expected to influence the fairness and organizational intentions variables. Finally, the study will examine the effect of explaining the use of technology for note-taking within the computerized group, based on the promising literature on explanations as an inexpensive method of improving applicant reactions.

Literature Review

Applicant Reactions

Since the early 1990s, researchers and organizations alike have become increasingly more interested in how applicants perceive the validity (Schmit & Ryan, 1992) and fairness (Gilliland, 1995) of employment selection processes. This swing in the literature should be expected given the constant threat of legal action brought on by applicants who are dissatisfied or skeptical of selection processes (Hulsheger & Anderson, 2009), as well as the current 11 million unemployed job-seekers and others who are currently seeking or planning a career switch (Bureau of Labor Statistics, 2013). Prior to this paradigm shift, emphasis was primarily placed only on organizations' side of candidate interactions and the criterion-related validity of selection tools. Recent trends, however, have shown that the candidates' perceptions of a selection process can also be costly to the organization (Anderson, Born, & Cunningham-Snell, 2001). More specifically, high potential applicants may perceive the selection process as unfair or lacking validity and withdraw their applications as a result. Furthermore, if an applicant has a negative experience during the selection process, she might express her dissatisfaction with the organization to friends, family, and work colleagues, which can lead to negative perceptions of the organization with other potential applicants or customers. Furthermore, current employees who had unfavorable experiences in the selection process may hold negative perceptions of events within the organization, experience decreased commitment and performance, and have higher intentions to turnover (Smither et al, 1993; Hulsheger & Anderson, 2009).

One of the most prominent areas of study in the realm of applicant reactions is Gilliland's (1993; 1995) work with organizational justice theory. Although Gilliland did not create the theory of organizational justice, his work was the first to specifically address the lack of theory

in the empirical study of applicants' perceptual processes while engaging in employee selection methods. Probably the two most common forms of organizational justice in the applicant reactions literature are procedural and distributive justice (Greenberg, 1993). Procedural justice pertains to how fair an applicant believes an organization's employment methods to be in making personnel decisions. For example, if a selection process seems to be fair and job-related, the applicant is more likely to rate the process as being fair. Distributive justice, on the other hand, refers to how fair an applicant believes an organization's decisions based on the results of the selection process to be. For example, if the candidate feels that the organization's decision to extend or not extend an offer is fair, (s)he is more likely to trust the organization's decision-making ability (Bauer et al, 2001). Prior research on organizational justice and applicant reactions has been mostly based on the content of the selection tools (i.e. the perceived job-relatedness of interview questions); the administration of the selection methods (i.e. the applicant is guaranteed confidentiality, or given the appropriate amount of background information regarding the process); and the source and quality of feedback received (Schuler, 1993; Arvey & Sackett, 1993).

In comparing selection methods, a meta-analysis conducted by Hausknecht, Day, and Thomas (2004) looked at favorability ratings for ten different selection tools by applicants across 86 studies ($N = 48,750$). The authors found that the selection interview was the most highly rated tool, followed by work samples, résumés, references, cognitive ability tests, personality tests, and biodata. Personal contacts, honesty tests, and graphology were the poorest rated tools. Although the employment interview is the most highly rated selection tool, there are mixed results regarding favorability to its structure. In one study, applicants perceived highly structured interviews to be most fair and reported a higher probability of accepting a job offer

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compared to unstructured interviews (Taylor & Bergmann, 1987). Conversely, other studies have found that applicants perceived unstructured interviews to be more favorable than their highly structured counterparts (Latham & Finnegan, 1993; Kohn & Dipboye, 1998). Finally, Hysong and Dipboye (1999) found that applicants are more favorable to semi-structured interviews over other forms of interview structure. This is likely due to semi-structured interviews containing the job-relatedness of the highly structured format, but retaining the more conversational tone of their open and unstructured counterpart.

Effects of Technology on the Interview

Beyond the structure of the interview, technology may also play a role in how applicants react to the interview. Given the importance of the interaction between the interviewer and the interviewee, the use of technology-mediated and technology-facilitated interviews provokes some concern that these formats will harm the quality of interpersonal interaction during the interview. Interviews may be facilitated with technology, such as the use of portable computers for note-taking during face-to-face meetings, or they may be completely-mediated by technology, such as the use of phone- or web-based interviews. The potential effects from these formats are reviewed next.

Technology-mediated Interviews

The harsh economic conditions of the past decade, coupled with ever-expanding technological advances, have forced many organizations to search for and implement more cost-effective and less time consuming personnel selection and assessment tools. As a result, organizations have been embracing electronic methods (e.g. phone interviews, computer automated interviews, video chat, etc.) of screening and selecting top applicants (Blackman, 2002; Silvester & Anderson, 2003; Garb, 2007). Technological advances in the selection process

also provide organizations with a more broad and diverse applicant pool, while also reducing the costs of large-scale recruiting (Chapman & Rowe, 2002; Kroeck & Magnussen, 1997).

A common concern with the use of different interview mediums is that they may introduce additional biases in the evaluation of applicants. Recent studies, for example have found that applicants who were interviewed via telephone were rated much more negatively than those who were interviewed face-to-face (Blackman, 2002). In addition, telephone interviewers were much less likely to accurately assess the interviewees' personality traits (Silvester, Anderson, Haddleton, Cunningham-Snell, & Gibb, 2000). One possible justification for this phenomenon is the lack of direct and physical context in the interaction from which the interviewer can draw. For example, social psychologists have found that individuals frequently change their behavior and interactional style when they cannot see, nor are in the physical presence of those with whom they are communicating (Stephenson, Ayling, & Rutter, 1970; Mehrabian, 1981; Rutter, 1987). This also affects the perceptions each party has about one another. Conversely, Straus, Miles, and Levesque (2001) found that applicants who were interviewed by telephone were evaluated more favorably by interviewers. However, the telephone interviewees who received higher ratings were also categorized as less physically attractive, implying that non-visual interviews may attenuate interviewer bias regarding the physical appearance of the applicant. Furthermore, Straus et al. found that distance interviews via videoconference elicited no differences in the rating of applicants by interviewers. However, interviewers in the videoconference condition were rated as less likable than their face-to-face and telephone counterparts. The authors offer the explanation that synchrony, or the extent to which both parties communicate in a coherent and uninterrupted manner, is lower in videoconference interviews and that negatively affects how the applicant perceives the

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interaction by being forced into a scenario in which the interviewee is unable to properly monitor and respond to the interviewer's reactions, both verbal and nonverbal.

With regards to applicant reactions, Chapman and Rowe (2002) found that within unstructured interview formats, organizations that utilized videoconference interviews were rated as far less favorable than face-to-face interviews, but more favorable when highly structured videoconference interviews were conducted. Less personal methods such as interactive voice responding (IVR), which is a pre-recorded telephone screening tool, have been shown to elicit unfavorable applicant reactions in terms of two-way communication and interpersonal treatment. Additionally, applicants in the IVR condition displayed stronger litigious intent (Bauer, Truxillo, Paronto, Weekley, & Campion, 2004). However, more research on how applicants react to technology-mediated interviews is needed before any firm conclusions can be inferred.

Interviewer Social Behaviors

Aside from the structure and medium of the interview, applicant perceptions can also be influenced by their interactions with the individuals conducting the interviews. Interviewers are typically recognized as gatekeepers of organizational information. This is an important role, as many job applicants enter the selection process with unreasonably high expectations about the organization and the position being filled. Interviewers often provide insight to the applicant in the form of realistic job information (e.g. roles, responsibilities, etc.), which allows the candidate the opportunity to either self-select out, or experience more success throughout the recruiting process (Popovich & Wanous, 1982; Swaroff, Barclay, & Bass, 1985). Furthermore, candidates who display a great deal of success in an interview may satisfy a self-fulfilling prophecy in that they are provided preferable treatment and superior opportunities above their more "average" counterparts (Dipboye, 1982).

Interviewers tend to place a great deal of confidence in their ability to make assessments regarding the quality of interviewees, more commonly referred to as the "illusion of validity" (Kahneman & Tversky, 1973; Einhorn & Hogarth, 1978). This is not a surprising phenomenon, as many interviewers are human resources professionals, upper management, or supervisors who are typically well-educated and espouse the belief that no one is better suited to identify and select the best employees for a position. Such overconfidence may be problematic because, although the interviewers are consistent in the kinds of applicants they tend to select, they often have no post-hire interaction with the applicant or receive no feedback as to whether the personnel they choose are successful within their respective roles.

Oftentimes, before an interview is conducted, the interviewer has already formed initial impressions and expectations of the applicant based on a wealth of available information (e.g. resume, cover letter). The same goes for the applicant in regards to the organization (e.g. company website, recruiter, job posting, etc.). For the interviewer, having predetermined expectations can affect behavior toward the applicant (Parsons, Liden, & Bauer, 2001). If the interviewer has a more favorable perception of the applicant, she will be more likely to exhibit positive affect (i.e. smiling, conversational tone). In a structured interview format, such behavior by the interviewer could compromise the integrity of the interview by introducing nuisance variance in the applicant experience.

Although interviews generally have predictive validity in selection, they remain susceptible to a great deal of bias on behalf of the interviewer, which may result in more or less favorable ratings based on non job-related characteristics that factor into the decision making process. Such characteristics include the applicant's physical appearance (Pingatore, Dugoni, Tindale, & Spring, 1994), non-verbal behaviors, such as smiling and eye contact (Dipboye,

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1992), job experience and academic achievement (Hakel, Dobmeyer, & Dunnette, 1970), and the applicant's perceived similarity to the interviewer (Rand & Wexley, 1975). Research has also shown that interviewers have a tendency to make up their minds about applicants very early in the interview and spend the rest of the time either drifting off (Farr, 1973) or taking over the conversation in an attempt to sell the organization (Anderson, 1960).

Early research on applicant reactions to interview behaviors was primarily concerned with the function of interviewers in the organizational recruiting process. It has been noted that interviewers are generally perceived as being the least reliable and untrustworthy sources of information when it comes to the position for which they are conducting the interview (Fisher, Ilgen, & Hoyer, 1979). Other research found that interviewer behaviors tend to be perceived as being indicative of interviewee performance (Rynes, Heneman III, & Schwab, 1980). For example, interviewers who exhibit more positive social behavior in the latter part of the interview would likely be perceived by the applicant that the interview was a success and that a job offer was likely to follow. However, little to no research has been conducted recently focusing on applicant reactions to interviewer note-taking behaviors. Ergo, it is of particular interest to the current study to examine this potential source of additional bias introduced by interviews: the method of note-taking, which is reviewed next.

Interviewer Note-taking Behaviors

Interview researchers consistently identify note-taking as an important, and highly recommended, practice throughout the interviewing process (Graves & Karren, 1996). Most interviewers develop their own note-taking strategies (Campion, Palmer, & Campion, 1997). More often than not, these notes come in one of two varieties; sometimes a combination of both. One style is to document question responses or factual information provided by the interviewee.

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The second involves making subjective judgments (e.g. behavior, personality, organizational fit, etc.) about the interviewee. Highly structured interviews typically necessitate taking very detailed, response-based notes, whereas less structured interviews allow the interviewer to incorporate more personal evaluations. Although the prior research focused on interviewer note-taking and outcome is sparse, there exist two major camps in the note-taking literature concerned with selection interviews: that note-taking can improve interviewer recall (Carlson, Thayer, Mayfield, & Peterson, 1974; Middendorf & Macan, 2002); and that note-taking can alleviate interviewer bias (Pendry & Macrae, 1994; Dipboye, 1994; Biesanz, Neuberg, Judice, & Smith, 1999).

In the educational literature, note-taking has been shown to facilitate two important cognitive processes: encoding the material in memory, and documenting the information for easier retrieval later (Kiewra, 1989). Furthermore, research suggests that taking notes also improves the recall of material resulting from heightened levels of attention, organizing information in such a way that is most beneficial to the note taker, and processing the information at a deeper level (Einstein, Morris, & Smith, 1985). In his review of the selection interview, Dipboye (1992) argues that the cognitive processes found in educational research are also present in interviewing.

What little research that has been done exploring the link between interviewer note-taking and the later recall of information has predominantly followed the same format: participants were presented recorded interviews, assigned to a note-taking condition, and later given a recall test based on the interviews they observed. The findings suggested that note-taking improved accuracy of recalled information about the applicants (Carlson et al., 1974; Macan & Dipboye, 1994).

Beyond interviewer memory and recall, note-taking may also improve the selection interview by mitigating interviewer bias. One way in which note taking is believed to attenuate interviewer bias is that by attending to the accuracy of the information being recorded, the interviewer ends up with a reduced amount of cognitive resources from which to draw subjective judgments (i.e. reinforcing pre-interview expectations) about the applicant. However, the literature suggests that when interviewers are responsible for the information that is documented and retained from the interviews, cognitive resources are too exhausted to prevent expectancy biases from plaguing the interviewer's perceptions of the interviewee (Pendry & Macrae, 1994; Neuberg, 1989). Similarly, Macan and Dipboye (1994), found that although taking notes improved recall, it did nothing to attenuate interviewer bias. Rather, interviewers displayed a susceptibility to confirmation bias, and honed in on information that reinforced their predispositions regarding the candidates. In other words, applicants paired with good application materials were expected to provide better responses than those paired with lesser application materials. Furthermore, the applicants with the best application materials were also rated as providing the most job-relevant responses. This phenomenon suggests that a certain degree of halo error is present in interviewer ratings of applicants (see Thorndike, 1920).

Because interviewers are often an applicant's first point of contact in the hiring process, it makes sense that organizations should be concerned with how the interviewer's note-taking style affects their interactions with the applicant throughout the interview process. Therefore, when discussing interviewer effects on ratings of interviews by applicants, positive interviewer behavior is often an important consideration. Interviewers who display signs of positive affect in their interpersonal behaviors are often rated more favorably, as are the organizations for which they work. Rynes and Miller (1983), in a study of recruiter behavior, found that those who

displayed frequent eye contact, displayed affirmation to responses by applicants, smiled often, and showed nonverbal expressions of approval (i.e. head nodding), and laughed at applicant jokes were rated more favorably. Furthermore, the organizations for which these recruiters worked were perceived to treat their employees better, and that the recruiters were representative of the organizations' culture.

In social psychology and communications literature, studies have been conducted to assess the degree to which technology, affects social interaction in a negative manner (Banjo, Hu, & Sundar, 2008; Bugeja, 2005; Cooper, 2002). Erving Goffman (1971), one of the more renowned researchers of interpersonal behavior in public spaces, proposes that individuals have prior expectations as to how social interactions should be conducted and the nonverbal cues associated with them. When these expectations are not met, negative feelings result. One study found that mobile phone cross talk, or when one person is engaged in a face-to-face interaction with another who is on the phone, led to much stronger feelings of dissatisfaction and agitation on the part of the non-phone user. Furthermore, the individual on the phone was able to use nonverbal hand gestures, such as holding one finger up as to say, "hold on" or to mime writing if a pen was needed, but facial cues (e.g. smiling, eye contact, etc.) were almost nonexistent (Humphreys, 2005). Other studies have shown that individuals tend to adhere to the concept of personal privacy when it comes to using mobile technology (Beaulieu, 2004; Little, Briggs, & Coventry, 2005). These studies suggest that there exists a common understanding that while people are using mobile technology (e.g. cell phones, laptops, tablets, etc.) they are acting within a private space and therefore should not be disturbed. Furthermore, Bugeja (2005) proposed that individuals who are absorbed in their use of mobile technology are less involved in their physical environment than their virtual, resulting in a sense of being in multiple places at any given time –

straining their interpersonal interactions with others. Similarly, Banjo et al. (2008) found that individuals who used their cell phones more frequently displayed fewer social cues (e.g. smiling). These concepts are extrapolated to the current study in that interviewers who are taking notes via laptop will elicit less favorable interpersonal effectiveness ratings.

Hypothesis 1*: Applicants will provide higher mean ratings for the interpersonal effectiveness of the interviewer in the presence of traditional note-taking than to computerized note-taking.

Hypothesis 2*: Applicants will provide higher mean ratings for a) ratings of the fairness of the interview; b) their intentions to accept the position if offered; and c) their intentions to reapply if not offered the position in the presence of traditional note-taking than to computerized note-taking.

Hypothesis 3: Applicant ratings of the interpersonal effectiveness of the interviewer will mediate the positive relationship between note-taking style and a) ratings of the fairness of the interview; b) their intentions to accept the position if offered; and c) their intentions to reapply if not offered the position.

An important aspect of the present study is to understand the effect that individuals' comfort with computers in everyday use has on their perceptions of how proximal others are using computers, but more specifically in a selection context. In addition, it is equally important to ascertain whether the decision makers in the selection process (i.e. the interviewers taking notes via laptop in this scenario) show any signs that their interpersonal effectiveness is affected by the use of a computer during the interviewing process. Field research has shown that an applicant's experience with computers is a viable moderating variable in models of applicant reactions to selection procedures (Bauer et al, 2006). As such, it is expected that those who are

less comfortable using computers will feel dissociated from the interviewers using laptops, resulting in lower ratings of interpersonal effectiveness. Conversely, those who are more comfortable with computers will be more likely to develop and maintain rapport with the interviewers who are taking notes via laptop.

> **Hypothesis 4**: Applicant comfort with computers will moderate the relationship between note-taking style and the interviewers' perceived interpersonal effectiveness such that interviewers who take notes using a computer will be perceived as more interpersonally effective by applicants who are more comfortable with computers.

Explanations

Researchers have also begun to look at the effect of explanations, or justifications, regarding the use of certain selection procedures on applicant reactions (Shaw, Wild, & Colquitt, 2003; Truxillo, Bauer, Campion, & Paronto, 2002; Truxillo, Bodner, Bertolino, Bauer, & Yonce, 2009). In a meta-analytic review of the explanation literature, Truxillo et al. (2009) found that providing explanations to applicants in appropriate scenarios significantly increased fairness ratings. These findings offer organizations a simple and cost-effective means of improving the perceptions of their selection processes.

Gilliland, Groth, Baker, Dew, Polly, and Langdon (2001) found that providing applicants with information about the selection process in terms of what to expect and how the process is job-related prior to their participation, reactions were successfully improved. Shaw et al. (2003) suggest that preempting a possible unfavorable stimulus with an explanation to the applicant may mitigate the negative perceptions of the process. They also found that presenting the explanation in the form of an excuse was more effective than presenting the explanation as a justification. This effect is mostly due to the propensity for excuses to remove the responsibility and stigma of

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a negatively perceived procedure from the organization. Furthermore, by having the individual provide the explanation in the form of an excuse the applicant was more likely to relate to the individual, circuitously serving as a rapport-building phenomenon. In the context of the current study, assuring interviewees that the presence of a computer in the technology-mediated interviews is solely for the purpose of note-taking should alleviate any negative perceptions towards the fairness of the interview, as well as the interpersonal effectiveness of the interviewer. Given the list of benefits of having positive applicant perceptions presented earlier, the previous example presents an opportunity to improve applicant reactions and reap the benefits at what cost – an extra sentence or two during an interview or recruiting session? Truxillo et al. (2009) also found that providing explanations had a much stronger effect in field and applied settings rather than lab or experimental settings. Furthermore, explanations were more useful for improving reactions to personality tests than for cognitive ability tests. Although providing insight into the selection process to an applicant has been shown to be an extremely inexpensive method for improving fairness perceptions, as well as organizational attractiveness, employers should first conduct a more thorough examination into what it is they are trying to justify, as deeper issues may be present.

> **Hypothesis 5***:* Within computerized note-taking interviews, applicants will provide significantly higher mean ratings for a) the fairness of the interview; b) the interpersonal effectiveness of the interviewer; c) their intentions to accept the position if offered; and d) their intentions to reapply if not offered the position in the explanation condition than in the non-explanation condition.

Methods

Participants

  The sample for this study was comprised of undergraduate students at Central Michigan University who interviewed for one of three volunteer positions within the university's Leadership Safari program. Leadership Safari began when residence hall students at the university decided to organize a formal program that could help them understand and develop fundamental leadership skills; it has been in operation for nearly two decades. The inaugural running of the program attracted a total of 65 participants, but has experienced steady growth to a total of 1,852 participants in 2013. The Leadership Safari program is designed to offer incoming first-time undergraduate students a forum for learning valuable academic and social strategies for success in college and how building strong leadership qualities inside and outside the classroom facilitates one's development. The three positions that participants had the opportunity to apply for were: 1) guides, 2) C-team members, or 3) team runners who were designated as either new or returning. Intuitively, applicants to new positions had never worked for Leadership Safari, whereas returning applicants are those who previously held the position in which they had applied. Guides are responsible for leading a group of incoming students and helping them adjust to college life in the following areas: being away from home; getting involved on campus; networking; and making new friends. C-team members take on a more facilitative role, in that they are responsible for helping guides organize and carry out activities throughout the course of the program; operating the program's challenge course; and promoting group bonding. Team runners are more behind-the-scenes volunteers in that they are primarily responsible for setting up events, such as seating, program development, and program logistics.

Each of these positions requires applicants to be current CMU undergraduate students and maintain a minimum 2.25 grade point average.

Interview Process.

The annual recruiting process for the available positions is rather simplistic. Leadership Safari uses two primary recruiting tactics: speaking with participants, and posting fliers. As part of the program, Safari guides speak to their participants about the benefits of and process by which one can earn a leadership position in following years. Those who are interested typically had a positive experience in the program and want to stay involved. Additionally, Leadership Safari recruits new volunteers by posting fliers around the residence halls on campus and offering brief information sessions regarding the staffing process and expectations for those who are interested in applying. Applications are acquired through the program's online application process.

Once applicants were screened to ensure that they meet the academic requirements, they were invited to register for the interviewing process. The interviews followed a semi-structured format, in that the questions were a mix of past behavioral response items commonly found in more highly structured interview schedules, and open-ended items more typical of unstructured interviews. A sample past behavioral response item is: "Tell us about a time when you were put in a situation where a group you were working with was not cohesive, what did you do?" A sample open response item is: "What do you hope to gain from the Leadership Safari program?" The interviews for each of the three positions consist of the same six questions, and typically last between 10 and 15 minutes per applicant. The full interview schedule for one of the positions is included in Appendix A. Two interviewers conduct the interview for each applicant. Prior to conducting any interviews, the interviewers have to be trained on what the interview consists of;

the differences between acceptable and unacceptable applicant responses; how to rate the performance of the applicants; and which note-taking category under which they will be operating.

Interviewers who took notes with laptops, which were provided to them by the university for the purposes of the interviewing process, were randomly assigned into the explanation condition. Interviewers in the explanation category were told to say the following before asking the first interview question: "Please don't mind the computers, we are using them for note-taking purposes only." Those in the non-explanation condition were told not to acknowledge the presence of the computer during the interview and treat it as a naturally as possible. After the applicants were finished with an interview, the interviewer handed them a pencil-and-paper version of the survey and directed them to a designated area specifically for its completion. Prior to filling out the survey, applicants were provided written assurance that their responses to survey items were for research purposes only and would play no part in the selection process.

Measures

The post-interview questionnaire presented to applicants was preceded by a brief introduction outlining the anonymity and confidentiality of the respondent as well as explicitly reiterating that their responses would not, in any way, factor in to the selection decisions made by Leadership Safari. A non-proctored area outside of the interview room was provided for the applicants to fill out the surveys, which lasts less than ten minutes each. The full questionnaire is provided in Appendix B.

Manipulation Checks. Two manipulation check variables are included in the survey. They are: "Did the interviewers take notes via paper and pencil or laptop?;" and "Did the interviewers explain to you how they would be taking notes?" These variables will be used to

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ensure that the manipulations were a) carried out by the interviewers; b) picked up on by the interviewees; and c) to serve as a supplemental means of pairing interviewers to interviewees.

Demographics. General applicant information will be gathered via multiple choice response options. Information to be gathered for exploratory purposes include gender, age, ethnicity, and position applied to. In order to control for prior work experience and interview familiarity, the following items are asked: "How many jobs have you previously held?"; and "How many job interviews have you participated in?" Response options for the work/interview experience items are an numbered scale (*0, 1, 2, 3, 4 or more*). In order to assess for which position the applicant interviewed the following options were presented: *Guide – New; Guide – Returning; C-Team – New; C-Team – Returning; Team Runner – New;* or *Team Runner – Returning*.

Interviewer Interpersonal Behaviors. In order to measure the applicants' perceptions regarding the interpersonal effectiveness of the interviewer, a composite score was calculated using items that were adapted from the Selection Procedural Justice Scale (SPJS) developed by Bauer et al. (2001). The SPJS comprehensively measures the procedural justice dimensions outlined by Gilliland (1993), and items were adapted to be specifically targeted toward the applicant's perceptions of the interview based on interviewers' interpersonal behaviors. Although the scale itself covers the full spectrum of procedural justice, not all subscales were relevant to the measure of interviewer interpersonal behavior. As such, the dimensions included in the present study are: treatment and two-way communication. All items were assessed using the following 5-point Likert scale (1 = *Strongly disagree,* 2 = *Disagree*, 3 = *Neither agree nor disagree*, 4 = *Agree*, and 5 = *Strongly Agree*).

Treatment was measured using five items pertaining to the applicant's perception of how well the interviewer interacted during the interview. Treatment differs from openness in that the openness scale was more focused on the honesty of the interviewer and the information provided, whereas treatment centers on the interpersonal skills of the interviewer. An example item from the treatment scale is: "The interviewers treated applicants with respect during today's interview." *Two-way communication* refers to the applicant's perceived effectiveness of the interviewers' communication skills (both verbal and non-verbal), as well as the perceived opportunity for the applicant to communicate beyond the specifics of the interview questions; the scale consisted of eight items. Sample items from the two-way communication scale are: "I would have felt comfortable asking questions about the interview if I had any"; and "The interviewers made adequate eye contact during the interview."

Perceived Fairness of the Interview. The items measuring interviewees' perceptions of the fairness of the interview were adapted from the Smither et al. (1993) scale that focuses more on the applicant's internalized perceptions of the interviewing process. The procedural justice scale from the Applicant Reactions Scale is included in the present study. Each item is measured using the same 5-point Likert scale as the SPJS items listed above (1 = *Strongly disagree,* 2 = *Disagree*, 3 = *Neither agree nor disagree*, 4 = *Agree*, and 5 = *Strongly Agree*). *Procedural justice* pertains to how legitimate the applicant perceived the interview to be. Three items were used to measure the fairness of the interview, such as: "Overall, I believe that the interview was fair."

Computer Attitudes Scale (CAS). To assess comfort with computers, the applicants were given the items from the CAS, adapted from Liaw (2002). Items from the CAS focused on their daily computer use, as well as their comfort level being in the presence of computer usage

by another during a selection process. The scale consisted of 14 items using a 7-point Likert response option (1 = *Strongly disagree,* 2 = *Disagree*, 3 = *Somewhat disagree,* 4 = *Neither agree nor disagree*, 5 = *Somewhat* a*gree*, 6 = *Agree,* 7 = *Strongly agree*). A sample item from the scale is: "I feel comfortable in the presence of a personal computer during an interview."

Intentions to Accept Offer /Reapply. One of the main considerations in the applicant reactions literature presented in the introduction above is that a negatively perceived selection process can have an undesirable effect on one's propensity to accept an offer from that organization. As such, three items were adapted from Powell (1984) focusing on applicants' intentions toward the organization based on their experience with the selection process. A sample item from this scale is: "Given how you feel now, what are the chances that you would accept an offer if one was made to you by this organization." Each item is accompanied by a blank box and responded to on a scale from 0% to 100%.

Perceptions of Notes Taken. Because the primary manipulation in this study is the presence of a laptop for note-taking purposes during a selection interview, it is important to gauge the applicant's perception of both the quality and quantity of notes taken by the interviewer. As such, items were included as a control variable to measure interviewees' perceptions of the notes taken by the interviewer. A search of the literature revealed no pre-existing scale pertaining to perceptions of notes taken, leaving the researcher to create his own. Three items were developed to measure the applicant's perceptions of the interviewers' note taking abilities. A sample item is: "The notes regarding my responses taken by the interviewer are accurate." One item, "The interviewer did not take enough notes to make adequate ratings of my performance" was reverse coded. Each item was assessed using the following 5-point Likert

scale (1 = *Strongly disagree,* 2 = *Disagree*, 3 = *Neither agree nor disagree*, 4 = *Agree*, and 5 = *Strongly Agree*).

Perceived Interviewer Affectivity. The current research was also interested in exploring applicant ratings of interviewer affective attributes. The PANAS-X (Watson & Clark, 1994) lists a variety of traits that fall under two overarching dimensions: Positive Affect and Negative Affect. Interviewer Positive Affect was separated into two sub-categories: Internal and External. Internal Positive Affect refers to the extent to which the applicant perceived the interviewer's internal affective state (e.g. alertness, attentiveness), whereas interviewer External Positive Affect pertains to the applicant's perceptions of the interviewer's outward affective behaviors (e.g. enthusiasm, interest in the applicant). The respondent then makes ratings of each attribute on a 5-point Likert scale to the following statement: "Indicate to what extent the interviewers displayed this trait during your interview experience" (1 = *Very slightly or not at all;* 2 = *A little*; 3 = *Moderately*; 4 = *Quite a bit*; 5 = *Extremely*). The eight positive affect traits selected for this study were: alert, attentive, concentrating, determined, active, enthusiastic, excited, and interested. The four negative affect traits selected were: nervous, jittery, irritable, and hostile.

Exploratory Measures. In addition to the primary measures being examined by the present study, post hoc exploratory analyses will be conducted to determine if other significant relationships exist in the model. The following two scales (chance to perform; openness) were adapted from the Bauer et al (2001) SPJS. *Chance to perform* was assessed using four items which referred to the applicant's perception of being able to properly display his/her skills and abilities to the interviewer. An example item is: "This interview gives applicants the opportunity to show what they can really do." *Openness* was assessed by four items pertaining to the extent

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to which the interviewers were perceived to be candid and honest throughout the interview. A sample item is: "I was treated honestly and openly during the interviewing process."

Three additional subscales from the Smither et al (1993) Applicant Reactions Scale were also included: affect, perceived knowledge of results, and recommendation. *Affect* pertains to the applicant's emotional response to the interview. Two items were used to measure this construct. A sample item is: "I enjoyed the interview to a great degree." *Perceived knowledge of results* refers to the applicant's perceived performance on the interview. This scale was assessed using three items, for example: "I knew exactly on what aspects of the interview I performed well and poorly." *Recommendation* pertains to how likely the applicant would be to recommend Leadership Safari to other potential applicants based on the interviewing process. This scale was comprised of a single item: "Based on my experience with the interviewing process, I would encourage others to apply to work for Leadership Safari.

Analyses

Preliminary analyses were conducted to test the normality of the data. The initial test of normality was to plot the data using a histogram, which displays the extent to which a variable follows a normal distribution. A P-P plot was also examined to compare the cumulative probability distributions of the sample to a normal distribution. Normality was also assessed by testing for skewness and kurtosis in the data set. In addition, tests were conducted to address the four primary assumptions of a regression model: linearity; independence of the errors; homoscedasticity; and normality of the error distribution. Descriptive statistics were also conducted to further analyze the data. Furthermore, because the primary model is comprised of variables derived from composite scoring, factor analyses were conducted to determine whether the relevant subscales are adequate for being combined.

Results

In order to remove respondents who likely responded non-purposefully, there were a total of six cases that were predominantly incomplete or had no variance within three or more survey scales (i.e. three or more scales were the minimum or maximum composite value) and were deleted. Frequency values were also evaluated for each variable to ensure that no data entry errors occurred. A total of 291 surveys were completed, returned to the principal investigator, and qualified for the study. Of those, 78% (N = 227) were female; 89.3% (N = 260) identified as Caucasian; and 96.9% were 21 years of age or under (N = 282). In regards to the interviews, 81.8% (N = 238) were new applicants (i.e. applicants who had not previously held a position within Leadership Safari); 39.2% (N = 114) were interviewed while computerized notes were taken -- a lower than expected proportion due to interviewer scheduling conflicts, applicant attrition, and other unforeseen causes. Of those who were interviewed in the presence of a laptop, 64% (N = 74) reported that they were given an explanation regarding the notes being taken. Again, this number was expected to be closer to 50%, but due to design constraints the explanation variable had to become a self-report measure. These complications will be further elaborated upon in the discussion and limitations sections to follow.

The data were first tested to ensure that the assumption checks of regression and mean comparison analyses were met. First, examination of histograms and P-P plots indicated that the distributions for all interval-scale variables were approximately normal. As such, no logarithmic transformations were necessary. Variances between the note-taking groups were also generally equivalent except for the dependent variable of "Intentions to Accept." Likewise, variances between explanation groups within the computerized note-taking condition were roughly equivalent except for "Intentions to Accept." Thus, all mean comparisons for the intentions to

accept variable were conducted without assuming equal variances between the groups being compared. In examining scatterplots of the relevant variables, it can be inferred that the data meets the requirement of homoscedasticity, and also that relationships between variables followed a linear trend. Furthermore, an examination of P-P plots on the residuals from regressions between relevant interval-scale variables revealed that regression errors in the data were approximately normally distributed.

Table 1 displays the means, standard deviations, scale reliabilities, and Pearson product-moment correlations among all study scales. When interpreting scale reliability coefficients, the most commonly accepted heuristic is that anything higher than .70 is considered acceptable, whereas anything at or above .90 is deemed excellent (George & Mallery, 2003). Although, ratings of interview fairness elicited the lowest scale reliability (.72), it is still above the desired cutoff. Three scales achieved "excellent" reliability: perceptions of interviewer behaviors, applicant comfort with computers, and applicants' perceived opportunity to perform in the interview. It is also worth noting that the primary applicant reactions scales (fairness, interviewer behaviors, affect, and results knowledge) were strongly intercorrelated with one another ($r \geq .50$). Other noteworthy correlations were yielded from the interviewer affectivity scales. Whereas positive affectivity (PA) in interviewers yielded moderate correlations with numerous indices for applicant reactions and interviewer behaviors, negative affectivity (NA) in interviewers showed weak or null relationships with these variables. However, interviewer NA showed a strong negative correlation with the perceived amount of notes taken ($r = -.44$), whereas PA exhibited no relationship with perceived notes taken. These findings could possibly indicate that interviewers who elicit higher PA ratings could be perceived by the applicants to be more positively engaged, leading to higher ratings of the interviewers' social behaviors, whereas

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interviewers who elicit higher ratings on negativity (e.g. irritability, hostility) may be perceived as being engaged but unfair, which could manifest in lower ratings on the interviewer's notes.

Hypothesis Testing

In order to test the differences in ratings of fairness, interviewer effectiveness, intentions to accept an offer, and intentions to reapply between those interviewed using traditional note-taking style and those interviewed using a laptop (hypothesis 1), two independent-samples *t*-tests were conducted, and effect sizes were estimated using the Cohen's *d* statistic. The same tests were used to analyze the differences in ratings between those who were presented an explanation for the laptop and those who were not (hypothesis 5).

The overall moderated mediation model proposed throughout the hypotheses was tested first using a piecemeal approach, followed by holistic model testing. Zero-order correlations estimated the direct relationships proposed by the study. The mediation hypothesis was tested using the Preacher and Hayes (2004) bootstrapping method, which is a non-parametric test that allows for the calculation of effect sizes and hypothesis testing by the process of replacement from the original data set across several iterations. Bootstrapping is preferred over the common causal steps approach (Baron & Kenny, 1986), in that it has been shown to result in more accurate standard errors when estimating the indirect effects and thus provides the best defense against false positives, or Type I error (Hayes, 2009). The moderation model proposed in the fourth hypothesis was tested using hierarchical multiple regression analysis. All regression variables were first converted into standardized z-scores before being entered into the model. The first step of the regression model included the comfort with computers score. The second step was the inclusion of the note-taking style variable into the model. The last step was the inclusion of the interaction term between comfort with computers and note-taking style (comfort

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X note style) into the model. Although, overall model R^2 and individual standardized β were examined, ΔR^2 and the strength of the interaction term inspected for significance, ultimately determining the success of the model.

The results of all mean comparisons (*t*-test and Cohen's *d* effect size analyses) between the traditional and laptop note-taking conditions are presented in Table 2. Hypothesis 1 predicted that applicants in the traditional pencil-and-paper note-taking condition would provide higher ratings for the interpersonal behaviors of the interviewer than applicants in the computerized note-taking condition. Similarly, Hypothesis 2 predicted that applicants whose interviewers took notes via pencil and paper would provide higher ratings for a) the fairness of the interview as a whole; b) intentions to accept the position if an offer is made; and c) intentions to reapply if an offer is not received than those in the computerized note-taking condition.

The differences between note-taking groups were negligible for both ratings of interview fairness ($M_1 = 13.59$; $M_2 = 13.32$; $t(289) = 1.23$, $p = n.s.$, $d = .15$), and interviewer social behaviors ($M_1 = 62.51$; $M_2 = 62.16$; $t(289) = .74$, $p = n.s.$, $d = .09$), failing to support hypotheses 1 and 2a, respectively. The group differences for intentions to accept ($M_1 = 98.59$; $M_2 = 99.64$; $t(289) = -1.47$, $p = n.s.$, $d = -.18$) and intentions to reapply ($M_1 = 82.30$; $M_2 = 84.36$; $t(289) = -.64$, $p = n.s.$, $d = -.08$) were not salient enough to be of statistical implication, failing to support hypotheses 2b and 2c. It should be noted, however, that only applicant comfort with computers elicited statistically significant differences between the two note-taking styles. This effect will be investigated more fully in the explanatory analyses.

In order to analyze the mediation and moderation hypotheses, the interval-scale variables in the analysis were first centered using z-score transformations (Aiken & West, 1991). For mediation, the PROCESS macro for SPSS (Hayes, 2013) was used. Because the macro does not

allow for multiple dependent variables to be added into a mediation model simultaneously, a mediation model was run for each dependent variable. The three models specified that ratings of interviewer social behaviors will mediate the relationship between note-taking style and: 1) interview fairness (hypothesis *3a*); 2) intentions to accept an offer (hypothesis *3b*); and 3) intentions to reapply if an offer is not received (hypothesis *3c*).

Model 1 of the mediation analysis included interview fairness as the outcome variable. Interviewer social behaviors had a significant direct effect on interview fairness ($\beta = .66$, $t(289) = 14.77$, $p < .001$). However, note-taking style did not significantly predict interview fairness, as both the direct and indirect effects were incredibly weak, which substantiates the results of the *t*-tests presented earlier. Without a significant direct effect of note-taking style on interview fairness, mediation cannot be inferred, failing to support hypothesis *3a*. Model 2 included intention to accept as the outcome variable, on which interviewer behaviors did not have an effect ($\beta = .00$, $t(288) = .06$, $p = n.s.$), thus suggesting that mediation was again not present. Finally, model 3 consisted of intention to reapply as the outcome variable. The effect of interviewer social behaviors on intention to reapply was significant ($\beta = .15$, $t(289) = 2.63$, $p < .01$), but once again the direct and indirect effects of note-taking style were too weak to infer mediation, further supporting the results of the *t*-tests presented earlier. Overall, note-taking style had no effect on the prediction of ratings for interviewer behaviors, nullifying its viability as a mediator in any of the proposed models. Furthermore, note-taking style had very weak effects on all of the outcome variables, disqualifying it as a feasible predictor variable. As such, hypothesis 3 received no support.

A two-step hierarchical multiple regression analysis was conducted to investigate whether the relationship between an applicant's presence to specific note-taking styles and

ratings of interviewer behaviors were dependent on the applicant's level of comfort with computers. The note-taking and applicant comfort with computers variables were entered in the first step of the regression, and the interaction term was entered in the second step. Table 3 presents the results of the moderated regression analysis. The results of step one ($R^2 = .083$) indicated that note-taking style (b = -.99, SE_b = .48, β = -.12, $p < .05$) and applicant comfort with computers (b = .16, SE_b = .03, β = .30, $p < .001$) were both associated with ratings of interviewer behaviors. However, the results of the second step ($R^2 = .084$, $\Delta R^2 = .001$) revealed that the interaction between note-taking style and comfort with computers (b = .04, SE_b = .07, β = .10, p = .59) was not significant, failing to support the moderating effect proposed in hypothesis 4. Furthermore, the correlation coefficients split by note-taking condition presented in Table 5 indicate that for individuals in the laptop condition, computer comfort was only slightly more predictive ($r = .26$) of interview fairness than the pencil and paper condition ($r = .24$).

An interesting quandary with these results is the significant (though weak) relationship between note-taking style and interviewer social behaviors which runs counter to the hypothesis test results in prior analyses within this study. A likely explanation for this discrepancy is the presence of an additional predictor in the regression model, which affects the estimated variance explained by note-taking style. In a regression with more than one predictor, the main effect from one predictor is estimated when the value of the second predictor is constrained to zero. Because the computer comfort variable was centered prior to analysis, these results suggest that the note-taking medium has a modest relationship with interviewer behaviors when an applicant has an average level of computer comfort. However, there is no evidence for a relationship between note-taking style and interviewer behaviors when computer comfort is not considered (based on results from zero-order correlations and t-tests). As a result, it is possible that there is

an unexpected pattern of relationships between these three examined variables above and beyond what was found in testing study hypotheses. These potential relationships will be further examined in exploratory analyses.

Prior to conducting exploratory analyses, hypothesis tests concerning the effect of explanations were conducted. Using only data from the computerized note-taking condition, results of the t-test and effect size analyses from comparing explanation conditions are presented in Table 4. It was hypothesized that those receiving an explanation for the use of a laptop would have higher ratings for interview fairness, interviewer behaviors, intentions to accept an offer, and intentions to reapply (hypothesis 5).

Scores for interview fairness ($M_1 = 13.38$, $SD_1 = 1.87$; $M_2 = 13.23$, $SD_2 = 1.79$; $t(112) = .42$, $p = n.s.$, $d = .08$), interviewer behaviors ($M_1 = 62.18$, $SD_1 = 4.27$; $M_2 = 62.13$, $SD_2 = 4.09$; $t(112) = .06$, $p = n.s.$, $d = .01$), and intentions to accept an offer ($M_1 = 99.78$, $SD_1 = 1.00$; $M_2 = 99.38$, $SD_2 = 2.32$; $t(112) = 1.31$, $p = n.s.$, $d = .25$) were nominally higher, but not significantly different, for those who received an explanation. On the other hand, intentions to reapply if an offer was not received ($M_1 = 83.54$, $SD_1 = 29.57$; $M_2 = 85.88$, $SD_2 = 19.41$; $t(112) = -.45$, $p = n.s.$, $d = -.09$) were higher for those who did not receive an explanation, though also not significant. Because all group differences failed to meet significance, hypotheses $5a – 5d$ were not supported.

Exploratory Analyses

Given the effects from computer comfort that were exhibited in previous hypothesis tests, exploratory analyses centered on computer comfort as the primary predictor of interviewer behaviors. Furthermore, given the weak results from the note-taking condition, this variable was only considered as a moderator, in that computer comfort should only be a relevant predictor

when one is in the presence of a computer. Another aim of exploratory analyses was to examine the perception of notes taken as a relevant outcome variable, as this variable appeared relevant to the study yet was not included in hypothesis tests. To summarize, computer comfort was treated as a predictor of various outcome variables, with interviewer social behaviors serving as a mediator. Furthermore, note-taking condition was tested as a moderator of these relationships.

Out of the several models tested, the most compelling emergence is illustrated in Figure 2. Bootstrapped confidence intervals indicated a strong relationship between applicant comfort with computers and perceptions of notes taken, mediated by interviewer behaviors (point estimate = .06; 95% percentile CI = 0.02 to 0.11). Furthermore, this path is fully moderated by note-taking style, as the indirect effect is not significant for pencil and paper notes (point estimate = .04; 95% percentile CI = -0.005 to 0.14) and statistically significant for computerized notes (point estimate = .10; 95% percentile CI = 0.04 to 0.22). Therefore, applicants who were more comfortable with computers reported more favorable perceptions of the notes taken with a laptop, a relationship which was partially explained through applicant perceptions of interviewer behaviors. Surprisingly, computer comfort also strongly predicted ratings of interviewer social behaviors (b = .53) in the pencil-and-paper condition, though it did not predict perceived note quality as it did in the computerized note-taking condition. This unexpected relationship will be examined more deeply in the discussion section.

Other exploratory analyses investigated the unique effects of interviewer behaviors, chance to perform, and perceived knowledge of results on interview fairness. As such, a multiple regression was used to control for the overlap among these predictors to examine their relative contribution in explaining perceived interview fairness. Results indicated interviewer social behaviors had a strong positive relationship with interview fairness (β = .43, t = 8.29, $p <$

.01), and results knowledge maintained a moderate relationship (β = .29, t = 5.64, p < .01).

However, the relationship between chance to perform and interview fairness became

nonsignificant (β = .09, t = 1.91, p = .06). As it would be reasonable to expect that an applicant's

perception of note quality could explain the relationships between these predictors and fairness,

mediation analyses were subsequently conducted. Bootstrapped confidence intervals were

analyzed to determine whether perceptions of the quality of notes taken mediated the

relationships between both significant predictors, respectively, and interview fairness. The

indirect effect of interviewer behaviors on interview fairness through perceptions of notes was no

different from zero (-.01; 95% percentile CI = -0.03 to 0.01). The same was found for the

indirect effect with results knowledge as the predictor (.00; 95% percentile CI = -0.01 to 0.02).

Thus, although interviewer social behaviors and results knowledge predicted fairness, analyses

found no mediation of the paths via perceptions of notes.

An additional multiple regression was conducted to explore the unique effects of

interviewer openness, interviewer social behaviors, chance to perform, and knowledge of results

on perceptions of notes taken during the interview. Interviewer openness had a positive

relationship with perceptions of notes (β = .20, t = 2.69, p < .01), as did interviewer behaviors (β

= .21, t = 3.01, p < .05), and chance to perform (β = -.18, t = -2.86, p < .01), but knowledge of

results did not (β = -.01, t =- .17, p = $n.s.$). Once again, bootstrapped confidence intervals were

analyzed to determine whether interview fairness mediated the relationships between both

significant predictors, respectively, and perceptions of notes. The indirect effect of interviewer

openness on perceptions of notes through fairness was no different from zero (.00; 95%

percentile CI = -0.04 to 0.05), as was the relationship between interviewer behaviors and

perceptions of notes through fairness (-.05; 95% percentile CI = -0.13 to 0.05). However,

interview fairness did mediate the relationship between chance to perform and perceptions of notes taken (.04; 95% percentile CI = 0.01 to 0.08), intuitively meaning that those who felt that the interview provided them the best opportunity to display their unique attributes perceived higher quality notes were taken when they also perceived the interview to be fair. Although it would seem more logical for interview fairness to be the outcome and perceptions of notes the mediator, mediation analyses did not support such a model.

Finally, in examining the variables associated with applicants' likelihood to recommend Leadership Safari to others, interviewer behaviors (β = .45, t = 6.79, p < .01), Interview fairness (β = .28, t = 4.34, p < .01), and results knowledge (β = -.12, t = -2.09, p < .05) were the most relevant predictors. Significant indirect effects for the relationships were not found.

Discussion

The primary purpose of this study was to determine whether employment interviewers who take notes electronically would have an impact on applicants' perceptions regarding the interview, the interviewer, and the organization. As previous research has generally neglected to study the effect of the note-taking medium in an interview, the present study attempted to fill the gaps in research and boldly go where no prior interview study had gone before. Prior research has shown that selection interviews are not only the most ubiquitous selection tool (Silvester & Anderson, 2003), but also the most fair in the eyes of applicants (Hausknecht et al, 2004). As we delve deeper into the technological age, it should come as no surprise to see traditional note-taking methods (e.g. pencil and paper) fall to the wayside. As such, this study took a much-needed first step in the direction of determining the effects from this shift in interviewer note-taking.

Essentially, the results indicated that applicant perceptions of the interview and interviewer were not directly influenced by the note-taking style, as the differences between the two groups were negligible and note-taking style failed to elicit a significant direct effect on any of the study variables. More specifically, interviewers who used a laptop had no effect on the applicants' perceptions of interviewer behaviors or interview fairness, nor their intentions to accept an offer or reapply in the future.

A possible explanation for these findings is that because the interview is typically perceived as the most fair selection tool in the eyes of the applicants, more faith is put into the interviewers' abilities to actually conduct the interview, regardless of how notes are taken. Moreover, because note-taking style did not adequately predict perceptions of interviewer social behaviors, it may be that note-taking is expected and the manner in which interview notes are taken is not very salient when compared to the actual interaction between applicant and interviewer. It is reasonable to expect that an interviewer who aims to provide a comfortable interview process will seek to avoid drawing attention to his/her note-taking as it would interfere with applicant engagement. This is a promising lead moving forward, in that perhaps interviewees might not be as concerned with interviewer note-taking behaviors as once believed (Fisher et al, 1979). Indeed, although the study hypotheses were not supported, the null findings are good news for interviewers who value flexibility in their note-taking methods.

With regard to the hypothesized effects from including an explanation in the computerized note-taking condition, the lack of meaningful differences between note-taking groups ultimately made it difficult to find meaningful differences between explanation conditions within the computerized note-taking group. In order for an explanation to be meaningful in a research setting, at least part of the methodology needs to elicit consistent

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negative perceptions from the applicants, which did not occur in the present study. The results presented herein just add to the inconclusive findings in the explanation literature mentioned previously.

In lieu of any effects from interviewer note-taking style, applicant computer comfort appeared to be a much more relevant variable in explaining applicant perceptions of the interview. Exploratory analyses indicated that applicant comfort with computers is indirectly related to perceptions of note quality through its influence on the perceived interpersonal behaviors of the interviewer. This dynamic was only detected in the computerized note-taking condition. In the paper-and-pencil interview setting, computer comfort surprisingly predicted perceived interviewer behaviors, but it did not relate to perceived note quality. One potential explanation for these findings is that computer comfort simply affects how applicants perceive the interview rather than the actual course of interviewer interactions. Applicants who are more comfortable with computers presumably project their feelings of comfort onto the interviewer. In other words, applicants who are more comfortable using, and being around, computers in everyday activities were more likely to project their attitudes onto the interviewers who were using computers to take notes, ultimately resulting in perceptions of higher quality notes being taken by the interviewers. This finding could possibly be the result of range restriction within the computerized note-taking condition: findings were suppressed due to the higher mean comfort scores within that group. Another explanation is that computer comfort leads to more effective applicant behavior in the interview that facilitates interviewer behaviors. Applicants who are comfortable with computers can more easily engage interviewers using a computer, thus leading to more effective interactions and notes from the interview. Going one step further, it may be that individuals who are comfortable with computers have greater confidence and lower

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anxiety in general. Research has shown that applicants who are more confident and contain higher levels of interview self-efficacy tend to perform better in interviews (Ryan, Daum, and Friedel, 1993). This might help explain the surprising relationship between computer comfort and interviewer behaviors for the pencil-and-paper condition from the exploratory analyses. Regardless of the reason for its effect, the results from this study suggest that applicant computer comfort is a meaningful factor when conducting interviews using a laptop. As a result, interviewers may be well served to check an applicant's comfort level prior to using a laptop in an interview. Although explanations did not exhibit a significant effect in this study, an explanation for using the laptop may still prove useful if a particular applicant is not comfortable with computers.

Interviewer note-taking style aside, interviewer behaviors and knowledge of results were found to be viable predictors of interview fairness. In other words, applicants who perceive the interviewer as being effective within that role are more likely to also perceive the whole interview process as being fair. Furthermore, applicants who exited the interview with a strong understanding of their individual performance in the interview, whether good or bad, also perceived the interview as being fair, which is consistent with prior research (Hausknecht et al, 2004). Beyond fairness, predictors of applicant perceptions of the notes taken by the interviewer were also investigated. Consistent with prior research suggesting that interviewer attributes play an important role in applicant reactions (Schmitt & Coyle, 1976), this study's findings indicated that perceptions of interviewer openness and interviewer behaviors predicted perceptions of the notes being taken. Furthermore, the perception of the interview's ability to allow the applicant to adequately display individual qualities also influenced perceptions of the quality of interviewer notes.

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Limitations

As with any study, the present research was not without limitations. One such limitation dealt with constraints on data collection. As this study collected data with the permission from a participating organization, the primary investigator had little control on the collection methodology. As such, all research variables had to be collected at one time point through self-report methodology, which raises the issue of inflated correlations due to common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Such artificially inflated correlations can increase the likelihood of spurious findings (i.e. type 1 error). As no study hypotheses were supported, there is little danger of a type 1 error with regards to primary analyses, but significant findings from exploratory analyses may reflect such errors.

Another methodological limitation is that applicant comfort with computers was collected after the interview was conducted, which may have been influenced by the note-taking style of the interviewer. This phenomenon is supported by the mean differences between note-taking conditions on computer comfort that favor the computerized note-taking condition. Ideally, computer comfort would have been measured prior to the interview, but practical constraints prohibited this from happening. Furthermore, multiple interviews were conducted at once in a large room, so those whose interviewers were taking notes via computer could see that other interviewers were taking written notes, which may have influenced their responses. However, it is unlikely that the priming effect discovered here would invalidate the relationship between computer comfort and interview reactions, as the relative differences in comfort between applicants would remain. In other words, computerized note-taking may have elicited an increase in comfort ratings for applicants, but the relative differences in comfort, not the absolute

levels, are what appear to drive the observed relationships between computer comfort and the outcome variables.

In addition, interview length may have also limited the findings of the study, as applicants were only given approximately 10 minutes for each interview. As a result, there exists the possibility that applicants were not afforded the necessary amount of time to make adequate perceptions of interviewer behaviors and other aspects of the interview. The applicants were made aware of interview length when scheduling their appointments, so it stands to reason that they may have been more focused on presenting as much personal information as possible in such a short time span.

A final possible issue with the instrument was that, although respondents were assured that their ratings would in no way affect selection decisions, the survey itself contained the logo for Leadership Safari. This may have mistakenly led some participants to believe that their responses were ultimately going to be viewed by Leadership Safari staff. This issue raises concerns of acquiescence biases in the responses, in which applicants are more likely to endorse positively valenced responses because they perceive that it will please the organization with whom they are interviewing.

Characteristics of the study sample may have also limited the findings in this study. Although the applied sample was highly desirable, the fact that the applicants were undergraduates interviewing for a volunteer position may have introduced problems of its own. For example, the lack of real work and/or interview experience might have introduced response bias by not having fully developed expectations for interview procedures, as well being interviewed by other (though more advanced) undergraduate students. Furthermore, potential age biases could not be explored due to the lack of older adults in the sample. Most

undergraduate students have grown up with computers playing a larger role in their daily lives, resulting in greater acceptance for using them in everyday tasks. Thus, results from the current study may not generalize to older applicant samples. However, it is anticipated that any effects from age could be explained by differences in computer comfort, whose effects were noted in the current study.

A limitation affecting the results of the explanation hypotheses is that the explanation variable was unable to be used as a true manipulation check. Applicants who were supposed to receive the explanation were not able to be verified; instead, the variable had to be measured through a self-report item, which relied on whether or not the explanation was salient enough to be perceived by applicants. Thus, it is possible that some applicants receiving the explanation for the notes did not remember to report it or, conversely, applicants falsely remembered an explanation when asked. It should be noted that potential significant effects may have been washed out due to the unreliability of the explanation condition resulting from practical constraints in the methodology (i.e. type 2 error). However, given the minimal effect of the note-taking medium on applicant reactions, it is unlikely that explanations would even have the opportunity to exert a robust effect.

Future Directions

The present study provides a stepping stone for future research on applicant reactions to technology-mediated interviewing. For starters, many of the limitations of the current study could be conceivably remedied by adjusting for the methodological issues outlined above. For example, collecting the measures at different time points (pre- and post-interview) could alleviate some of the primary measurement issues previously described. Also, having a plan in place to track both the applicant's perception of an explanation, as well as the interviewer's

offering of one would provide for stronger interpretations of the results. In addition, it would be best for the applicant and interviewer(s) to be alone in the room, as opposed to the larger, conference room style interviewing practice utilized by the present study. Furthermore, a similar study consisting of applicants for paid employment and representing a variety of age groups would likely be of more practical relevance.

Future studies would also benefit from a closer examination of applicant computer comfort and the nature of its effect of applicant interview perceptions. For example, research is needed that examines applicant computer comfort in conjunction with measures of generalized efficacy and trait anxiety. These measures can help distinguish any unique effects from computer comfort from related concepts that are potential factors in the results observed from the present study. Research would also benefit from recording the interviews and keeping the physical notes taken by the interviewers, which could then be evaluated and quantified in terms of effectiveness by independent raters. This approach would help determine if computer comfort operates by merely influencing applicant perceptions or if computer comfort actually improves applicant behaviors in an interview.

As modern computing technology becomes more oriented around size and mobility, another potential segue for future research is to incorporate more mobile technology into the interview process. For example, research may compare interviewers using handheld devices or tablets to determine any subsequent effects on applicant perceptions. A study by Childs and Landreth (2006), investigated the functionality of conducting interviews and entering responses via handheld mobile computing devices. Their results indicate that the use of handheld and mobile computing devices elicited no negative reactions from either interviewers or interviewees, displaying their viability for conducting interviews as long as certain conditions are

met (e.g. proper interviewer training, interview construction that is conducive to the devices, etc.). Future studies could further expand upon such methods by including applicant reactions, as well as interviewer perceptions of the use of these devices in a selection context.

Conclusion

The current research failed to identify any negative effects from technology-mediated interviewer behaviors on applicant perceptions of the interview process. However, applicant comfort with computers appears to play a major role in the perception of computerized note-taking. The results from the current study suggest several promising leads for future studies. Ultimately, the increased prevalence of computer-based tasks in everyday life, especially note-taking practices by current and former students, likely lends to the lack of findings regarding applicant perceptions. As more and more people become increasingly more comfortable using computers on a daily basis, the more easily technology can be incorporated into employment interviews, evidenced by the mediating effect of ratings of interviewer social behaviors between comfort with computers and perceptions of notes taken. This study opens the door for other researchers to further examine what limit, if any, exists in regards to technology-based practices in personnel selection on the applicants they involve.

References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.

Anderson, C.W. (1960). The relation between speaking times and decision in the employment interview. *Journal of Applied Psychology, 44,* 267-268.

Anderson, N., Born, M., & Cunningham-Snell, N. (2001). Recruitment and selection: Applicant perspectives and outcomes. In: Anderson, N., Ones, D.S., Sinangil, H.K., & Viswesvaran, C. (eds.), *Handbook of Industrial, Work & Organizational Psychology, Vol. 1: Personnel Psychology.* London, UK: Sage, pp. 200-218.

Arvey, R.D. & Campion, J.E. (1982). The employment interview: A summary and review of recent research. *Personnel Psychology, 35*, 281-322.

Arvey, R.D. & Sackett, P.R. (1993). Fairness in selection: Current developments and perspectives. In Schmitt, N. & Borman, W. (eds.), *Personnel Selection*. San Francisco: Jossey-Bass, pp. 171-202.

Banjo, O., Hu, Y., & Sundar, S.S. (2008). Cell phone usage and social interaction with proximate others: Ringing in a theoretical model. *The Open Communication Journal, 2,* 127-135.

Bauer, T.N., Truxillo, D.M., Sanchez, R.J., Craig, J.M., Ferrara, P., & Campion, M.A. (2001). Applicant reactions to selection: Development of the Selection Procedural Justice Scale (SPJS). *Personnel Psychology, 54(2),* 387-419.

Bauer, T.N., Truxillo, D.M., Paronto, M.E., Weekley, J.A., & Campion, M.A. (2004). Applicant reactions to different selection technology: Face-to-face, interactive voice response, and computer-assisted telephone screening interviews. *International Journal of Selection and Assessment, 12,* 135-148.

Bauer, T.N., Truxillo, D.M., Tucker, J.S., Weathers, V., Bertolino, M., Erdogan, B., & Campion, M.A. (2006). Selection in the information age: The impact of privacy concerns and computer experience on applicant reactions. *Journal of Management, 32,* 601-621.

Beaulieu, C. (2004). Intercultural study of personal space: A case study. *Journal of Applied Social Psychology, 34*, 794-805.

Biesanz, J.C., Neuberg, S.L., Judice, T.N., & Smith, D.N. (1999). When interviewers desire accurate impressions: The effects of notetaking on the influence of expectations. *Journal of Applied Social Psychology, 29(12),* 2529-2549.

Blackman, M.C. (2002). The employment interview via the telephone: Are we sacrificing accurate personality judgments for cost efficiency? *Journal of Research in Personality, 36,* 208-223.

Bugeja, M. (2005). *Interpersonal divide*. New York, NY: Oxford University Press.

Bureau of Labor Statistics. (2013). *The Employment Situation: October 2013.* Washington, DC: United Sates Department of Labor. Available at http://www.bls.gov/news.release/pdf/empsit.pdf (accessed 11 November 2013).

Burnett, J.R., Fan, C., Motowidlo, S.J., & Degroot, T. (1998). Interview notes and validity. *Personnel Psychology, 51(2),* 375-396.

Campion, M.A., Palmer, D.K., & Campion, J.E. (1997). A review of structure in the selection interview. *Personnel Psychology, 50,* 655-702.

Carlson, R. E., Thayer, P. W., Mayfield, E. C., & Peterson, D. A. (1974). Research on the selection interview. In E. Fleishman & A. R. Bass (Eds.), *Studies in personnel and industrial psychology;* 77–85. Homewood, IL: Dorsey Press.

Chapman, D.S. & Rowe, P.M. (2002). The influence of videoconference technology and interview structure on the recruiting function of the employment interview: A field study. *International Journal of Selection and Assessment, 10,* 185-197.

Chaudhuri, A., Flamm, K.S., & Horrigan, J. (2005). An analysis of the determinants of internet access. *Telecommunications Policy, 29,* 731-755.

Childs, J.H. & Landreth, A. (2006). Analyzing interviewer/respondent interactions while using a mobile computer-assisted personal interview device. *Field Methods, 18*, 335-351.

Cooper, G. (2002). The mutable mobile: Social theory in the wireless world. In B. Brown, N. Green, and R. Harper (Eds.), *Wireless world: Social and interactional aspects of the mobile age* (pp. 19-31). New York, NY: Springer.

Dipboye, R.L. (1982). Self-fulfilling prophecies in the selection-recruitment interview. *Academy of Management Review, 7,* 579-586.

Dipboye, R.L. (1992). *Selection interviews: Process perspectives.* Cincinnati, OH: South-Western.

Dipboye, R.L. (1994). Structured and unstructured selection interviews: Beyond the job-fit model. *Research in Personnel and Human Resource Management, 7,* 79-123.

DiVesta, F.J. & Gray, S.G. (1972). Listening and notetaking. *Journal of Educational Psychology, 64,* 278-287.

Einhorn, H.J. & Hogarth, R.M. (1978). Confidence in judgment: Resistance to the illusion of validity. *Psychological Review, 85,* 395-416.

Einstein, G.O., Morris, J., & Smith, S. (1985). Note-taking, individual differences, and memory for lecture information. *Journal of Educational Psychology, 77,* 522-532.

Farr, J.L. (1973). Response requirements and primacy-recency effects in a simulated selection interview. *Journal of Applied Psychology, 57,* 228-233.

Fisher, C.D., Ilgen, D.R., & Hoyer, W.D. (1979). Source credibility, information favorability, and job offer acceptance. *Academy of Management Journal, 22*, 94-103.

Flamm, K. & Chaudhuri, A. (2007). An analysis of the determinants of broadband access. *Telecommunications Policy, 31,* 312-326.

Flanagan, J.C. (1954). The critical incident technique. *Psychological Bulletin, 51,* 327-358.

Garb, H.N. (2007). Computer-administered interviews and rating scales. *Psychological Assessment, 19(1),* 4-13.

George, D. & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update (4th ed.).* Boston: Allyn & Bacon.

Gilliland, S.W. (1993). The perceived fairness of selection systems: An organizational justice perspective. *The Academy of Management Review, 18(4),* 694-734.

Gilliland, S.W. (1995). Fairness from the applicant's perspective: Reactions to employee selection procedures. *International Journal of Selection and Assessment, 3,* 11-19.

Graves, L.M. & Karren, R.J. (1996). The employee selection interview: A fresh look at an old problem. *Human Resource Management, 35,* 163-180.

Greenberg, J. (1993). The intellectual adolescence of organizational justice: You've come a long way, maybe. *Social Justice Review, 1,* 199-218.

Hakel, M.D., Dobmeyer, T.W., & Dunnette, M.D. (1970). Relative importance of three content dimensions in overall suitability ratings of job applicants' resumes. *Journal of Applied Psychology, 54,* 115-119.

Hanna, P. (2012). Using internet technologies (such as Skype) as a research medium: A research note. *Qualitative Research, 12,* 239-243.

Hartley, J. & Davies, J.K. (1978). Notetaking: A critical review. *Programmed Learning and Educational Technology, 15*, 207-224.

Hausknecht, J.P., Day, D.V., & Thomas, S.C. (2004). Applicant reactions to selection procedures: An updated model and meta-analysis. *Personnel Psychology, 57(3),* 639-683.

Hayes, A.F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs, 76,* 408-420.

Hayes, A.F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford Press.

Holt, A. (2010). Using telephones for narrative interviewing: A research note. *Qualitative Research, 10,* 113-121.

Humphreys, L. (2005). Cellphones in public: Social interactions in a wireless era. *New Media Society, 7,* 810-833.

Hysong, S.J. & Dipboye, R.L. (1999). Individual differences in applicants' perceptions to employment interview elements. Paper presented at 14th Annual Conference of the Society for Industrial and Organizational Psychology, Atlanta, GA, April 1999.

Janz, T. (1989). The patterned behavior description interview: The best prophet of the future is the past. In Eder, R.W. & Ferris, G.R. (eds.), *The employment interview: Theory, research, and practice* (pp. 169-182). Newbury Park, CA: Sage.

Judge, T.A., Higgins, C.A., & Cable, D.M. (2000). The employment interview: A review of recent research and recommendations for future research. *Human Resource Management Review, 10(4),* 383-406.

Kahneman, D. & Tversky, A. (1973). On the psychology of prediction. *Psychological Review, 80,* 251-273.

Kiewra, K.A. (1989). A review of note-taking: The encoding-storage paradigm and beyond. *Educational Psychology Review, 1,* 147-172.

Kiewra, K. A., DuBois, N. F., Christian, D., McShane, A., Meyerhoffer, M., & Roskelley, D. (1991). Note-taking functions and techniques. *Journal of Educational Psychology*, *83*, 240–245.

Kohn, L. & Dipboye, R.L. (1998). The effects of interview structure on recruiting outcomes. *Journal of Applied Social Psychology, 28,* 821-843.

Kroeck, K.G. & Magnussen, K.O. (1997). Employer and job candidate reactions to videoconference job interviewing. *International Journal of Selection and Assessment, 5,* 137-142.

LaRose, R., Gregg, J.L., Strover, S., Straubhaar, J., & Carpenter, S. (2007). Closing the rural broadband gap: Promoting adoption of the internet in rural America. *Telecommunications Policy, 31,* 359-373.

Latham, G.P. (1989). The reliability, validity, and practicality of the situational interview. In Eder, R.W. & Ferris, G.R. (eds.), *The employment interview: Theory, research, and practice* (pp. 169-182). Newbury Park, CA: Sage.

Latham, G.P. & Finnegan, B.J. (1993). Perceived practicality of unstructured, patterned, and situational interviews. In Schuler, H., Farr, J.L., & Smith, M. (eds.), *Personnel selection and assessment: Individual and organizational perspectives.* Hillsdale, NJ: Erlbaum.

Latham, G.P., Saari, L.M., Purcell, E.D., & Campion, M.A. (1980). The situational interview. *Journal of Applied Psychology, 65,* 422-427.

Latham, G.P. & Wexley, K.N. (1982). *Increasing Productivity through Performance Appraisal.* Reading, MA: Addison-Wesley Publishing Co., 51-55.

Liaw, S. (2002). An internet survey for perceptions of computers and the World Wide Web: Relationship, prediction, and difference. *Computers in Human Behavior, 18*, 17-35.

Little, L., Briggs, P., & Coventry, L. (2005). Public space systems: Designing for privacy. *Human Computer Skills, 63,* 254-268.

Macan, T. H. & Dipboye, R. L. (1994). The effects of the application on processing of information from the employment interview. *Journal of Applied Social Psychology*, *24*, 1291–1314.

Marchese, M.C. & Muchinsky, P.M. (1993). The validity of the employment interview: A meta-analysis. *International Journal of Selection and Assessment, 1*, 18-26.

Mayfield, E.C. (1964). The selection interview: A reevaluation of published research. *Personnel Psychology, 17,* 239-260.

Mehrabian, A. (1981). *Silent Messages* (2nd ed.). Belmont, CA: Wadsworth

Middendorf, C.H. & Macan, T.H. (2002). Note-taking in the employment interview: Effects on recall and judgments. *Journal of Applied Psychology, 87(2),* 293-303.

Moscoso, S. (2000). Selection interview: A review of validity evidence, adverse impact and applicant reactions. *International Journal of Selection and Assessment, 8(4),* 237-247.

Neuberg, S.L. (1989). The goal of forming accurate impressions during social interactions: Attenuating the impact of negative expectancies. *Journal of Personality and Social Psychology, 56,* 374-386.

Parsons, C.K., Liden, R.C., & Bauer, T.N. (2001). Person perception in employment interviews. In London, M. (ed.). *How People Evaluate Others in Organizations* (pp. 67-90). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Pendry, L.F. & Macrae, C.N. (1994). Stereotypes and mental life: The case of the motivated but thwarted tactician. *Journal of Experimental Social Psychology, 30,* 409-420.

Perry, P. M. (1993). Legally speaking: Your most dangerous legal traps when interviewing job applicants. *Editor & Publisher*, *126*(9), 21-23.

Pingatore, R., Dugoni, B.L., Tindale, R.S., & Spring, B. (1994). Bias against overweight job applicants in a simulated employment interview. *Journal of Applied Psychology, 79(6),* 909-917.

Podsakoff, P.M., MacKenzie, S.B., Lee, Y., & Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88(5),* 879-903.

Popovich, P. & Wanous, J.P. (1982). The realistic job preview as a persuasive communication. *Academy of Management Review, 7,* 570-578.

Rand, T.M. & Wexley, K.N. (1975). Demonstration of the effect, "similar to me," in simulated employment interviews. *Psychological Reports, 36,* 535-544.

Rutter, D.R. (1987). *Communicating by Telephone.* Oxford: Pergamon Press.

Ryan, A.M., Daum, D.L., & Friedel, L.A. (1993). *Interviewing behavior: Effects of experience, self-efficacy, attitudes and job-search behavior.* Paper presented at the Annual Conference of the Society for Industrial and Organizational Psychology, San Francisco, CA.

Rynes, S.L., Heneman, H.G., III, & Schwab, D.P. (1980). Individual reactions to organization recruiting: A review. *Personnel Psychology, 33,* 529-542.

Rynes, S.L. & Miller, H.E. (1983). Recruiter and job influences on candidates for employment. *Journal of Applied Psychology, 68*, 147-154.

Schmidt, F.L. & Rader, M. (1999). Exploring the boundary conditions for interview validity: Meta-analytic validity findings for a new interview type. *Personnel Psychology, 29,* 79-101.

Schmit, M.J. & Ryan, A.M. (1992). Test-taking dispositions: A missing link? *Journal of Applied Psychology, 5,* 629-637.

Schmitt, N. (1976). Social and situational determinants of interview decisions: Implications for the employment interview. *Personnel Psychology, 29,* 79-101.

Schmitt, N & Coyle, B.W. (1976). Applicant decisions in the employment interview. *Journal of Applied Psychology, 61(2),* 184-192.

Schuler, H. (1993). Social validity of selection situations: A concept and some empirical results. In Schuler, H., Farr, J.L., & Smith, M. (eds.), *Personnel selection and assessment: Individual and organizational perspectives.* Hillsdale, NJ: Erlbaum, pp. 11-26.

Shaw, J.C., Wild, E., & Colquitt, J.A. (2003). To justify or excuse? A meta-analytic review of the effects of explanations. *Journal of Applied Psychology, 88,* 444-458.

Silvester, J. & Anderson, N. (2003). Technology and discourse: A comparison of face-to-face and telephone employment interviews. *International Journal of Selection and Assessment, 11(2/3),* 206-214.

Silvester, J., Anderson, N., Haddleton, E., Cunningham-Snell, N., & Gibb, A. (2000). A cross-model comparison of telephone and face-to-face interviews in graduate recruitment. *International Journal of Selection and Assessment, 8,* 16-21.

Smither, J.W., Reilly, R.R., Millsap, R.E., Pearlman, K., & Stoffey, R.W. (1993). Applicant reactions to selection procedures. *Personnel Psychology, 46(1),* 49-76.

Stephenson, G.M., Ayling, K., & Rutter, D.R. (1970). Eye-contact, distance, and affiliation: A re-evaluation. *British Journal of Social and Clinical Psychology, 15,* 113-120.

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

Swaroff, P.G., Barclay, L.A., & Bass, A.R. (1985). Recruiting sources: Another look. *Journal of Applied Psychology, 58,* 49-53.

Taylor, M.S. & Bergmann, T.J. (1987). Organizational recruitment activities and applicant's reactions at different stages of the recruitment process. *Personnel Psychology, 20,* 261-285.

Thorndike, E.L. (1920). A constant error in psychological ratings. *Journal of Applied Psychology, 4(1),* 25-29.

Truxillo, D.M., Bauer, T.N., Campion, M.A., & Paronto, M.E. (2002). Selection fairness information and applicant reactions: A longitudinal field study. *Journal of Applied Psychology, 87*, 1020-1031.

Truxillo, D.M., Bodner, T.E., Bertolino, M., Bauer, T.N., & Yonce, C.A. (2009). Effects of

    explanations on applicant reactions: A meta-analytic review. *International Journal of*

    Selection and Assessment, 17, 346-361.

Wagner, R. (1949). The employment interview: A critical review. *Personnel Psychology, 2,* 17-

    46.

Watson, D.,&Clark, L.A. (1994). *The PANAS-X: Manual for the Positive Affect and Negative*

    Affect Schedule–Expanded Form. Cedar Rapids: University of Iowa.

Table 1: *Means, standard deviations, and Pearson product-moment correlations*

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Interview Fairness	13.48	1.78	*0.72*														
2. Interviewer Behaviors	62.37	4.03	0.60**	*0.87*													
3. Affect	9.13	1.32	0.57**	0.68**	*0.88*												
4. Results Knowledge	11.73	2.50	0.54**	0.49**	0.52**	*0.81*											
5. Computer Comfort	76.78	7.36	0.22**	0.26**	0.18**	0.21**	*0.87*										
6. Internal PA	17.69	2.12	0.31**	0.44**	0.32**	0.28**	0.27**	*0.80*									
7. Negative Affect	5.15	2.56	0.00	-0.07	-0.06	0.12*	-0.09	0.04	*0.87*								
8. External PA	13.33	2.01	0.36**	0.43**	0.36**	0.37**	0.09	0.53**	0.12*	*0.78*							
9. Chance to Perform	14.49	3.57	0.35**	0.35**	0.34**	0.38**	0.22**	0.30**	0.11	0.38**	*0.91*						
10. Openness	18.74	1.90	0.36**	0.44**	0.29**	0.22**	0.20**	0.31**	-0.09	0.29**	0.27**	*0.83*					
11. Perception of Notes	7.38	2.18	0.09	0.22**	0.17**	0.06	0.17**	0.11	-0.44**	0.04	-0.06	0.21**	*0.79*				
12. Chances for Offer	83.11	13.74	0.29**	0.20**	0.23**	0.11	0.07	0.14*	0.04	0.17**	0.30**	0.15*	-0.06	---			
13. Intentions to Accept	99.00	5.97	0.03	0.01	-0.02	-0.07	0.11	0.10	-0.06	-0.02	0.12*	0.10	0.04	0.36**	---		
14. Intentions to Reapply	83.10	26.67	0.12*	0.21**	0.19**	0.07	0.12*	0.17**	-0.12**	0.19**	0.11**	0.19**	0.21**	0.16**	0.17**	---	
15. Note-taking Style	1.39	0.49	-0.07	-0.04	-0.05	-0.04	0.26**	0.05	0.05	-0.02	-0.05	0.00	0.03	-0.04	0.09	0.04	---

Note: N= 291. * *p* < .05; ** *p* < .01. Scale reliability coefficients are presented in the diagonal.

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Table 2: *Descriptive Statistics and Tests for Mean Equality by Interview Type*

	Pencil/Paper		Laptop			
	Mean	SD	Mean	SD	*t*-test	Cohen's *d*
Hypothesized Variables						
Interview Fairness	13.59	1.74	13.32	1.84	1.23	0.15
Interviewer Behaviors	62.51	3.94	62.16	4.19	0.74	0.09
Intentions to Accept	98.59	7.53	99.64	1.59	-1.47	-0.18
Intentions to Reapply	82.30	26.9	84.36	26.39	-0.64	-0.08
Other Study Variables						
Comfort with Computers	75.24	7.71	79.18	6.08	-4.60	-0.55
Internal Positive Affect	17.60	2.15	17.82	2.07	-0.87	-0.10
External Positive Affect	13.36	2.01	13.28	2.02	0.31	0.04
Negative Affect	5.06	2.59	5.31	2.52	-0.82	-0.10
Chance to Perform	14.63	3.59	14.27	3.56	0.83	0.10
Openness	18.73	1.97	18.75	1.79	-0.05	-0.01
Perceptions of Notes	7.33	2.30	7.45	1.99	-0.44	-0.05

Note: Pencil/Paper *N*=177; Laptop *N*=114. Internal/External Positive Affect, Negative Affect, and Openness refer to applicant ratings of the interviewers. *T*-test values based on assumed equal variances.

Table 3: *Moderated Regression of Comfort with Computers on Relationship between Note-taking and Interviewer Interpersonal Behaviors*

Variable	b	$SE(b)$	β	R^2	ΔR^2
Step 1				0.083	
Intercept	1.5	0.71	---		
Comfort with Computers	0.16	0.03	0.30**		
Note-taking style	-1.00	0.48	-0.12*		
Step 2				0.084	0.001
Intercept	1.54	0.71	---		
Comfort with Computers	0.11	0.10	0.20		
Note-taking style	-1.05	0.49	-0.13*		
Interaction term	0.04	0.07	0.10		

Note: Step 1 Total $F(2, 288) = 13.05$**; Step 2 Total $F(3, 287) = 8.78$**; Adjusted $R^2 = .077$; *$p < .05$, **$p < .01$.

Table 4: *Descriptive Statistics and Tests for Mean Equality by Explanation Variable*

	Explanation		No Explanation			
	Mean	SD	Mean	SD	*t*-test	Cohen's *d*
Hypothesized Variables						
Interview Fairness	13.38	1.87	13.23	1.79	0.42	0.08
Interviewer Behaviors	62.18	4.27	62.13	4.09	0.06	0.01
Intentions to Accept	99.78	1.00	99.38	2.32	1.31	0.25
Intentions to Reapply	83.54	29.57	85.88	19.41	-0.45	-0.09
Other Study Variables						
Comfort with Computers	80.00	5.51	77.65	6.82	2.00	0.38
Internal Positive Affect	17.99	2.02	17.53	2.15	1.14	0.22
External Positive Affect	13.27	2.02	13.30	2.04	-0.08	-0.02
Negative Affect	5.10	2.04	5.68	3.22	-1.15	-0.22
Chance to Perform	14.38	3.68	14.08	3.35	0.43	0.08
Openness	18.72	1.82	18.80	1.74	-0.24	-0.05
Perceptions of Notes	7.47	1.98	7.40	2.02	0.19	0.04

Note: Laptop N =114; Explanation N=74; No Explanation N=40. Internal/External Positive Affect, Negative Affect, and Openness refer to applicant ratings of the interviewers. *T*-test values based on assumed equal variances. *Only Comfort with Computers elicited a significant *t* value., $p < .05$

Table 5: *Pearson product-moment correlations by Note-taking Style*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Interview Fairness	---	0.58**	0.56**	0.47**	0.24**	0.33**	-0.05	0.30**	0.29**	0.30**	0.05	0.22**	0.02	0.07
2. Interviewer Behaviors	0.63**	---	0.68**	0.45**	0.30**	0.48**	-0.11	0.37**	0.31**	0.37**	0.16*	0.06	-0.03	0.18*
3. Affect	0.58**	0.68**	---	0.47**	0.24**	0.36**	-0.13	0.30**	0.34**	0.26**	0.11	0.17*	-0.02	0.16*
4. Results Knowledge	0.65**	0.55**	0.58**	---	0.21**	0.28**	0.11	0.34**	0.39**	0.14	-0.01	0.00	-0.11	0.06
5. Computer Comfort	0.26**	0.28**	0.15	0.25**	---	0.24**	-0.11	0.09	0.18*	0.22**	0.14	0.05	0.10	0.09
6. Internal PA	0.29**	0.38**	0.28**	0.28**	0.34**	---	-0.03	0.50**	0.30**	0.31**	0.08	0.13	0.11	0.26**
7. Negative Affect	0.09	0.01	0.02	0.13	-0.10	0.16	---	0.10	0.07	-0.13	-0.41**	-0.02	-0.06	-0.14
8. External PA	0.44**	0.51**	0.44**	0.41**	0.13	0.58**	0.16	---	0.36**	0.22**	-0.02	0.08	-0.04	0.19*
9. Chance to Perform	0.45**	0.41**	0.33**	0.36**	0.37**	0.32**	0.16	0.42**	---	0.23**	-0.11	0.29**	0.16*	0.07
10. Openness	0.47**	0.55**	0.34**	0.36**	0.17	0.30**	-0.02	0.40**	0.34**	---	0.16*	0.07	0.11	0.15
11. Perception of Notes	0.16	0.34**	0.26**	0.19*	0.23*	0.14	-0.49**	0.15	0.03	0.33**	---	-0.10	0.03	0.13
12. Chances for Offer	0.37**	0.39**	0.29**	0.25**	0.15	0.17*	0.12	0.28**	0.30**	0.28**	0.03	---	0.50**	0.11
13. Intentions to Accept	0.23*	0.30**	0.02	0.18*	0.08	0.05	-0.12	0.16	0.09	0.18	0.15	0.00	---	0.19*
14. Intentions to Reapply	0.19*	0.25**	0.22*	0.08	0.17	0.02	-0.09	0.19*	0.19*	0.25**	0.38**	0.24*	0.21*	---

Note: Laptop coefficients are in the lower diagonal; Pencil Paper coefficients are in the upper diagonal. Laptop N=114; Pencil/Paper N=177.
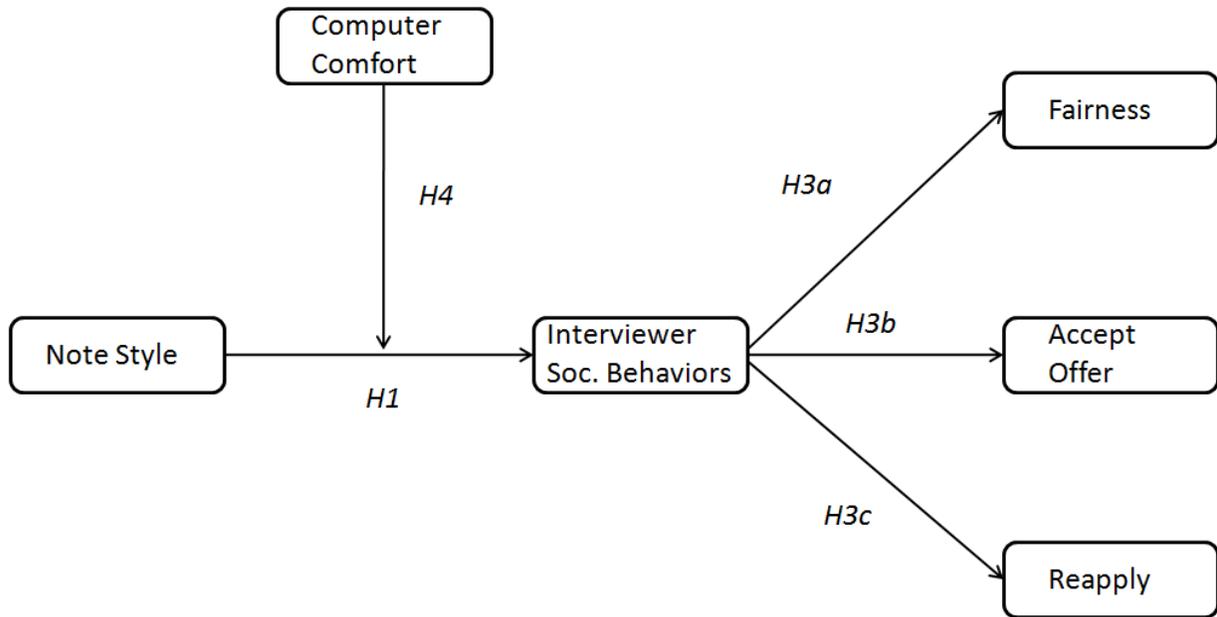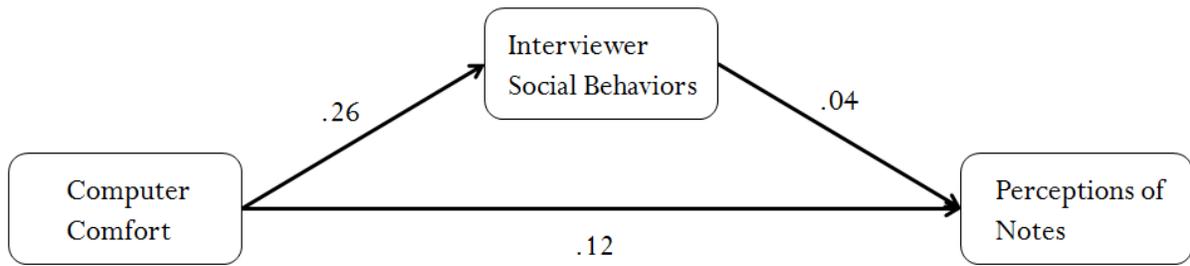* p < .05; ** p < .01.

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Figure 1. *Proposed Mediated-Moderation Model*

Pencil-and-Paper Notes

Computer Comfort → Interviewer Social Behaviors: .26

Interviewer Social Behaviors → Perceptions of Notes: .04

Computer Comfort → Perceptions of Notes: .12

Computerized Notes

Computer Comfort → Interviewer Social Behaviors: .32

Interviewer Social Behaviors → Perceptions of Notes: .10
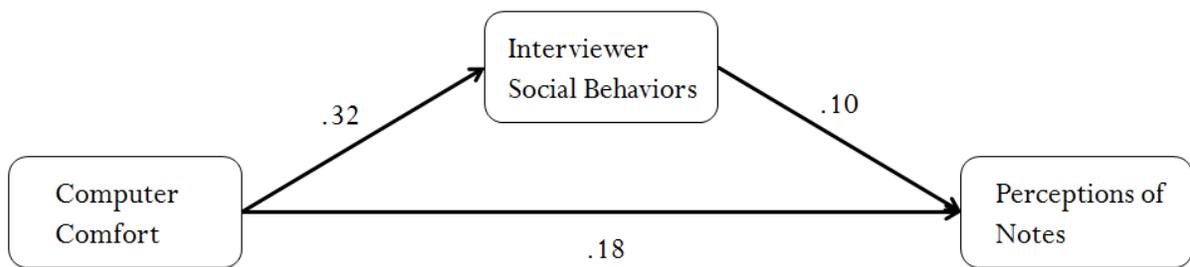
Computer Comfort → Perceptions of Notes: .18

Figure 2. *Full Moderated Mediation Models*

SAMPLE LEADERSHIP SAFARI INTERVIEW SCHEDULE

Interview Questions New Guide

1. What sparked your interest to become a guide?

2. What would you like to gain personally through your experience as a Safari guide?

3. What do you feel CMU as a whole gains form Safari?

4. What traits and qualities does a person with "good character" have?

5. What does it mean to work as a team? (This can include positive and negative experiences).

6. When working with a team, what would you consider your strengths? Areas of challenge?

POST-INTERVIEW QUESTIONNAIRE ITEMS

Interviewer Interpersonal Effectiveness

Selection Procedural Justice Scale (SPJS) from Bauer et al. (2001)

Items based on 5 point (Strongly Disagree – Strongly Agree) scale

Treatment

- I was treated politely during the interviewing process

- The interviewers were considerate during the interview

- The interviewers treated applicants with respect during today's interview

- The interviewers put me at ease during the interview

- I was satisfied with my treatment during the interviewing process

Two-way Communication

- There was enough communication during the interview

- I was able to ask questions about the interview

- I am satisfied with the communication that occurred during the interviewing process

- I would have felt comfortable asking questions about the interview if I had any

- I was comfortable with the idea of expressing my concerns during the interviewing process

- *I had the opportunity to answer each interview question completely*

- *The interviewers made adequate eye contact during the interview*

- *The interviewers' non-verbal communication skills were adequate*

Perceived Fairness

Applicant Reactions Scale from Smither et al. (1993).

Items based on 5-point (Strongly Agree – Strongly Disagree) scale

Procedural Justice

- Overall, I believe that the interview was fair

- I deserved the results I received on the interview

- The interview fairly reflected my ability to do the job

Computer Attitudes Scale (CAS) _for interviewers_; adapted from Liaw (2002).

1 (Strongly disagree) to 7 (Strongly Agree) Scale

- I feel comfortable using a personal computer during an interview

- I feel comfortable using word processors (e.g. Microsoft Word) during an interview

- I feel confident learning new computer skills

- I like to use computers when I work

- I am comfortable talking with others while using a computer

- I feel comfortable using a computer in my daily life

- I believe using a computer is necessary in my school life

- I believe using computers during interviews is worthwhile

- I use computers in multiple ways (e.g. creating word documents, using e-mail, web surfing, etc.) in my daily life

- An increased use of computers during interviews can enhance my performance

- The use of computers is helpful for my studying

- The use of computers can increase my job possibilities

- I believe that computers can serve as tools for learning

- I believe that knowing how to use computers is worthwhile

Computer Attitudes Scale (CAS) <u>for applicants</u>; adapted from Liaw (2002).

1 (Strongly disagree) to 7 (Strongly Agree) Scale

- I feel comfortable in the presence of a personal computer during an interview

- I feel comfortable using word processors (e.g. Microsoft Word)

- I feel comfortable learning new computer skills

- I like to use computers when I work

- I am comfortable talking to someone who is using a computer

- I feel comfortable using a computer in my daily life

- I believe using a computer is necessary in my school life

- I believe using computers during interviews is worthwhile

- I use computers in multiple ways (e.g. creating word documents, using e-mail, web surfing, etc.) in my daily life

- An increased use of computers during an interview can enhance a worker's performance

- The use of computers is helpful for my studying

- The use of computers can increase my job possibilities

- I believe that computers can serve as tools for learning

- I believe that knowing how to use computers is worthwhile

Intentions to Accept/Reapply; adapted from Powell (1984).

Participants respond from 0% to 100%

- From what you know now, how would you rate your chances for a job offer from this organization?

- Given how you feel now, what are the chances that you would accept an offer if one was made to you by this organization

- Given how you feel now, what are the chances that you would reapply in the future if an offer was not made to you by this organization?

Interviewer Affectivity

Indicate to what extent the interviewer displayed the following traits during your interview (5-point scale)

- Alert; attentive; concentrating; determined

- Active; enthusiastic; excited; interested

- Nervous; jittery; irritable; hostile

Previous Work Experience

- How many jobs have you previously held?

- How many employment interviews have you participated in?

Perceptions of Notes Taken

Items based on 5 point (Strongly Disagree – Strongly Agree) scale

- The interviewers did not take enough notes to make adequate ratings of my performance

- The amount of notes taken by the interviewers were sufficient

- The notes regarding my responses taken by the interviewer are accurate

Manipulation Checks

- Did the interviewers take notes via paper and pencil or laptop?

- Did the interviewers explain to you how they would be taking notes?

Demographics

- Age

- Gender

- Ethnicity

- Position applying for

EXPLORATORY ITEMS:

Selection Procedural Justice Scale (SPJS) from Bauer et al. (2001)

Items based on 5 point (Strongly Disagree – Strongly Agree) scale

Chance to Perform

- I could really show my skills and abilities through this interview

- This interview allowed me to show what my job skills are

- This interview gives applicants the opportunity to show what they can really do

- I was able to show what I can do in this interview

Openness

- I was treated honestly and openly during the interviewing process

- Interviewers were candid when answering questions during the interview

- Interviewers answered procedural questions in a straightforward and sincere manner

- Interviewers did not try to hide anything from me during the interview

Applicant Reactions Scale from Smither et al. (1993).

Items based on 5-point (Strongly Agree – Strongly Disagree) scale

Affect

- I enjoyed the interview to a great degree

- I would look forward to going through the same type of interview again in the future

Perceived Knowledge of Results

- After I finished the interview it was clear to me how well I performed

- I knew exactly on what aspects of the interview I performed well and poorly

- Anyone who went through the interview would know clearly how well or how poorly

  they did

Recommendation

- Based on my experience with the interviewing process, I would encourage others to apply

  to work for Leadership Safari