PRACTITIONER RESISTANCE TO STRUCTURED INTERVIEWS: A COMPARISON OF TWO MODELS

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ABSTRACT

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Despite the superior reliability and validity of structured interviews over unstructured interviews for selecting employees, human resource (HR) practitioners' resistance to structured interviews is a documented phenomenon in organizational research. Research examining theoretical models of reasons for this resistance, however, are limited (Dipboye, 1994, 1997; van der Zee, Bakker, & Bakker, 2002). Using a sample of 227 Amazon's Mechanical Turk (MTurk) workers with previous hiring experience in their current organizations, the current study compares the ability of the theory of planned behavior (Ajzen, 1991) and the technology acceptance model (Davis, 1986; Davis et al. 1989), to explain resistance to using structured interviews for employee selection. Results of structural equation modeling using robust maximum likelihood estimation found the technology acceptance model to be a better explanation for the data compared to the partially supported theory of planned behavior. Both the theory of planned behavior and the technology acceptance model predicted roughly the same amount of variance in structured interview use behavior, 42% and 40% respectively. Implications as well as both theories ability to stimulate further research on acceptance of structured interviews for employee selection, and inform the development of strategies to overcome this resistance is discussed.

Dedicated to my partner, family, and academic advisor for their continual support.

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INTRODUCTION

The primary purpose of employee selection is to assess applicants and identify those who are likely to succeed on the job (Farr & Tippins, 2010; Robertson & Smith, 2001). According to the Principles for the Validation and Use of Personnel Selection Procedures, validity is the most important aspect to consider when choosing selection instruments (Society for Industrial and Organizational Psychology, 2003), because the validity of a selection tool is the key indicator of how well that tool can accurately predict future job performance. In other words, validity is the degree to which a specific use of a tool is supported by evidence and theory (American Educational Research Association, American Psychological Association, & National Council for Measurement in Education, 1999). Despite the importance of validity, however, human resource (HR) practitioners continue to resist using structured and valid selection tools (Harris, Dworkin, & Park, 1990; König, Klehe, Berchtold, & Kleinmann, 2010; Lodato, Highhouse, & Brooks, 2011). Terpstra and Rozell (1993) surveyed HR practitioners from organizations of at least 200 employees about the use of five evidence-based selection procedures within their organizations: validation studies, structured interviews, cognitive tests, weighted application blanks, and recruiting studies (i.e., studies that track the success of various recruiting sources at attracting quality applicants for an organization). They found that these tools were used by between 17% (for weighted application blanks) and 48% (for recruiting studies) of the organizations. This resistance to valid selection techniques has also been shown for other selection tools (e.g., structured interviews).

Throughout the literature, one of the most heavily documented trends in selection is HR practitioners' resistance to structuring interviews (Highhouse, Brooks, Nesnidol, & Sim, 2017; Lievens & Paepe, 2004; Ryan, McFarland, Baron, & Page, 1999; Terpstra & Rozell, 1993).

Although many have tried to explain the reasons behind this resistance (Bruchmüller, Margraf, Suppiger, & Schneider, 2011; Dipboye, 1994, 1997; Garris & Elder, 1999; Lievens & Paepe, 2004), a comprehensive theory of resistance remains elusive (Dipboye, 1994, 1997; van der Zee, Bakker, & Bakker, 2002). The current study seeks to expand upon this research by comparing the ability of two theories, the theory of planned behavior (Ajzen, 1991) and the technology acceptance model (Davis, 1986; Davis et al. 1989), to explain resistance to using structured interviews among selection personnel.

Definitions and Classifications of Interview Structure

Campion, Palmer, and Campion (1997) broadly defined interview structure as any element that is meant to "increase psychometric properties by increasing standardization or otherwise assisting the interviewer in determining what questions to ask or how to evaluate responses" (p. 656). Similarly, Huffcutt and Arthur (1994) defined structure as anything that reduces procedural variance across applicants, or the degree of discretion an interviewer can exert during the interview processes. Terpsta and Rozell (1997), in contrast, took a more specific approach by defining structured interviews as those that include, (1) using interview questions based on the results of a job analysis, (2) systematically scoring applicants responses to questions, and (3) asking all applicants the same questions in the same order. Common to all of these definitions is an increase in uniformity of the interview experience--from the topics or questions discussed to how responses are scored. Unstructured interviews, in contrast, are interviews lacking these elements.

As suggested by the previous definitions, there is more than one way to structure an interview. In fact, structure is more accurately thought of as a continuum, not a dichotomy (e.g.,

Huffcutt & Arthur, 1994). Structured aspects of interviews (i.e., questions and scoring) can vary in terms of the degree to which they are structured.

Previous research has proposed several different classification systems for interview structure. One often cited conceptualization is the two degrees of structure proposed by Huffcutt and Arthur (1994): standardization of response scoring and standardization of the questions asked. Huffcutt and Arthur further separate structure into four levels of question standardization and three levels of scoring standardization (see Table 1). These two aspects are then crossed to create a two-dimensional model of interview structure, with four levels, which range from Level 1 (completely-unstructured) to Level 4 (fully-structured) interviews.

Campion et al. (1997) similarly grouped aspects of structure into two broad categories: those that structure interview content (i.e., questions) and those that structure the evaluation process (i.e., scoring). They then further separated these broad categories into 15 different interview aspects which can be structured. These 15 aspects include, content aspects, such as basing interview questions on a job analysis and asking the same questions across all applicants, as well as evaluation aspects, including, rating applicants' responses to each question and using the same interviewers across applicants.

Huffcutt and Arthur's (1994) and Campion et al.'s (1997) conceptualizations of structure both share the notion that interview structure can be increased (along a continuum) by increasing uniformity and rigor to aspects of the interview content and/or the scoring process. Chapman and Zweig (2005) went further by examining the factor structure of interview practices, applicants corresponding reactions, and the nomological network of interview structure. They found that interview structure was best described by four dimensions: question consistency, evaluation standardization, question sophistication, and rapport building. Question consistency is the extent

to which all applicants received the same questions in the same order. Evaluation standardization is the extent to which standardized scoring procedures are used. Question sophistication is the extent to which an interview used question formats known to be more valid (e.g., job-related situation or behavioral questions). Finally, rapport building (a factor that indicates low structure) is the extent to which the interview allows the interviewer to build rapport with the applicant, which was positively associated with interviewer reactions to the interview.

Benefits of structure. Regardless of the specific types of structure, multiple meta-analyses have demonstrated that structured interviews have greater reliability and criterion-related validity than unstructured interviews (Conway, Jako, & Goodman, 1995; Huffcutt & Arthur, 1994; Huffcut, Culbertson, & Weyhrauch, 2014; Marchese & Muchinsky, 1993; McDaniel, Whetzel, Schmidt, & Maurer, 1994; Wiesner & Cronshaw, 1988). Reliability and validity also increase as the degree of structure increases (Huffcutt et al., 2014; Huffcutt & Arthur, 1994). Specifically, a recent meta-analysis by Huffcutt et al. (2014) found that fully structured interviews had an operational validity of .70 compared to the least structured interview (operational validity of .20). Other benefits of structured interviews include increased legal defensibility (Williamson, Campion, Malos, Roehling, & Campion, 1997), and decreased likelihood of adverse impact against ethnic minority (Huffcutt & Roth, 1997) as well as, handicapped, female, and older applicants (Arvey & Faley, 1988). Additionally, a study by McCarthy, Iddekinge, and Campion (2010), found that highly structured interviews were more resistant to demographic similarity effects (e.g., white interviewers being more likely to select a white applicant). This may be due to the substantial amount of structure allowing for less influence of the rater on applicant scores. Despite these benefits however, selection personnel are still resistant to using structured interviews.

Use of interview structure. Multiple studies have shown HR practitioners to be less willing to use structured interviews (Highhouse et al., 2017; Lievens & Paepe, 2004; Ryan et al., 1999; Terpstra & Rozell, 1993). In fact, practitioners use of structured interviews appears to be negatively correlated with how heavily the interview is structured. Lievens and Paepe (2004) found that only 58% of HR practitioners utilized a predetermined list of topic areas (i.e., leadership experience, job-related training) for interview questions. This is a relatively limited amount of structure. Using only this structure element, allows interviewers to ask different questions across applicants, and in no way structures response scoring. A more heavily structured version of an interview would be one that uses a fixed list of questions for all applicants for the same job. Ryan, McFarland, Baron, and Page (1999), however, found fixed question lists were used by only 36% of U.S. firms. In comparison, Lievens and Paepe (2004) found that only 3% of companies used fully structured interviews (in terms of both question and scoring structure). Unstructured interviews, however, are commonly used. In their 1990 survey of organizational selection procedures, Harris et al. found unstructured interviews to be the second most commonly used selection tool (used by 88% of organizations and second only to reference checks) of the 14 techniques they examined. Thus, it appears that the more structured an interview is, the less likely it is to be used within organizations. Additionally, a study by Lathan and Saari (1984), suggests that even when highly structured interviews are used, they tend to become less structured over time.

Due to the prevalence of unstructured interviews used in selection, and the substantial benefits organizations stand to gain by switching to structured interviews, it is of paramount importance for researchers to gain a better understanding of continued practitioner resistance to structured interviews. Increased understanding of resistance to interview structure would allow

researchers and industrial-organizational practitioners to develop strategies to overcome this resistance and thereby increase the overall reliability and validity of many organizational selection procedures.

Reasons for Resistance to Valid Selection Tools

Past research has proposed a variety of reasons why many organizational HR practitioners continue to resist valid selection tools. Shrivastava and Mitroff (1984) suggest that, although researchers pride themselves on analytical thinking and using objective data, practitioners favor subjective, experiential data, intuitive thinking, and "gut feelings." In contrast, Terpstra and Rozell (1997) argued that the lack of HR practitioner enthusiasm toward valid tools may have more to do with a lack of awareness about the tool, resource constraints, legal concerns, or the tool not fitting with the image an organization wants to portray to applicants. Rynes (2012) suggested that resistance stems from: (1) people being unaware of relevant scientific findings, (2) people choosing not to believe relevant scientific findings, even if aware of them, or (3) even if they believe the relevant scientific findings, people choose not to implement them. Additional research has supported many of the above claims. Harris et al. (1990) found that beliefs about a tool's validity, diffusion (i.e., how many other organizations use the tool), perceived offensiveness to applicants, and ease of passing the test were all significantly correlated with HR managers' willingness to use structured and valid selection techniques. In fact, Rynes, Colbert, and Brown (2002), found several discrepancies between HR practitioners' beliefs and prevalent research findings. In a sample of nearly 1000 HR professionals, Rynes et al. (2002), found that HR managers did not believe that intelligence out predicts conscientiousness and values in terms of performance, that intelligence is a valuable predictor of performance even for low-skilled jobs, or that most errors in performance appraisals

cannot be eliminated by error reduction training. Thus, there are many aspects of employee selection where HR practitioners' beliefs are not aligned with research. A recent paper by Rynes, Colbert, and O'Boyle (2018) summarizes a growing body of evidence that even when people are aware of research findings that contradict their current practices, they often choose not to believe them. One reason for this is that humans tend to practice "motivated reasoning" where they seek out information that supports their opinions or judgments and selectively ignore evidence that contradicts their deeper underlying values, self-identities, interests, and worldviews. In essence, people try to rationally justify their emotional judgements by closing themselves off from contradictory evidence. Therefore, getting hiring managers to align their hiring practices with best practices supported by research is not as simple as presenting them with peer-reviewed, well-conducted research. Instead, a more comprehensive model of factors leading to practitioners hiring decisions is needed.

In addition to these practitioner beliefs, König et al. (2010), used institutional theory to posit situational aspects likely to influence the use of valid selection techniques. The authors found that potential for negative applicant reactions, cost of the tool, and diffusion appeared most closely related to HR practitioners' decisions. Smaller, but still significant odds ratios were found for the tool's predictive validity, perceived legality, and ability to be used for organizational self-promotion. Thus, there appears to be a wide variety of factors, from personal beliefs to situational constraints, that influence practitioners' decisions regarding selection tools.

Reasons for structured interview resistance. Specific to structured interviews, Dipboye (1994, 1997) developed a model of factors likely to contribute to the underuse of highly structured interviews. This model distinguished between organization-related factors (e.g., organizational procedural and distributive justice norms) and interviewer-related factors (e.g.,

personal needs of the interviewer for discretion and control). One reason for HR practitioners' preference for unstructured interviews, according to Dipboye, is that unstructured interviews are better able to satisfy the needs of the interviewer, by enabling the interviewer to express discretion over the questions asked and ratings of applicants. This is in stark contrast to the highly-structured interview, which relegates the interviewer to passive observer with little discretion over the process or outcome. Other researchers have echoed this idea that the needs and desires of the interviewer contribute to resistance of structured interviews (Harris & Elber, 1999; Highhouse, 2008; Lievens & Paepe, 2004). Specifically, interviewers' concerns over their ability to exercise discretion during the interview is negatively related to structured interview use (Lievens and Paepe, 2004; Nolan & Highhouse, 2014). In a series of two experiments conducted by Nolan and Highhouse (2014), decision makers were found to perceive both the structured interview and the mechanical (i.e., data driven) approach to calculating final scores as having less potential for autonomy compared to unstructured interviews and intuition-based scoring. Their findings also suggested that this lack of perceived autonomy significantly impacted decision makers' intentions to use structured interviews and mechanical scoring procedures.

Lodato et al. (2008) also found support for the influence of personal and situational characteristics on preferences for intuition-based (i.e., unstructured and unproven) hiring practices. In a sample of over 200 HR managers the authors found that HR professionals who favor experiential thinking (i.e., tend to make decisions based on feelings), did not hold advanced professional certifications, were less experienced, and worked for a smaller organization were less likely to favor evidence-based practices, such as the structured interview.

In addition to organizational factors and interviewer needs and experience, beliefs held by the interviewer have also been suggested as reasons for structured interview resistance. Diab,

Pui, Yankelevich, and Highhouse (2011), found that perceptions of lay people from both within and outside of the United States perceived holistic judgements about the candidate's performance to be superior to mechanical integration for creating final interview scores. Highhouse (2008) suggested that these trends are due to HR practitioners falsely believing that is it possible to perfectly predict future performance, and that practitioners themselves believe that they can outperform the structured interview. This is despite multiple studies showing that "expertise" or "experience" does not lead to better intuitive predictions (Camerer & Johnson, 1991; Dawes et al., 1989; Grove et al., 2000). In fact, the underestimation of structured interviews' ability to make accurate predictions has even been found in clinical settings (Bruchmüller, Margraf, Suppiger, & Schneider, 2011).

Additional interviewer beliefs thought to negatively impact structured interview use include, beliefs that structured interviews may harm interviewers' ability to recruit quality applicants (Dipboye, 1997; Rynes, 1989), are incongruent with organizational culture and values (Kossek, 1989), require a large amount of time and money to implement (Lievens & Paepe, 2004; Terpstra & Rozell, 1997), and lessen the interviewer's ability to assess an applicant's organizational fit (Lievens & Paepe, 2004). Some of these beliefs about interviews are backed by research. Structured interviews tend to take more time and resources to develop (Huffcutt & Woehr, 1999). This may result in some practitioners concluding that the benefits of structured interviewing are not worth the organizational resources needed to implement them. Other beliefs, however, have been negated by past research. A meta-analysis by Huffcutt, Conway, Roth, and Stone (2001) found that person-organization fit is often measured in highly-structured interviews. Thus, it is unreasonable to prefer an unstructured interview to assess organizational fit.

Multiple researchers have suggested that negative applicant reactions to selection procedures may cause premature withdrawal from the selection process, decreased attractiveness of the organization, and rejection of job offers (Chapman et al., 2003; Gilliland, 1993; Smither, Reilly, Millsap, Pearlman, & Stoffey, 1993; Truxillo, Bauer, Campion, & Paronto, 2002). The relation between interview structure and negative applicant reactions, however, has been largely exaggerated. Chapman and Zweig (2005) found that, although applicants reacted negatively to the increased perceived difficulty of the structured interviews, their perceptions of the procedural justice of the interview process were not affected. Thus, applicants still believed that the interview process was fair when structured. Additionally, Rynes (1989) found that applicants who experienced a combined recruitment and selection interview (i.e., one with standard questions, but also allowed for emphasizing different aspects of the organizations attractiveness according to the applicant) reacted more favorably than those who received only the recruitment portion of the interview.

Theoretical Frameworks of Resistance

Despite these findings and the ability of structured interviews to more accurately identify quality candidates, structured interviews are still underutilized by practitioners, and research on the ability of theory to explain this resistance is limited (Dipboye, 1994, 1997; van der Zee et al., 2002). A notable exception to this is van der Zee et al.'s (2002) study, which examined the ability of the theory of planned behavior (Ajzen, 1991) to explain intent to use structured interviews for personnel selection.

The theory of planned behavior is an extension of the theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). It posits that a person's intentions are good predictors of their future behaviors, and that these intentions are an outcome of three factors: attitudes

toward the behavior, subjective norms, and perceived behavioral control (See Figure 1). Attitude refers to the extent to which a person has a favorable or unfavorable evaluation of a given behavior. In the context of interviews, this would be the extent to which a person has either a positive or negative opinion of structured or unstructured interviews. Subjective norm refers to the perceived pressure a person feels to preform (or not preform) a certain behavior. For example, if an organization has a long history of using highly unstructured interviews for selection, a hiring manager may feel pressured to continue to use unstructured interviews, even if they would prefer to use another selection tool, and technically have the power to make that change. In essence, a subjective norm is what a person perceives as being expected of them by the people around them. Finally, perceived behavioral control refers to how difficult a person perceives it would be to perform a certain behavior. According to Ajzen (1991) the level of perceived behavioral control a person feels is a result of both past experience and anticipated obstacles. For structured interviews, a HR practitioner may perceive low behavioral control if they have previously been unable to convince their manager to implement a structured interview or feel that implementing a structured interview would require too many resources to develop and implement. Additionally, according to Ajzen (1991), behavioral control is a combination of internal control factors (e.g., does the person possess the skills necessary to take an action) and external factors (i.e., are the needed resources in terms of time, money, and outside support to implement a change accessible).

According to the theory of planned behavior, a person's intention to perform a behavior is the result of three intercorrelated factors: (1) the person's attitude toward the behavior, (2) the subjective norm of their environment, and (3) the amount of control they perceived themselves as having to perform that behavior. This intention then influences whether or not the behavior is

performed. An important caveat is that the relative importance of attitude, subjective norm, and perceived behavioral control on intentions is expected to vary across various situations and behaviors (Ajzen & Fishbein, 1980). Thus, it is hard to determine, without scientific investigation, which of the three factors are the most influential in a given situation, such as people's use of structured interviews to assess job applicants.

In addition to the influence of attitude, subjective norm, and perceived behavioral control on behavior through intentions, the theory of planned behavior also posits that perceived behavioral control can directly impact behavior. Specifically, regardless of how positive a person attitudes are toward a behavior, or the social pressure they may feel to perform a behavior, the behavior will not take place if the person feels they are unable to perform that behavior.

The original theory of planned behavior article by Ajzen (1991) has been cited over sixty thousand times. This is due in part to the ability of the theory to be applied to many situations. Recent articles have used the theory of planned behavior as a framework to predict a wide variety of human behavior: including, breastfeeding (Guo, Wang, Liao, & Huang, 2016), safe sex (Eggers, Taylor, Sathiparsad, Bos, & de Vries, 2015), physical activity (Stolte, Hopman-Rock, Aartsen, van Tilburg, & Chorus, 2017), recycling (Botetzagias, Dima, & Malesios, 2015), selfie-posting (Kim, Lee, Sung, & Choi, 2016), and college students' graduation intentions (Sutter & Paulson, 2017). Within I-O psychology, the theory of planned behavior has been used to predict everything from counterproductive work behavior (Fox & Spector, 2010) and cyberloafing (Askew et al., 2014) to faking during selection tests (Dürr & Klehe, 2018) and intentions to use structured and unstructured interviews (van der Zee et al., 2002).

In one study examining the ability of the theory of planned behavior to explain intent to use structured and unstructured interviews among 79 HR managers, van der Zee et al. (2002)

found, in alignment with previous research, that HR managers preferred unstructured interviewing and that this was consistent with their own current employee selection practices. Specific to the theory of planned behavior, van der Zee et al. (2002), found support for the model to predict intentions to use both structured and unstructured interviews. Using path analyses, attitudes and subjective norms were found to be significant independent predictors of intentions to use both structured or unstructured interviews. Perceived behavioral control, however, only significantly contributed to intentions to use structured interviews. Attitudes, however, were the most influential factor in intention to use structured interviews (r = .63) compared to subjective norms (r = .54) and perceived behavioral control (r = .30). Together these three predictors explained 50% of the variance in intentions to use highly-structured interviews. The authors were unable to fully examine the model, however, as their limited sample size did not allow them to test the indirect effects of attitudes, subjective norms, and perceived behavioral control on actual behavior (i.e., use of structured and unstructured interviews). Independent analyses, however, found no significant relation between HR managers' intentions and actual interview behavior. Instead, other theories may provide a better framework for understanding intentions to use structured interviews.

Therefore, one goal of the current study seeks to replicate and expand upon the work of van der Zee et al. (2002) by testing the ability of the theory of planned behavior to predict intentions to use structured interview as well as actual structured interview use among a larger sample of people with employee selection experience. Therefore, in accordance with the theory and previous research described above, I predict the following:

> *Hypothesis 1:* Attitude, subjective norms, and perceived behavioral control regarding structured interview use will be significantly intercorrelated.

Hypothesis 2: Self-reported attitudes toward structured interviews will significantly predict intentions to use structured interviews.

Hypothesis 3: Subjective norm surrounding (i.e. perceived pressure to use or not use) structured interviews will significantly predict intention to use structured interviews.

Hypothesis 4: Perceived behavioral control over using structured interviews will significantly predict intention to use structured interviews.

Hypothesis 5: Perceived behavioral control over using structured interviews will significantly predict actual structured interview use.

Hypothesis 6: Intention to use structured interviews will significantly predict structured interview use.

Although van der Zee et al. (2002) was the first to examine the theory of planned behavior as a model to predict structured interview use, alternative models have not been considered. The technology acceptance model is a theory commonly used to explain acceptance of technological advancements such as software applications (Davis, 1986) which may require training or retooling to utilize properly. As structured interviews are a type of technological advancement over unstructured interviews, the technology acceptance model may be helpful in creating a unified explanation for structured interview resistance.

Technology acceptance model. The technology acceptance model (Davis 1989; Davis et al. 1989) is the most widely used model of user acceptance and usage of technology. Similar to the theory of planned behavior (Ajzen, 1991) the technology acceptance model was originally based on the theory of reasoned action (Fishbein & Ajzen, 1975), however, parallels can also be drawn between the technology acceptance model and expectancy theory (Vroom, 1964).

According to the original technology acceptance model (Davis 1989; Davis et al., 1989; see Figure 2), external variables, such as time and other resources influence two factors: the perceived ease of using a technology and the technology's perceived usefulness. Perceived ease of use is the extent to which the technology is easy to learn and implement. Perceived usefulness, in comparison, is directly focused on the efficacy of the technology to complete desired tasks and/or achieve desired outcomes. In the original technology acceptance model, perceived ease of use is thought to influence perceived usefulness; in addition, perceived usefulness and perceived ease of use both directly impact a person's attitude toward using a given technology. In sum, the technology acceptance model posits that a person's attitude toward a technology is a result of how easily the technology is able to be used to achieve desired outcomes. This is different from the theory of planned behavior which suggests that attitudes are a result of general impressions (positive and negative) about performing a given behavior. In the technology acceptance model this more focused attitude, and the perceived usefulness of the technology, then directly influences a person's intention to use the technology, which in turn impacts actual technology use.

The technology acceptance model has received vast empirical support (Adams, Nelson, & Todd, 1992; Chin & Gopal, 1993; Davis & Venkatesh, 1996; Gefen & Straub, 1997; Igbaria, Zinatelli, Cragg, & Cavaye, 1997; Legris, Ingham, & Collerette, 2003; Mathieson, 1991; Subramanian, 1994; Szajna, 1994, 1996; Venkatesh & Davis, 1996; Venkatesh & Morris, 2000) suggesting that it presents a robust explanation of technology acceptance across time, populations, settings, and types of technology. Research has also found support for a simplified version of the technology acceptance model (Szajna, 1996; see Figure 3). According to Szajna (1996; which has been cited over 2000 times according to Google Scholar) the technology

acceptance model can be simplified such that the perceived ease of using a given technology directly impacts the perceived usefulness of the technology. In essence, intention to use a technology is the result of how easy a technology is perceived to be to learn and implement, which directly influences how useful a technology is perceived to be for achieving the desired task or outcome. These intentions toward using the technology then impact actual technology use.

Thus, in the context of the revised technology acceptance model, we would expect that the easier to use people perceive implementing and learning to use structured interviews to be the more useful they will believe structured interviews to be for screening applicants and identifying employees likely to perform well on the job. In turn, the more useful structured interviews are perceived to be for selecting employees, the more likely people are to intend to use them, and in turn, use them for assessing job applicants.

Pervious research as also pointed out similarities between the technology acceptance model and aspects of expectancy theory (Dingel & Spiekermann, 2007). Expectancy theory posits that people invest time and effort into things according to expected outcomes of a given behavior. Although there are a number of expectancy-valance theories, as their core, they all posit that people choose between different behavioral alternatives (e.g., using structured or unstructured interviews) based on the anticipated impact of these behaviors on resulting outcomes. Not all outcomes, however, are of equal importance. Instead, according to expectancy theory, each outcome is assigned a valence or value which can be positive or negative. In the context of interviews, structured interview use (a behavior) may be evaluated as likely to either enhance or undermine a person's ability to identify quality applicants (i.e., perceived usefulness). In addition, a person also evaluates the ability of these possible outcomes (i.e., identifying

quality applicants) to lead to other desirable or undesirable possible outcomes, such as hiring well performing employees and enhancing overall organizational performance. This process is similar to the one proposed by the revised technology acceptance model.

According to the revised technology acceptance model, based on how easily a structured interview can be implemented (i.e., perceived ease of use), using a structured interview is assigned either a positive or negative value (i.e., valance) which in turn influences the perceived usefulness (i.e., instrumentality) of structured interviews for achieving further desired outcomes, such as having well performing employees. Despite these similarities, however, Dingel and Spiekermann (2007) point out that the technology acceptance model focuses on individual performance (i.e., ability of a particular person to implement and use a given piece of technology) but does not directly measure the impact of how other persons' unique abilities and contributions may impact certain outcomes; something that is accounted for in the theory of planned behavior through behavioral control and subjective norms. This idea will be further elaborated on in the comparison below.

Despite the robustness of this model across the technology acceptance literature (e.g., Mathieson, 1991), with ties to both the theory of reasoned action and expectancy theory, this more focused model has yet to be applied to acceptance of structured interviews (a piece of employee selection technology). Thus, the current study also examined the ability of the technology acceptance model to explain and predict self-reported structured interview use. Therefore, in accordance with the technology acceptance model, the author investigated the following hypotheses:

Hypothesis 7: Perceived ease of using structured interviews will significantly predict the perceived usefulness of structured interviews.

Hypothesis 8: Perceived usefulness will significantly predict people's intention to use structured interviews.

Hypothesis 9: Behavioral intention to use structured interviews will significantly predict people's use of structured interviews.

As previously mentioned, a major contribution of this work, is the comparison of the theory of planned behavior and the technology acceptance model to explain intentions to use and use of structured interviews for selection. Although, this comparison has not been done in the context of employee selection, one previous study has contrasted the ability of the theory of planned behavior and the technology acceptance model to explain technology acceptance. Mathieson (1991) found that although both the technology acceptance model and the theory of planned behavior successfully predicted a person's intention to use a new information system, both models excelled in different ways. Although the technology acceptance model was easier to apply, the theory of planned behavior was able to provide more specific information that could better inform future action aimed to increase information system acceptance. The current study expands upon this research by contrasting the ability of these two models to explain resistance to structured interviews in terms of intentions to use and actual use of these interview for screening job applicants. Also discussed is how each model may uniquely contribute to our understanding of resistance toward structured interviews among people with previous hiring experience, as well as motivate future research and practice to help lessen this resistance.

Comparison between two theories. Both the theory of planned behavior and the technology acceptance model are extensions of the theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). As can be seen in Figures 1 and 3, both models posit that behavioral intention is a good predictor of actual behavior. These theories, however, differ in

terms of what aspects lead to intentions and behavior. This results in several key difference between the two models. Each of these differences and their potential to influence the ability of these models to predict use of structured interviews are described in more detail below and a summary of this comparison is included in Table 2.

Breadth of focus and the role of attitudes. According to the original technology acceptance model (see Figure 2), attitude is a byproduct of perceived ease of use and perceived usefulness (Davis, 1986; Davis et al. 1989). In the revised technology acceptance model, however, attitude (although a byproduct of the predictors of perceived usefulness and perceived ease of use) is unnecessary to be included in the model to predict intentions. Instead, the revised technology acceptance model takes a more focused approach to explaining structured interview use. This model argues that intention toward using a structured interview is the direct result of how useful structured interviews are for achieving desired selection outcomes (i.e., instrumentality), and that this is influenced by how easily the structured interviews can be learned, implemented, and used (i.e., expectancy). The technology acceptance model's more focused approach may result in better measurement of intentions specific and important to structured interview use (a technological advancement in selection) than the more general attitude/impressions assess in the theory of planned behavior which may not be particularly relevant to actual intentions or structured interview use. For example, the measure of attitudes used by van der Zee asks participants to indicate whether the structured interview was pleasant or unpleasant. However, the degree of pleasure derived from the interview, may not be relevant to human resource practitioners seeking to identify quality applicants. Instead more predictive of intention and actual interview use may be opinions about how useful a structured interview is at selecting quality applicants and how easy it would be to learn to use, two aspects captured by

perceived usefulness and perceived ease of use in the technology acceptance model, which are not directly measured in the theory of planned behavior model.

The generality of attitude as assess by the theory of planned behavior is a direct result of the flexibility of this model to be applied across a wide variety of situations (as shown above). This superior flexibility of application, however, is not relevant here as we are only interested in the ability of these models to explain use of structured interviews. Thus, the more flexible approach of the theory of planned behavior is not necessarily an advantage over the more focused technology acceptance model, which has been shown to be useful in predicting the acceptance of numerous technological advances (Adams et al., 1992; Chin & Gopal, 1993; Davis & Venkatesh, 1996; Gefen & Straub, 1997; Igbaria et al., 1997; Legris et al., 2003; Mathieson, 1991; Subramanian, 1994; Szajna, 1994, 1996; Venkatesh & Davis, 1996; Venkatesh & Morris, 2000). In congruence with the technology acceptance model, previous research has suggested that the perceived validity of a selection technique and its perceived ability to identify quality applicants (i.e., perceived usefulness) are significant predictors of practitioners' willingness to use a given selection tool (König et al., 2010). In addition, barriers to using selection tools such as the cost of implementation and skill needed to use them (i.e., perceived ease of use) has also been shown to influence practitioners' decisions regarding use of selection tools (König et al., 2010). Thus, the technology acceptance model may be a good model of people's intentions to use structured interviews. However, as can bee seen in van der Zee et al.'s (2002) study, the theory of planned behavior is likely to be found to explain intentions to use structured interviews. Central to this study, is the argument that the technology acceptance model's more direct approach on factors that lead to intentions to use technological advances may perform as well as, or better than, the more loosely focused theory of planned behavior, which has been partially

supported by past research to explain intentions toward structured interviews (van der Zee et al., 2002).

Parsimony and ease of measurement. In a related vain the more focused application of the technology acceptance model results in it exceling over the theory of planned behavior in both parsimony and ease of measurement. Although the theory of planned behavior has already been shown to be a useful model for examining intentions to use structured interviews (van der Zee et al., 2002) this model is less parsimonious and harder to implement (i.e., measure) than the technology acceptance model.

Regarding parsimony, although the theory of planned behavior and the technology acceptance model both stem from the theory of reasoned action, the updated version of the technology acceptance model tested in this paper, is simpler (i.e., more parsimonious) than the theory of planned behavior. According to the technology acceptance model, intention to use a structured interview is the result of the perceived ease of use and perceived usefulness of the interview. The theory of planned behavior, in comparison, claims that intention to use structured interviews is the result of a person's attitude, perceived behavioral control, and subjective norm toward using the interview. Additionally, perceived behavioral control may also directly impact behavior. If the technology acceptance model and the theory of planned behavior were to be shown to be equally predictive of intentions to use structured interviews, then the law of parsimony would indicate that the technology acceptance model is the superior explanation for structured interview use.

Regarding measurement, although the theory of planned behavior requires the time-consuming process of specially designed scales, individualized to each situation, showing that popular technology acceptance model scales can be used to successfully model pieces of non-

computerized technology would support that these scales could be easily adapted to explain acceptance and use of other forms of selection tools and other organizational developments in the field of I-O psychology. Thus, the technology acceptance model may be more useful and applicable to practitioners to aid them in easily identifying reasons for resistance to well validated selection tools and developments in the applied world, compared to the theory of planned behavior. Therefore, based on the information outlined above, the technology acceptance model is superior to the theory of planned behavior in terms of both parsimony and ease of measurement.

Inclusion of social variables and control factors. In contrast, the theory of planned behavior can be seen to excel over the technology acceptance model in terms of the variety social and control factors accounted for by the model. Unlike the theory of planned behavior, the technology acceptance model does not directly include social or behavioral control variables.

The theory of planned behavior's inclusion of subjective (or social) norms takes into account social pressures that a person may feel toward using a certain tool, such as structured interviews. For example, if an organization has a long history of using unstructured interviews, the organization's current employees may feel pressure to continue to use unstructured interviews, regardless of their beliefs about the superiority of structured interviews. The technology acceptance model, in contrast, does not explicitly include these social factors. Davis et al. (1989), however, argues that social norms are not entirely independent from outcomes, and in fact may be included in the model in less direct ways. For example, perceived ease of use (included in the technology acceptance model) may be influenced by barriers a person perceives from expectations in their environment, such as social pressures to keep the selection process simple and easy to administer to all applicants. Thus, social expectations may already be

integrated into the model via a person's perception of how easy a new tool (e.g., structured interviews) would be to implement and use. Such aspects may be captured by perceived ease of use items such as "using structured interviews would be easy and understandable" thus negating the need for separate social variables to be included in the model. The theory of planned behavior, however, would still be expected to excel over the technology acceptance model to the extent that the theory of planned behavior is able to capture social variables contributing to variance in decisions to use structured interviews not accounted for by the technology acceptance model. Pervious research, however, does not specify the extent to which this may be the case.

In terms of behavioral control variables, only the theory of planned behavior explicitly includes external control factors. According to the theory of planned behavior, perceived behavioral control refers to the skills, resources, and opportunities necessary to enact a given behavior. Specifically, as stated above, Ajzen (1985) differentiates between internal control factors (e.g., skill needed to implement a structured interview) and external control factors (e.g., organizational resources such as time, money, or leadership support needed to implement a structured interview). Thus, measures of perceived behavioral control (like those used in this study) should capture both internal and external control factors. In contrast, it has been argued that although the technology acceptance model does not measure external control factors, it does measures internal control factors via perceived ease of use (Mathieson, 1991). Perceived ease of use, which according to Davis (1989)'s definition and measure, captures internal control factors such as the perceived ability of a person to learn and successfully use a new piece of technology. For example, the perceived ease of use measure developed by Davis (1989) includes items such as, "It would be easy for me to become skillful at using chart-master," and "I would find chart-master easy to use." These items can easily be adapted for structured interviews (a piece of

selection technology) and may assess many of the internal aspects of control that may influence structured interview use. Other external control factors such as buy-in from others organizational stakeholders, however, are not covered in Davis's definition of ease of use and are therefore, not included in his corresponding measure. Thus, the more a person's intentions toward and use of structured interviews is influenced by external behavioral control factors the less likely the technology acceptance model is successfully model structured interview use. However, although previous research has supported control factors to be a significant predictor of intentions to use structured interviews (van der Zee et al., 2002), previous research has not identified the extent to which external versus internal control factors are instrumental in people's selection decisions. Thus, we cannot know to what extent the absence of external control factors is a detriment to the technology acceptance model's ability to explain use of structured interviews.

In sum, although both theories are extensions of the theory of reasoned action and argue that intentions can be used to predict behavior, they differ in what is thought to caused intentions and behavior and excel in different ways. The technology acceptance model is more parsimonious, easier to implement, and has a more direct focus on capturing aspects related to the intent to implement and use a technology to achieve a desired outcome (i.e., selecting quality employees). In comparison, although the theory of planned behavior is less parsimonious and difficult to implement its broader focuses allows for the capturing of additional external control and social factors that may contribute to structured interview acceptance for employee selection. However, the ability of each of these models to explain intent to use structured interviews and/or actual structured interview use has not been compared in previous studies, yet each has the potential to provide a framework for further investigations into use of structured interviews and influence future research on resistance to the use of structured interviews within organizations.

Research questions regarding model comparison. The theoretical comparison of the theory of planned behavior and the technology acceptance model described above raises several research questions address by this study.

Research Question 1: How well do the theory of planned behavior and the technology acceptance model explain variance in intentions to use of structured interviews among employees with previous hiring experience?

Both models include intention as a predictor of behavior, however, they differ on what constructs are thought to lead to intention. Thus, although both models are hypothesized to explain a significant portion of the variance in peoples' intentions to use structured interviews for screening job applicants, this paper also compared these two models on the percentage of variance in intention to use that is explained by attitudes, subjective norms, and perceived behavioral control in the theory of planned behavior, as well as perceived ease of use and perceived usefulness in the technology acceptance model. This is important as knowing the relative ability of these models to predict intention to use structured interviews can provide insight into what aspects of structured interviews and/or the implementation of structured interviews should be targeted to increase the probability of employees' intending to use them to screen job applicants.

The current study examined the ability of these two theories to explain structured interview use by examining the following research question:

Research Question 2: How well do the theory of planned behavior and the technology acceptance model explain variance in use of structured interviews among employees with previous hiring experience?

Although it is important to explain intentions to use structured interviews, the ultimate goal of this research, as well as much of the research on resistance to structured interviews (Highhouse et al., 2017; Lievens & Paepe, 2004; Ryan et al., 1999; Terpstra & Rozell, 1993) is to find ways to increase the use of structured interviews in organizations over the substantially less valid unstructured interview (Huffcutt & Arthur, 1991). Therefore, it is important to compare the ability of these models to explain variance in structured interview use for screening job applicants. Knowing which of these models is better able to explain variance in structured interview use will provide a foundation for which aspects of structured interviews, and/or the environment in which they are being implemented, that should be targeted to have the greatest chance of improving structured interview acceptance and use among organizations.

In sum, numerous studies have documented resistance to structured interviews, in favor of the less valid unstructured interview (Highhouse et al., 2017; Lievens & Paepe, 2004; Ryan et al., 1999; Terpstra & Rozell, 1993). Previous research has suggested many different factors that may contribute to this resistance toward structured interviews; research into a comprehensive model to explain structured interview use, however, remains limited (Dipboye, 1994, 1997; van der Zee, Bakker, & Bakker, 2002). This study sought to expand upon previous research by comparing the ability of the technology acceptance model and the theory of planned behavior to explain intentions to use and use of structured interviews among employees with hiring experience. By increasing scientific understanding of models that explain structured interview use, this study provides a foundation to motivate further research aimed at increasing the use of structured interviews for hiring among organizations.

METHODS

Participants

Participants responded to a posting on MTurk. After completing the informed consent, participants were presented with a series of three screening questions (see Appendix A) to filter out people not meeting the minimum qualifications for participation in this study (i.e., not currently employed at least part-time outside of MTurk and who have not been involved in hiring an applicant at their current organization). Only participants who passed these screening questions could continue onto the main survey. The survey informed participants failing to meet the study qualifications that they did not qualify and thanked them for their interest in the research. Participants were U.S. based Amazon Mechanical Turk (MTurk) workers. All participants were required to be employed at least part-time (i.e., 20 hours a week or more) and have been involved in hiring at least one applicant while working at their current organization. Current employment and hiring experience were assessed using three screening questions (see Appendix A) following the consent form.

A total of 512 people attempted the survey. Of those, 179 people did not meet the screening criteria. The remaining 333 people were examined for careless responding using logical errors in their responses (i.e., indicated that they had not been involved in interviewing at their current organization, but had interviewed one or more people while at their current organization). This resulted in the removal of 94 participants. An additional two people were excluded due to indicating, at the end of the survey, that they had no previous hiring/selection, despite this having been required as part of the screening questions. Within-person scale variance was calculated for the remaining 237 participants. Due to the small number of items in many of the included scales, the author only removed participants with zero variance

on five or more of the study scales. This resulted in the removal of ten additional participants resulting in a final same size of 227.

The final sample (N = 227) was 67% male, 78% Caucasian, with a mean age of 37 years (SD = 10 years). Ninety-nine percent of participants had worked for their current organization for at least one year, with 51% working there more than five years. All participants had previous hiring experience, however, 44% indicated that had been involved in hiring more than 10 employees while at their current organization. Additional information on the education, employment, and selection experience of participants can be found in Table 3.

Procedure

Upon entering the main survey, participants read directions for the survey and reviewed a description of structured and unstructured interviews (See Appendix B). After reading the description, participants completed three true-false questions based on the description (see Appendix A) to ensure that they had read and understood the definition of a structured interview. Participants could move on once they had correctly responded to the true-false items. A message appeared for participants who failed to accurately respond to these questions stating that they failed to accurately respond to the questions following the interview description. They were asked to re-read the description before attempting to respond to the questions again.

After successfully completing this attention check, participants completed the following measures regarding structured interviews: interview use behavior, behavioral intention to use, attitude toward using, perceived behavioral control, subjective norm, perceived usefulness, and perceived ease of use. Participants also completed a series of demographic variables (see the Appendix A for complete list of all study items). Upon completion of the survey, participants received a MTurk code to receive $1.50 for their participation.

Measures

A complete list of all study items can be found in Appendix A. Perceived usefulness and perceived ease of use were measured using scales developed by Davis (1989). The original article, which focused on the development of these scales has been cited over 41,000 times according to Google Scholar (2018) and has been used to predict user acceptance of a variety of different technologies (e.g., Mathieson, 1991). As these items were originally constructed to measure acceptance of electronic email systems, file editors, and chart building software, items were adapted to refer to perceived usefulness and perceived ease of use of structured interviews for hiring proposes. Further details of these two scales are included below.

Perceived usefulness. Perceived usefulness of structured interviews was measured using an adapted version of the 5-item perceived usefulness scale (Davis, 1989); Cronbach alpha of .92. Participants responded on a 5-point (1 = *strongly disagree*; 5 = *strongly agree*) scale. Example items include, "Using structured interviews for hiring would enable me to select the best candidates" and "Using structured interviews would make selecting quality employees easy." A complete list of the original Davis (1989) scale items and the adapted items used in the current study are included in Table 4.

Perceived ease of use. Participants responded to perceived ease of using structured interviews by answering an adapted form of the 6-item perceived ease of use scale from Davis (1989); Cronbach alpha of .78. Participants responded on a 5-point (1 = *strongly disagree*; 5 = *strongly agree*) scale. Example items include, "It would be easy for me to become skillful at using structured interviews," and "I would find structured interviews easy to use." A complete list of the original Davis (1989) scale items and the adapted items used in the current study are included in Table 5.

Attitude. Overall attitude toward structured interviews was measured using a 7-item scale from van der Zee et al. (2002). Each item describes a favorable and unfavorable evaluation of structured interviews on a 5-point scale, such as *bad* (i.e., 1) at the negative pole versus *good* (i.e., 5) at the positive pole. Participants then indicate where they fall on the continuum. Cronbach alpha for this scale was .93. Additional items include, "unpleasant/pleasant" and "ineffective/effective."

Subjective norm. Subjective norms surrounding structured interviewing was assessed using three items adapted from van der Zee et al. (2002). Participants responded on a 5-point (1 = *strongly disagree*; 5 = *strongly agree*) scale. The resulting Cronbach alpha was .79. Example items include, "People at work would agree I should use structure interviews to assess applicants," and "People at work would disapprove of me using structured interviews to assess applicants." A complete list of the original van der Zee et al. (2002) scale items and the adapted items used in the current study are included in Table 6.

Perceived control. Perceived control over using structured interviewing was assess using six items adapted from van der Zee et al. (2002). Participants responded on a 5-point (1 = *strongly disagree*; 5 = *strongly agree*) scale. Cronbach alpha was .71. Example items include, "I am able to use structured interviews to assess applicants if I want to," and "I possess the knowledge needed to perform structured interviews." A complete list of the original van der Zee et al. (2002) scale items and the adapted items used in the current study are included in Table 7.

Behavioral intention to use. Intention to use is defined in the same way by both the technology acceptance model and the theory of planned behavior. Therefore, intention to use structured interviews was measured using the same 3-items adapted from van der Zee et al. (2002), for both models. Participants responded on a 5-point (1 = *strongly disagree*; 5 = *strongly*

agree) scale. Cronbach alpha was .89. Example items include, “I expect that I would select employees using the structured interview method described above,” and “I intend to apply some of the elements from the described method in my own selection procedures.” A complete list of the original van der Zee et al. (2002) scale items and the adapted items used in the current study are included in Table 8.

Interview use behavior. Actual interview use is defined in the same way by both the technology acceptance model and the theory of planned behavior. Therefore, interview use behavior was measured using the same two items (see Appendix A) modeled after the four levels of question standardization, and three levels of scoring standardization outlined by Huffcutt and Arthur (1991). Resulting Cronbach’s alpha was .69.

RESULTS

Descriptive statistics, initial scale reliabilities, and correlations between study variables are reported in Table 9.[1] Variables for both models were examined for violation of structural equation modeling assumptions prior to calculating the measurement models. These analyses revealed that one or more of the endogenous variables in both hypothesized models were non-normal. To accommodate this, maximum likelihood estimation with robust standard error (MRL in R's Lavaan package) was used instead of the default maximum likelihood estimation. Maximum likelihood estimation with robust standard error results in parameter estimates with standard errors and a mean-adjusted chi-square statistic (i.e., Yuan-Bentler chi-square) that are robust to non-normality and allows for missing data (Yuan & Bentler, 1998). Due to the use of the robust maximum likelihood estimation method, only the robust estimates for fit statistics are included in the analyses below.

Theory of Planned Behavior

Measurement model. Items for all five scales included in the theory of planned behavior model were entered into a confirmatory factor analysis (CFA). The CFA was not found to adequately fit the data: CFI = .87; SRMR = .14; RMSEA = .10; RMSEA 90% CI ranged from .09 to .11. The chi-square was significant, χ^2_{YB} (180) = 540.23, $p < .001$. Inspection of the modification indices suggested allowing items 2 (i.e. people at work would disapprove of me using structured interviews to assess applicants) and 3 (i.e. people at work would frown on using

[11] Due to the varying response scales for the two behavior items (4-point scale for the question standardization item and 3-point scale for the scoring standardization item) responses to the scoring standardization item were transformed onto the question standardization 4-point scale using z-scores. These transformed values were used to calculate the overall behavior variable used to calculate the mean, standard deviation, Cronbach's alpha, and correlations reported in Table 9. Due to the ability for structural equation modeling (SEM) to handle indicator variables on varying scales, the raw question standardization and scoring standardization item scores were used in all SEM analyses.

structured interviews to assess applicants) of the subjective norms scale to correlate. This was allowed as both of these items are negatively worded and, therefore, may have additional shared variance due to their wording that is not captured by the latent subjective norms factor. This modified CFA had improved model fit, but was still not found to adequately fit the data: CFI = .93; SRMR = .10; RMSEA = .07 RMSEA 90% CI ranged from .06 to .08. The chi-square was still significant, χ^2_{YB} (179) = 377.52, $p < .001$. Review of the modification indices suggested allowing item 1 of the perceived control scale to correlate with the attitude, subjective norm, and intention to use latent factors. This suggests that this item is capturing more than just perceived behavioral control. In addition, only 26% of the variance in this item was accounted for. Therefore, the CFA was rerun without the item. This modified CFA was found to be an adequate fit for the data: CFI = .95; SRMR = .08; RMSEA = .07 RMSEA 90% CI ranged from .05 to .08. The chi-square was still significant, χ^2_{YB} (160) = 300.04, $p < .001$. All items significantly loaded onto their respective factors with between 19 and 89% of the variance accounted for. Fourteen of the normalized residuals had absolute values greater than two. No Heywood cases were found.

All latent factors were significantly positively correlated with one another with the exception of behavioral control, which was not found to be significantly correlated with attitude, intention, or behavior (see Table 10). Thus, the more positive a person's attitude toward structured interviews the more likely they were to perceive using structured interviews to be the norm in their organization, as well as to intend to use and actually use structured interviews for screening applicants in their current organization. Additionally, people who viewed using structured interviews as the norm for their organization were more likely to intend to use and actually use structured interviews; they were also more likely to perceive the choice to use structured interviews as under their control. Finally, intention was found to be significantly

correlated with behavior (r = .64, p <.001). Thus, people who intended to use structured interviews were also more likely to actually use them for screening applicants in their current organization.

Structural model. The hypothesized model was found to be an adequate fit for the data: CFI = .95; SRMR = .08; RMSEA = .07; RMSEA 90% CI ranged from .06 to .08. The robust chi-square was significant, χ^2_{YB} (162) = 304.86, p < .001. All items loaded significantly onto their respective factors, with between 7% and 87% of the variance in the items accounted for. Sixteen of the normalized residuals had absolute values greater than two, and no Heywood cases were found.

Hypothesis 1 stated that attitudes, subjective norms, and perceived behavioral control over using structured interviews would be significantly intercorrelated. Contrary to hypothesis 1, perceived behavioral control was not found to be significantly correlated with attitudes toward structured interviews (r = .09, p = .247). As predicted by hypothesis 1, however, subjective norm was related to both perceived behavioral control (r = .24, p = .004) and attitudes (r = .82, p < .001). Thus, hypothesis 1 was only partially supported. In accordance with hypotheses 2 and 3, intentions to use structured interviews was predicted by both attitudes toward structured interviews (β = .63, p < .001) and subjective norms surrounding structured interviews (β = .36, p = .011). Thus, people who had a positive attitude toward structured interviews and/or in an organization where they perceived the norm as being favorable toward the use of structured interviews were more likely to intend to use structured interviews for screening applicants. Contrary to hypothesis 4 and 5, the data failed to support perceived behavioral control as a predictor of intention to use structured interviews (β = -.08, p = .189) or actual structure interview use behavior (β = .04, p = .614). In support of hypothesis 6, intention to use structured

interviews significantly predicted structured interview use behavior, $\beta = .64$, $p < .001$. Thus, people who intend to use structured interviews are more likely to actually use structured interviews to screen applicants. This model was able to account for 88% of the variance in intentions to use structured interviews and 42% of structured interview use among the current sample.

Results of a chi-square difference test failed to find a significant reduction in fit. (χ^2_{YB} (2) = 4.82, $p = .090$). Therefore, the additional constraints of the hypothesized model did not result in a significant reduction in fit compared to the measurement model. This suggests that this structural model is a good fit for the data, however, not all hypothesized paths were supported .

Technology Acceptance Model

Measurement model. Items for all four scales included in the technology acceptance model were entered into a CFA. The CFA was not found to adequately fit the data: CFI = .94; SRMR = .12; RMSEA = .08; RMSEA 90% CI ranged from .07 to .10. The chi-square was significant, χ^2_{YB} (99) = 234.93, $p < .001$. Further inspection of the model revealed that item 4 of the perceived ease of use scale (i.e., I find structured interviews flexible to work with) did not load well onto perceived ease ($\lambda = .16$). This makes theoretical sense as structured interviews, by definition, are high in rigidity and therefore inflexible. Therefore, despite this being designed as a positively worded item in Davis's (1989) perceived ease of use scale, this item does not translate well to structured interviews. Therefore, this item was dropped from further analyses.

After rerunning the model without item 4, the CFA was found to be a good fit for the data: CFI = .96; SRMR = .06; RMSEA = .07; RMSEA 90% CI ranged from .05 to .08. However, the robust chi-square was still significant although it dropped substantially, χ^2_{YB} (85) = 161.63, $p < .001$. All indicators loaded significantly onto their respective factors, with between 43 and 87%

of the variance in the items accounted for. Six of the normalized residuals had absolute values greater than two. No Heywood cases were found.

All latent factors were significantly positively correlated with one another (see Table 11). Thus, the higher (or lower) a person is on any of the four factors (perceived ease of use, perceived usefulness, intention, and behavior) the more likely that person will be high (or low) on the other three factors. Thus, people who perceived structured interviews to be easy to use are more likely to perceive structured interviews as useful, intend to use them, and actually use them in their current organization.

Structural model. The hypothesized model (see Figure 3) does appear to adequately fit the data: CFI = .96; SRMR = .07; RMSEA = .07; RMSEA 90% CI ranged from .05 to .08. The robust chi-square was significant, χ^2_{YB} (88) = 163.24, $p < .001$. All items loaded significantly onto their respective factors, with between 43 and 87% of the variance in the items accounted for. Eight of the normalized residuals had absolute values greater than two, and no Heywood cases were found.

Hypothesis 7 predicted that perceived ease of using structured interviews would significantly predict perceived usefulness of structured interviews. This hypothesis was supported in the model ($\beta = .37$, $p < .001$). People who perceived structured interviews as easy to use were more likely to perceive them as useful. In support of hypothesis 8, perceived usefulness of structured interviews significantly predicted intention to use structured interviews ($\beta = .88$, $p < .001$). Therefore, people who perceive structured interviews as useful are more likely to intend to use them for screening applicants. Finally, in support of hypothesis 9, intention to use structured interviews significantly predicted actual structured interview use ($\beta = .64$, $p < .001$). Thus, people who intended to use structured interviews were more likely to have previously used

them to screen applicants at their current organization. The model was able to account for 77% of the variance in intention to use and 40% of the variance in structured interview use. In sum, the results of this study supported the technology acceptance model for predicting structured interview use.

Results of a chi-square difference test failed to find a significant difference in fit (χ^2_{YB} (3) = 1.61, p = .657). Therefore, the additional constraints of the structural model did not result in a significant reduction in fit compared to the measurement model; this further supports the technology acceptance model as a good fit for these data.

Research Questions

Intentions. Research question 1 asked how well the two models were able to explain variance in intention to use structured interviews for screening applicants. Results of the structural models for both the theory of planned behavior and the technology acceptance model explained 88% and 77% of the variance, respectively. This suggests that both models can explain a large portion of variance in intentions to use structured interviews among employees with previous hiring experience. The theory of planned behavior, however, appears to more fully explain variance in intentions.

Behavior. Research question 2 asked how well the two models were able to explain variance in actual structured interview use (i.e. behavior). Forty-two percent of the variance in structured interview use was accounted for by the theory of planned behavior structural model, compared to 40% of the variance which was accounted for by the technology acceptance model. Thus, both models appear to be similarly useful in explaining variance in use of structured interviews among employees with previous hiring experience. The technology acceptance model,

however, provides a more parsimonious explanation and thus, is the superior explanation of structured interview use.

DISCUSSION

The current study sought to expand upon previous research by examining the ability of two theories, the theory of planned behavior (Ajzen, 1991) and the technology acceptance model (Davis, 1986; Davis et al. 1989), to explain intentions to use and use of structured interviews for screening job applicants. Results showed that both models explained roughly the same amount of variance in structured interview use: 42% for the theory of planned behavior and 40% for the technology acceptance model. The technology acceptance model, however, is the more parsimonious and better explanation for these data. The results of this study, therefore, support the use of the technology acceptance model as a useful model to explain structured interview use among employees with previous hiring experience, superior to the theory of planned behavior. For these reasons this discussion will briefly elaborate on the theory of planned behavior findings in comparison to those found by van der Zee et al. (2002). The discussion will then move to examining the technology acceptance model. A comparison of the two models, practical implications of this work (for both research and practice), and future directions, are also discussed.

In the theory of planned behavior model, both attitudes toward structured interviews and subjective norms surrounding structured interviews significantly predicted intentions to use them. Of these two, attitude was the strongest predictor ($\beta = .63$). This replicates the findings of van der Zee et al. (2002), which found that both attitudes and social norms significantly predicted intentions to use structured interviews, with attitudes being the strongest predictor. Contrary to van der Zee et al. (2002), however, the current study failed to find perceived behavioral control as a significant predictor of intentions to use a structured interview. The current study also explained a greater percentage of the variance in intentions (88%) compared to

the 50% explained in van der Zee et al. (2002). Intentions were also significantly positively related to behavior (i.e., structured interview use) with the theory of planned behavior model explaining 42% of the variance in behavior. Van der Zee at al. (2002) in comparison, failed to find any significant relation between HR managers' intentions and actual interview use behavior.

There are several possible reasons for these discrepancies. First, as noted above, van der Zee et al. (2002) used a small sample, suggesting a Type II error as the reason for their failure to find a relation between intentions and behavior. Stemming from the issue of sample size, van der Zee et al. also utilized path analyses to examine their data. Path analyses assume the constructs of interest are measured without error. As this is never the case with psychological constructs, the lack of variance explained by their study and failure to find a relation between intentions and behavior is possibly the result of measurement error, which is unaccounted for in their model. Differences in results due to differences in the samples used, are also possible. Van der Zee et al. (2002) utilized a sample of HR managers, compared to the current sample of MTurkers with previous hiring experience. It is possible that HR managers, which likely have a deeper understanding of the hiring process, have more training in people processes within organizations, are differentially influenced by their attitudes about interviews, perceived behavioral control, and surrounding social norms, compared to a more lay audience. Demographics collected for the current MTurk sample show study participants represent a wide variety of industries, education levels, and hiring experience. Only 7% of the current sample, however, indicated their highest degree being in human resources with over 50% holding a business degree (see Table 3 for further details). The current sample, therefore, is likely a better representation of a typical interviewer than van der Zee's exclusively HR sample. Because of this, it is unknown if the current findings generalize to HR managers.

In sum, the theory of planned behavior was partially supported as a model of structured interview use. These findings suggest that interventions targeting increasing positive attitudes toward structured interviews, and increasing acceptance of structured interview implementation through changing organizational social norms, may result in increased intentions to use and use of structured interviews. Caution should be used when interpreting these results, however, as the relations found here are correlations; the direction of the relations between constructs identified in this study are unknown.

Regarding the technology acceptance model, all predicted relations were supported, and the model was found to be a good fit to the data. In accordance with the model, and our findings for the theory of planned behavior, intention predicted behavior. Thus, interventions targeting increasing employees' intentions to use structured interviews were associated with increased structured interview use. Also, perceived usefulness of the structured interview and intentions to use the interview were related. This suggests that interventions or informational materials targeting employer's knowledge of the usefulness of the structured interview (i.e., high validity and low cost of implementation for small applicant pools) may result in greater intentions to use. I-O practitioners should consider emphasizing this information on sell sheets (i.e., handouts advertising specific services available through a given vendor). HR managers and internal I-O practitioners knowledgeable of the benefits of structured interviews may also find it useful to emphasize these aspects of perceived usefulness to get buy-in from organizational stakeholders.

In accordance with the technology acceptance model, the current study also found perceived ease of using structured interviews to predict perceived usefulness. This suggests that emphasizing how easy it is to use structured interviews may lead to greater perceived usefulness, and therefore, intentions and use. Practitioners may find it particularly useful to emphasize how

easily structure can be added to an interview. Simply asking the same, job-related questions to all applicants and/or rating them on a pre-determined Likert scale can result in substantial increase in validity over an unstructured interview (Huffcutt & Arthur, 1991) with limited interviewer training needed.

Thus, the technology acceptance model was supported as a useful model of structured interview use among employees with hiring experience. It suggests that training programs and materials targeted toward informing interviewers of the ease of implementing structure into new or existing interviews, and the usefulness of structured interviews for identifying quality applicants, may result in greater structured interview use, leading to the selection of better performing employees.

Direct Comparison

Directly comparing the two theories, both models were able to explain substantial portions of variance in intentions to use structured interviews. The theory of planned behavior, however, outperformed the technology acceptance model, 88% compared to 77%, respectively. The models performed almost equally well at explaining behavior (i.e., structured interview use) Forty-two percent of variance in behavior was explained by the theory of planned behavior compared to 40% for the technology acceptance model. As the main goal of this research is to explain structured interview use, the author argues that the 11% difference in ability to explain intentions is negligible as both models explain substantial portions of the variance in intentions and roughly equal portions of the variance in behavior.

Additionally, the technology acceptance model excels over the theory of planned behavior in terms of parsimony. Both theories suggest that behavior is influenced by behavioral intentions. The theory of planned behavior posits that these intentions result from attitudes about

a behavior, the social norms surrounding that behavior, and a persons perceived ability to perform that behavior. In addition, perceived behavioral control is proposed to directly impact behavior. The technology acceptance model, in comparison, posits that intentions are an outcome of the perceived usefulness, which results from perceived ease of use. The law of parsimony argues that preference should be given to simpler explanations. Because the technology acceptance model can explain structured interview use approximately as well as the theory of planned behavior with fewer constructs and paths, it is the superior model according to parsimony.

The technology acceptance model also excels in terms of the ease of measurement, which increases the ability of the findings in this study to be replicated and applied to organizational settings. As mentioned above, the theory of planned behavior posits that the relevant attitudes, social norms, and aspects of perceived behavioral control are unique to each situation (Ajzen & Fishbein, 1980). Measures of these variables, therefore, must be designed and piloted for each situational application. This means that researchers and practitioners using the theory of planned behavior to investigate resistance to valid selection tools would do well to invest additional time and resources to modifying and testing the necessary measures. The technology acceptance model measures, in comparison, have shown to be applicable across a variety of situations with limited modifications (Adams et al., 1992; Chin & Gopal, 1993; Davis & Venkatesh, 1996; Gefen & Straub, 1997; Igbaria et al., 1997; Legris et al., 2003; Mathieson, 1991; Subramanian, 1994; Szajna, 1994, 1996; Venkatesh & Davis, 1996; Venkatesh & Morris, 2000). As the current study shows, these scales can also explain structured interview resistance (with the exception of one perceived ease of use item). Therefore, it is also likely that these measures can be used to model reasons for use/resistance to other selection tools. This increased ease of measurement, in

conjunction with the more parsimonious explanation offered by the technology acceptance model, means that researchers and organizations wishing to investigate and design interventions to increase the use of other valid selection tools (e.g., personality and cognitive ability tests) can use adapted version of the Davis (1989) scales to meet this need.

The reader should also note that the paths predicted by the theory of planned behavior structural model were only partially supported. All predicted paths for the technology acceptance model, however, were supported and this model was found to be a good fit and thus a good explanation of the relationships between variables within the current sample.

In sum, the current study supports both the theory of planned behavior and the technology acceptance model as useful theories to model intentions to use and use of structured interviews for screening applicants. The technology acceptance model, however, excels in terms of parsimony, ease of measurement, and was fully supported by the current data. Thus, this study supports the technology acceptance model as the better model of structured interview use among employees with previous hiring experience.

Implications

Several important implications can be drawn from these results. First, the ability of the theory of planned behavior to account for a larger percentage of the variance in intentions (88% compared to 77% of the variance explained by the technology acceptance model) suggests that there are some aspects of intention to use structured interviews that are accounted for by the theory of planned behavior, but not accounted for by the technology acceptance model. As mentioned previously, unlike the theory of planned behavior, the technology acceptance model has a narrower focus and does not explicitly include social or behavioral control variables. Thus, it may be that these social and behavioral factors may influence intention to use structured

interviews but may not substantially influence structured interview use. Specifically, the attitudes assess in the theory of planned behavior are far broader than the attitudes assessed in the technology acceptance model, which are specific to perceived ease of implementation and usefulness for identifying quality applicants. The theory of planned behavior, in comparison, broadly assesses attitudes related to the situation including general positive or negative feelings about structured interviews. Therefore, it may be that peoples' intentions to use structured interviews are influenced by their attitudes related to structured interviews outside of just perceived ease of use and perceived usefulness. Further support for this can be found by examining the correlations. Attitudes (as they are defined by the theory of planned behavior) where found to be correlated with intentions at .85. In comparison, perceived usefulness (also thought to directly impact intentions) was found to be correlated with intentions .50. Despite differences in ability of the both theories to explain intentions, both models were able to predict roughly the same amount of variance in actual structured interview use. This suggests that the more parsimonious model of technology acceptance is superior for explaining structured interview use among employees. It also suggests that use of structured interviews can be modeled well without the additional aspects of social and behavioral control included in the theory of planned behavior.

There are several possible reasons that the addition of social and behavioral control variables may not result in a substantial increase in ability to predict behavior. First, it could be that these factors are not influential in interviewers' decisions to use structured interviews. For example, it could be that even if your general attitude toward structured interviews is poor, the aspects of your attitude that are most likely to influence behavior is if you find structured interviews to be an effective and practical tool for your current situation. These aspects of

attitude toward structured interviews (effectiveness and practicality) are covered by the technology acceptance model through perceived usefulness (i.e., effectiveness) and perceived ease of use (i.e., practicality). Another reason the explicit inclusion of these social and behavioral factors may not result in a substantial increase in prediction of behavior is that the extent to which they are indirectly measured as part of perceived ease of use could be sufficent to capture a significant portion of the relation between these factors and intentions to use. For example, external control factors (e.g., having a boss who would support the implementation of a structured interview) are explicitly included in the theory of planned behavior, but not included in the technology acceptance model. However, external control factors, like supervisor support for structured interviews, may be covered indirectly by perceive ease of use. If a person perceives their supervisor as being unsupportive of structured interviews, they are likely to see their supervisor as an impediment to structured interview use. This may result in their being less likely to see structured interviews as easy to implement in their organization.

As mentioned above, the theory of planned behavior would be expected to excel over the technology acceptance model to the extent that the theory of planned behavior is better able to capture social and behavioral control variables contributing to variance in decisions to use structured interviews not accounted for by the technology acceptance model. The success of both models at predicting behavior, therefore, suggests that the exclusion of these aspects of social and behavioral control in the model is not a substantial detriment to our understanding of structured interview use for screening job applicants.

This research has additional implications for our understanding of what influences practitioners' decisions about whether or not to use structured interviews. Research has shown the benefit of presenting practitioners with information regarding the validity of interviews (e.g.,

Highhouse et al., 2017). This research has included studies on how to best present this data in an understandable way for those with limited statistical training (Brooks, Dalad, & Nolan, 2014; Zhang, Highhouse, Brooks, Zhang, 2018). An important, often under-emphasized piece of these efforts, highlighted by the technology acceptance model, is the perceived ease of using these validated assessments. Emphasizing the usefulness of structured interviews (in terms of its ability to identify applicants likely to perform well on the job) is likely to increase intentions to use. In addition to the work on how to present validity information to lay audiences, however, the current study argues we should also be examining the impact of information regarding the perceived ease of implementing structured interviews on perceived usefulness and the distal outcome of structured interview use. An experimental study where the amount or quality of information regarding how easy it is to increase interview structure should be implemented, and the impact on perceived usefulness and interview use behavior examined. As noted above, practitioners may be unaware of how easily the validity of interviews can be increased by adding limited amounts of structure. Informing them that asking the same questions to all candidates and using a predetermined scale for scoring can substantially increase the validity of their selection process may be an effective, low-cost, intervention to increase the amount of structure used in interviews.

Our findings also support that people who perceive structured interviews as easy to learn and implement are more likely to perceive the structured interview as useful for selecting well-performing employees. They are also more likely to intend to, and actually use, structured interviews for employee selection. This suggests that in order to increase structured interview acceptance and use, the I-O psychology community should emphasize research and practice

aimed toward understanding how to emphasize the usefulness and ease of implementing structured interviews in a way that is meaningful to hiring managers.

Limitations and Future Directions

The current study possesses several methodological and theoretical limitations. First, the author acknowledges that this study is not experimental and therefore is unable to support causal conclusions. Although the current study supports the existence of a positive correlation between perceived ease of use and perceived usefulness, as well as between perceived usefulness and intention to use, the direction of these relationships still needs to be explored. Future research should seek to close this gap through experimental studies manipulating available information regarding ease of use and usefulness in order to examine the impact of these manipulations on intention to use and actual use of structured interviews for employee selection.

There were also several limitations of this study due to the sample. First, it is possible that our sample is not representative of interviewers within organizations. The final sample, however, was found to represent a wide variety of experience, industries, and education levels (see Table 3). This suggests that the sample is indeed representative of a variety of interviewers. Participant dishonestly is also a possibility. Participants may have been able to guess that they needed to indicate previous hiring experience in order to get through the screening questions. If not all the participants who made it through the screening questions had actual interviewing experience this may have skewed the results in an unknown direction. In order to limit this possibility, the data were cleaned by examining the data for logical errors. For example, people who indicated that they had previous interviewing experience, but later indicated that they had interviewed zero people. The examination of these logical errors resulted in the removal of almost 100 participants suggesting that some proportion of participant dishonestly was

successfully screening out of the sample. The extent to which the remaining participants in the data were dishonest, however, remains unknown.

Another potential limitation of the current study is the possibility of mismeasurement of the relevant constructs, possibly due to overlap between some of the utilized scales. Among the theory of planned behavior variables, the correlation between perceived usefulness and intention to use was $r = .88$. The ideal reason for such a high correlation is that perceived usefulness is a true powerful predictor of intention to use structured interviews. Other possibilities, however, should be considered. One such possibility is that these two scales have a high degree of overlap and may, in fact, be measuring the same construct. Further research aimed at examining these scales, possibly through a sorting task or examination of the discriminate and convergent validity of intention and perceived usefulness, should be considered.

Another limitation of the current study is that external factors and individual characteristics that may impact perceived ease of use and perceived usefulness are not examined. These are theorized, however, in Davis's original technology acceptance model (Davis, 1986). Lodato et al. (2008) found that HR managers who tended to make decisions based on feelings, and were less experienced, were less likely to prefer evidence-based practices. Future research should examine the inclusion of these variables into the technology acceptance model to see if Lodato et al.'s findings regarding experience and decision-making styles can be replicated and included as part of the technology acceptance model.

Additional expansions of the technology acceptance model should also be explored. Highhouse (2008) suggests that preferences for unstructured interviews are due to a false belief in perfect prediction and that they (i.e., HR practitioners) can outperform the structured interview with practice. Future research should examine whether belief in perfect prediction and the

superiority of holistic judgements may moderate the relationship between perceived usefulness and perceived ease of use such that these false beliefs results in weakening the impact of ease of use on perceived usefulness. If people believe their personal judgements are superior to a structured interview the interview will be seen as less useful, regardless of the ease of implementation.

Conclusions

In sum, the current study found support for the use of the technology acceptance model over the theory of planned behavior to explain use of structured interviews for screening job applicants. The more direct focus on aspects related to intent to implement and use structured interviews resulted in roughly equal prediction of structured interview use as the broader theory of planned behavior. In addition, the more focused approach of the technology acceptance model had the added benefits of being easier to measure and more parsimonious than the theory of planned behavior. Thus, law of parsimony asserts that the simpler explanation (i.e., the technology acceptance model) is the better model of structured interview use for screening applicants.

The ability of the technology acceptance model measures to be easily adapted to assess structured interview acceptance (a piece of selection technology) suggest that these measures may also be useful in explaining resistance to using other valid selection instruments. Further research should examine whether the usefulness of the technology acceptance model to explain structured interview resistance can be generalized to other selection tools such as cognitive ability and personality tests.

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APPENDIX A. TABLES

Table 1.

Levels of Interview Structure According to Huffcutt and Arthur (1994) Meta-Analysis

Interview Question Standardization Levels	
Level 1	No restrictions.
Level 2	Limited restrictions; often limiting the topics that can be covered during the interview (e.g., leadership).
Level 3	Predetermined list of question from which the interviewer can choose. Follow-up questions allowed.
Level 4	Exact same list of questions is asked to all candidates. No follow-up allowed.
Response Scoring Standardization Levels	
Level 1	Global/holistic rating of the candidate.
Level 2	Rating the candidate on multiple, preestablished criteria (e.g., teamwork, problem solving, leadership)
Level 3	Rating candidate's response to each question according to preestablished answers.

Note. Adapted from Huffcutt and Arthur (1994).

Table 2.

Comparison of the Theory of Planned Behavior and the Technology Acceptance Model

Characteristic	**Technology Acceptance Model (Davis, 1986; Davis et al. 1989)**	**Theory of Planned Behavior (Ajzen, 1991)**
Origin	Extension of the theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).	Extension of the theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).
Robustness of previous research and applications	Has been shown to be applicable to acceptance of a wide variety of technological advances (e.g., Mathieson, 1991).	Has been shown to be applicable to a wide variety of situations including intentions to use structured interviews (van der Zee et al., 2002).
Breath	Targeted focus; the model focuses on capturing ability of technology to be implemented (i.e., expectancy) and used to achieve desired outcomes (instrumentality).	Highly adaptable; argues that the factors that influence attitudes and beliefs are situation specific.
Inclusion of social and control variables	Does not overtly include social or control variables, however, aspects of these may be indirectly captured via perceived ease of use.	Directly includes social variables (i.e., social norms) and control (i.e., perceived behavioral control) in model.
Parsimony and measurement	More parsimonious; research on this theory often uses the same scales slightly modified to each situation.	Less parsimonious; this theory requires scales specifically designed for each situation.

Table 3.

Sample Demographics Information

Characteristic	
Age (years)	*M* = 36.60
	SD = 10.29
Gender	67% Male
Race	
White/Caucasian	78%
Black/African American	7%
Hispanic	7%
Asian/Pacific Islander	6%
Other	2%
Area of Highest Degree	
Business/Business Administration	45%
Human Resources	7%
Other	48%
Highest Degree	
Some high school, no diploma	<1%
High school graduate, diploma or the equivalent	4%
Some college credit, no degree	11%
Trade/technical/vocational training	4%
Associate degree	10%
Bachelor's degree	53%
Master's degree	15%

Note. N = 227. Table 3 continued on following page.

Table 3 (continued).

Professional degree	2%
Doctorate degree	<1%
Tenure at Current Organization	
< 1 year	1%
1-2 years	21%
3-5 years	28%
> 5 years	51%
Aspects of the Hiring Process Involved In	
Interviewing applicants	100%
Reviewing applications/resumes	72%
Onboarding	57%
Recruiting	48%
Assisting/administering other selection tools	26%
Background checks	24%
None of the above	0%
Number of employees they were involved in hiring at their current organization	
1-10	56%
11-20	15%
> 20	29%
Number of applicants they interviewed at their current organization	
1-10	36%
11-20	22%
> 20	41%

Note. $N = 227$. Table 3 continued on following page.

Table 3 (continued).

Current Organization's Industry	
Service	43%
Manufacturing	17%
Education	15%
Government	5%
Self-Employed	3%
Other	18%
Current Organization's Sector	
Private	68%
Public	30%
Unsure	2%

Note. $N = 227$.

Table 4.

Perceived Usefulness Items

Davis (1989) Item	Adapted Item
1. Using Chart-Master in my job would enable me to accomplish tasks more quickly.	Using structured interviews for hiring would enable me to identify applicants who will succeed on the job.
2. Using Chart-Master would improve my job performance.	Using structured interviews for hiring would enable me to identify applicants who will succeed on the job.
3. Using Chart-Master in my job would increase my productivity.	Using structured interviews for hiring would enable me to select the best candidates.
4. Using Chart-Master would enhance my effectiveness on the job.	Using structured interviews would make me effective at selecting high-performing employees.
5. Using Chart-Master would make it easier to do my job.	Using structured interviews would make selecting quality employees easy.
6. I would find Chart-Master useful in my job.	I would find structured interviews useful for identifying quality applicants.

Note. Original items were adapted from "Perceived usefulness, perceived ease of use, and user acceptance of information technology," by F. D. Davis, 1989, *MIS quarterly*, *13*(3), p. 340. Copyright 1989 by MIS Quarterly.

Table 5.

Perceived Ease of Use Items

Davis (1989) Item	Adapted Item
1. Learning to operate Chart-Master would be easy for me.	Learning to use structured interviews would be easy for me.
2. I would find it easy to get Chart-Master to do what I want it to do.	I would find it easy to use a structured interview in my hiring situation.
3. My interaction with Chart-Master would be clear and understandable.	Using structured interviews would be easy and understandable.
4. I would find Chart-Master to be flexible to interact with.	I would find structured interviews flexible to work with.
5. It would be easy for me to become skillful at using Chart-Master.	It would be easy for me to become skillful at using structured interviews.
6. I would find Chart-Master easy to use.	I would find structured interviews easy to use.

Note. Original items were adapted from "Perceived usefulness, perceived ease of use, and user acceptance of information technology," by F. D. Davis, 1989, *MIS quarterly*, *13*(3), p. 340.

Table 6.

Subjective Norms Items

van der Zee et al. (2002) Item	Adapted Item
1. People at work think I should work in the described way.	People at work would agree I should use structure interviews to assess applicants.
2. People at work would disapprove it when I would work in the described way.	People at work would disapprove of me using structured interviews to assess applicants.
3. People at work would look down upon me when I would work in the described way.	People at work would frown on using structured interviews to assess applicants.

Note. Original items were adapted from "Why are structured interviews so rarely used in personnel selection?," by K. I. Van der Zee, A. B. Bakker, & P. Bakker, 2002, *Journal of Applied Psychology, 87*, p. 184. Copyright 2002 by the American Psychological Association.

Table 7.

Perceived Control Items

van der Zee et al. (2002) Item	Adapted Item
1. I am able to work in the described way if I want to.	I am able to use structured interviews to assess applicants if I want to.
2. I possess the knowledge to perform selection interviews in the described way.	I possess the knowledge needed to perform structured interviews.
3. I think it is difficult to perform selection interviews in the described way.	I think it is difficult to perform structured interviews.
4. I can decide by myself to work in the described way.	I can decide by myself to use structured interviews.
5. I possess enough skills to work in the described way.	I possess enough skills to use structured interviews.
6. The company has enough skills and resources to perform selection procedures according to the methodology that is described in the case.	My company has the skills and resources needed to use structured interviews to assess job applicants.

Note. Original items were adapted from "Why are structured interviews so rarely used in personnel selection?," by K. I. Van der Zee, A. B. Bakker, & P. Bakker, 2002, *Journal of Applied Psychology, 87*, p. 184. Copyright 2002 by the American Psychological Association.

Table 8.

Behavioral Intention Items

van der Zee et al. (2002) Item	Adapted Item
1. When I have to perform a selection procedure during the next month I will work in the described way.	If I were to be involved in selecting new employees I would work in the described way.
2. I intend to apply some of the elements of the described method in my own selection procedures.	I intend to apply some of the elements from the described method in my own selection procedures.
3. I expect that I am going to work in the described way during the next months.	I expect that I would select employees using the structured interview method described above.

Note. Original items were adapted from "Why are structured interviews so rarely used in personnel selection?," by K. I. Van der Zee, A. B. Bakker, & P. Bakker, 2002, *Journal of Applied Psychology, 87*, p. 184. Copyright 2002 by the American Psychological Association.

Table 9.

Descriptive Statistics, Scale Reliabilities, and Correlations Between Model Variables

Variable	*M*	*SD*	1	2	3	4	5	6	7
1. Perceived Usefulness	3.23	1.08	**.92**						
2. Perceived Ease of Use	3.89	0.71	.46***	**.78**					
3. Subjective Norm	2.98	1.10	.52***	.29***	**.79**				
4. Perceived Control	4.01	.64	.12	.52***	.27***	**.71**			
5. Attitude	3.40	1.00	.86***	.52***	.57***	.18**	**.93**		
6. Intention	3.24	1.23	.82***	.50***	.57***	.13*	.85***	**.89**	
7. Behavior	2.56	.83	.46***	.27***	.33***	.06	.49***	.52***	**.69**

Note. $N = 227$. * indicate $p < .05$. ** indicates $p < .01$. *** indicates $p < .001$. *M* and *SD* are used to represent mean and standard deviation, respectively. Initial scale reliabilities are reported on the diagonal.

Table 10.

Correlations Between Theory of Planned Behavior Variables

Variable	1	2	3	4
1. Attitude				
2. Subjective Norm	.81**			
3. Perceived Control	.09	.24*		
4. Intention	.92**	.84**	.06	
5. Behavior	.59**	.65**	.07	.64**

Note. $N = 213$. * indicates $p < .01$. ** indicates $p < .001$.

Table 11.

Correlations Between Revised Technology Acceptance Model Variables

Variable	1	2	3
1. Perceived Usefulness			
2. Perceived Ease of Use	.37**		
3. Intention	.37**	.88**	
4. Behavior	.25*	.56**	.63**

Note. $N = 225$. * indicate $p < .05$. ** indicates $p < .01$.

APPENDIX B. FIGURES

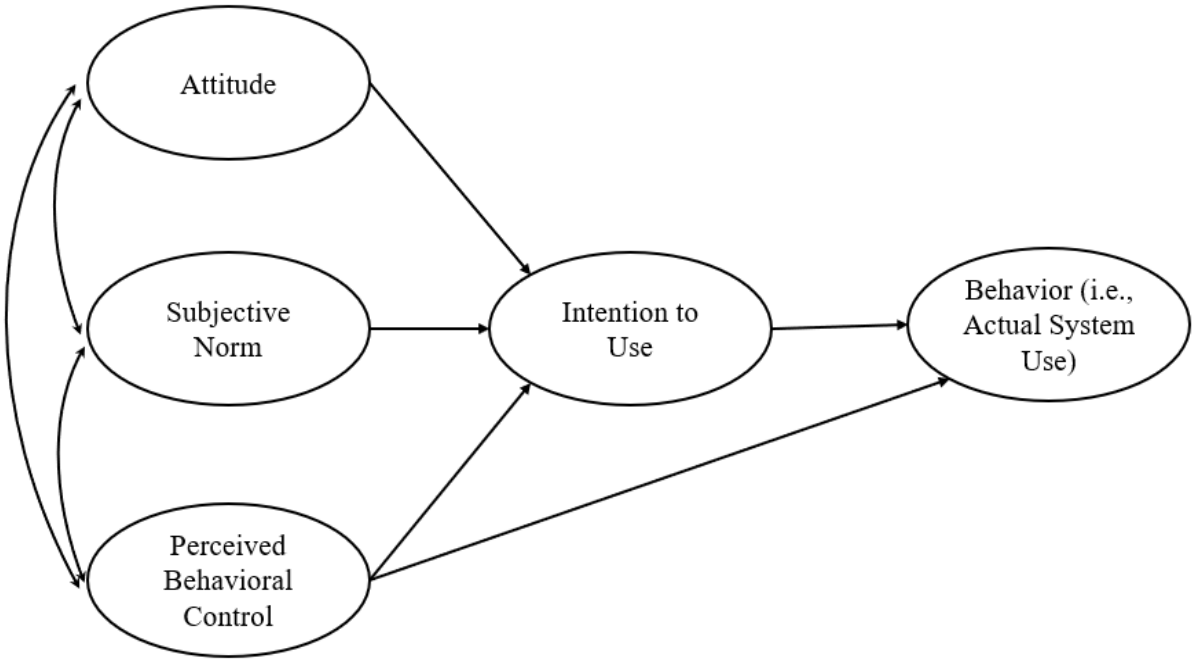


Figure 1. Theory of planned behavior (Ajzen, 1991).

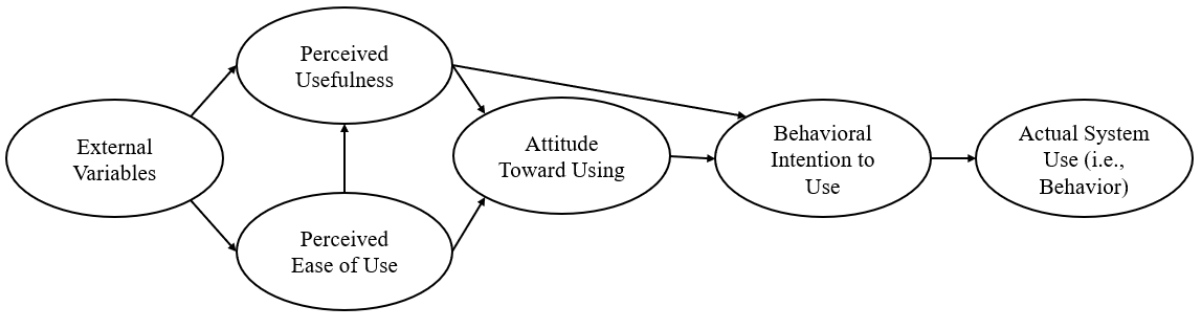


Figure 2. Technology acceptance model (Davis et al., 1989).

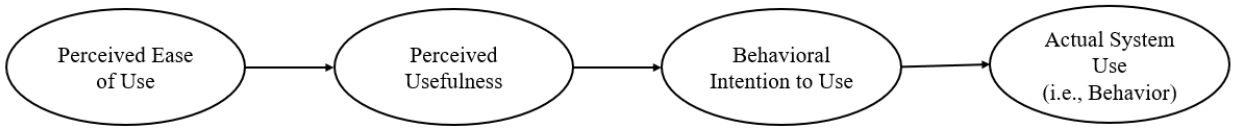


Figure 3. Revised technology acceptance model. Supported by Szajna (1996).

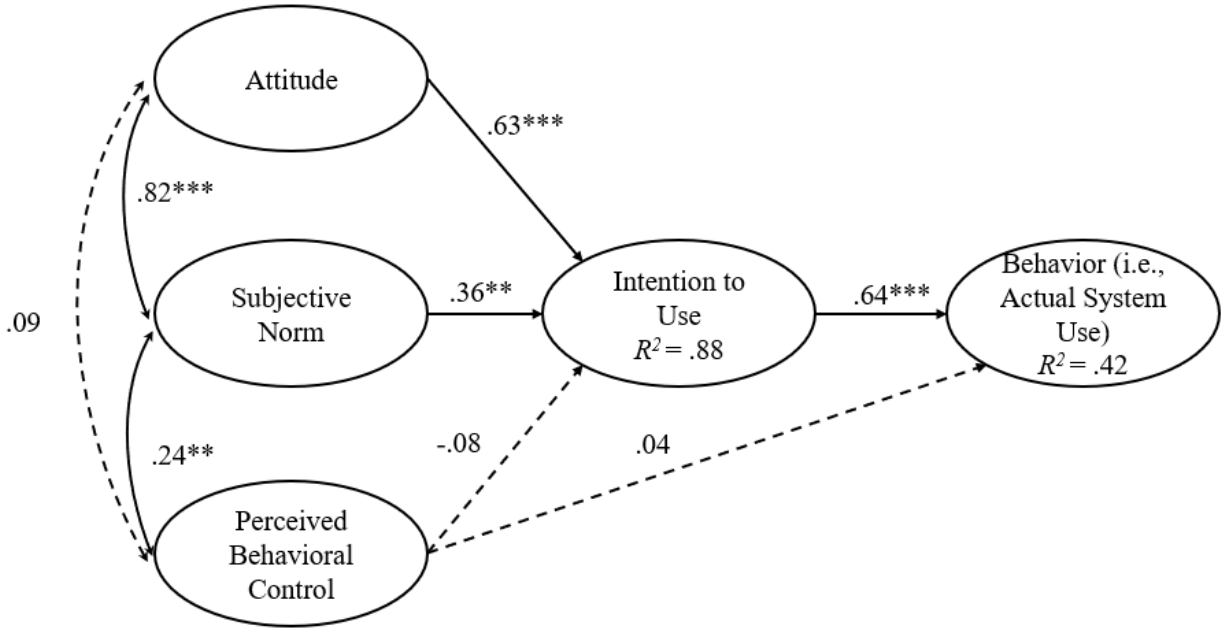


Figure 4. Theory of planned behavior (Ajzen, 1991) structural equation model of structured interview use among employees with hiring experience. $N = 213$. Standardized robust maximum likelihood parameter estimates. * indicates $p < .05$. ** indicates $p < .01$. *** indicates $p < .001$. Dash lined represent non-significant paths.

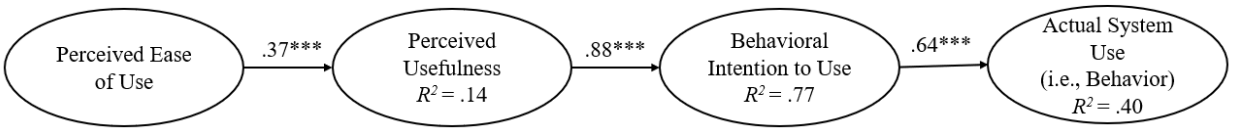


Figure 5. Revised technology acceptance model structural equation model of structured interview use among employees with hiring experience. $N = 223$. Standardized robust maximum likelihood parameter estimates. *** indicates $p < .001$.

APPENDIX C. SURVEY ITEMS

Initial Screening Questions

1. Which of the following best describes your current employment status (outside of Mturk)?
    - Full-time employee
    - Part-time employee (at least 20 hours a week)
    - Part-time employee (less than 20 hours a week)
    - Not employed, looking for work
    - Note employed, not looking for work
    - Retired
    - Disabled, not able to work
2. Which of the following best describes the location at which you complete the majority of your non-Mturk work?
    - Not applicable (I am not employed outside of Mturk)
    - At home
    - Traditional office setting
    - Manufacturing facility
    - Retail store or Restaurant
    - Education
    - Other
3. At your most recent employer, have you ever been involved in interviewing applicants for an open position?
    - Yes

- No
- No, but I would be interested in doing so.

Questions Regarding Structured Interview Description

Directions: To check your understanding of what we mean by a "structured interview" please answer the following True-False questions, based on the description of a structured interview provided above. (Correct answers are included in parentheses).

1. The interviewer must ask the same questions to all applicants. (True)
2. The interviewer is allowed to ask follow-up questions for clarification. (False)
3. The interviewer rates an applicant's response to each question according to pre-established example responses. (True)

Perceived Usefulness (adapted from Davis, 1989)

1. Using structured interviews for hiring would enable me to select the best candidates.
2. Using structured interviews for hiring would enable me to identify applicants who will succeed on the job.
3. Using structured interviews would make me effective at selecting high-performing employees.
4. Using structured interviews would make selecting quality employees easy.
5. I would find structured interviews useful for identifying quality applicants.

Perceived Ease of Use (adapted from Davis, 1989)

1. Learning to use structured interviews would be easy for me.
2. I would find it easy to use a structured interview in my hiring situation.

3. Using structured interviews would be easy and understandable.
4. I would find structured interviews flexible to work with.
5. It would be easy for me to become skillful at using structured interviews.
6. I would find structured interviews easy to use.

Attitudes (van der Zee et al., 2002)

I think the structured interview described above is:

1. bad/good
2. unpleasant/pleasant
3. insensible/sensible
4. ineffective/effective
5. unprofessional/professional
6. weak/strong
7. inefficient/efficient

Subjective Norms (adapted from van der Zee et al., 2002)

1. People at work would agree I should use structure interviews to assess applicants.
2. People at work would disapprove of me using structured interviews to assess applicants.
3. People at work would frown on using structured interviews to assess applicants.

Perceived Control (adapted from van der Zee et al., 2002)

1. I am able to use structured interviews to assess applicants if I want to.
2. I possess the knowledge needed to perform structured interviews.
3. I think it is difficult to perform structured interviews.
4. I can decide by myself to use structured interviews.

5. I possess enough skills to use structured interviews.
6. My company has the skills and resources needed to use structured interviews to assess job applicants.

Intentions (adapted from van der Zee et al., 2002)

1. If I were to be involved in selecting new employees I would work in the described way.
2. I intend to apply some of the elements from the described method in my own selection procedures.
3. I expect that I would select employees using the structured interview method described above.

Behavior

1. **Question Structure:** Think back on the last time you took part in interviewing someone for a job. Which of the following options most closely resembles how structured the interview questions were.
    - **No structure**: the interviewer was free to ask the applicant whatever they thought was important.
    - **Limited structure**: the interviewer was given some restrictions on what they could ask, possibly in the form of a list of topics that could be covered during the interview.
    - **Moderate structure**: the interviewer was given a list of potential questions they could ask; follow-up questions, or additional probing questions were allowed.
    - **Fully structured**: the interviewer asked all applicants the same questions; no follow-up questions were allowed.

2. **Scoring Structure**: Think back on the last time you took part in interviewing someone for a job. Which of the following options most closely resembles how structured the interview scoring method was.
    - **No structure**: the interviewer was asked to make an overall, global judgement about the candidate (e.g., rating the candidate on a scale from 1 to 5 or circling either "recommended for hire" or "not recommended for hire")
    - **Moderate structure**: the interviewer was asked to rate the candidate on multiple, preestablished criteria (e.g., rating them on teamwork, problem solving, and leadership ability)
    - **Fully structured**: the interview was asked to rate the candidate's response to each question according to example answers or preestablished criteria.

Demographic Questions

1. What is your current age in years?
2. What is your sex?
    a. Male
    b. Female
    c. Other or Prefer not to respond
3. What is your ethnicity?
    a. White/Caucasian
    b. Black/African American
    c. Hispanic
    d. Asian/Pacific Islander
    e. Native American

f. Other (please specify)

4. What is the highest degree or level of schooling you have completed? If currently enrolled, please select highest degree received.
    a. No schooling completed
    b. Some high school, no diploma
    c. High school graduate, diploma or the equivalent
    d. Some college credit, no degree
    e. Trade/technical/vocational training
    f. Associate degree
    g. Bachelor's degree
    h. Master's degree
    i. Professional degree
    j. Doctorate degree
5. What area is your highest degree in?
6. How long have you been working for your current (non-MTurk) organization?
    a. Less than 1 year
    b. 1-2 years
    c. 3-5 years
    d. More than 5 years
7. What aspects of the hiring process have you been involved with at your current (non-MTurk) organization?
    a. Recruiting applicants
    b. Reviewing applications/resumes

   c. Background checks
   d. Interviewing applicants
   e. Helping to administer or review other selection tests (i.e., intelligence tests, personality inventories, assessment centers, work samples, etc.)
   f. Onboarding new employees
   g. None of the above

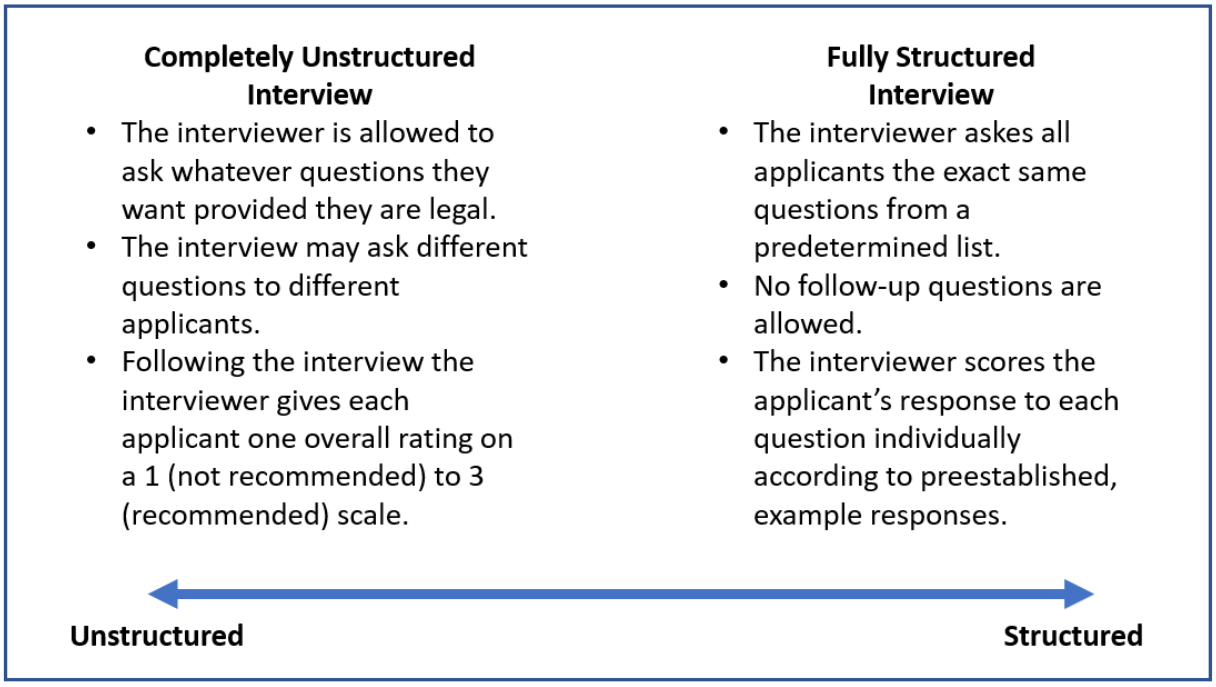
8. Approximately how many employees have you been involved in hiring at your current (non-MTurk) organization?
   a. (Responses will range from 0 to over 100 in intervals of 5)
9. Approximately how many applicants have you interviewed at your current (non-MTurk) organization?
   a. (Responses will range from 0 to over 100 in intervals of 5)
10. Which industry most accurately describes your current primary (non-MTurk) employer?
   a. Service
   b. Manufacturing
   c. Education
   d. Government
   e. Self-employed
   f. Other
11. Would you consider your current (non-MTurk) organization to be part of the public sector or private sector?
   a. Public Sector
   b. Private Sector

c. Unsure

APPENDIX D. INTERVIEW DESCRIPTIONS

In this research, we are interested in your opinions about using employment interviews to screen potential job applicants. While interviews are a common method used to screen job applicants, the degree to which the interview is structured (extent to which questions are predetermined and detailed scoring keys are used) varies widely.

Below are descriptions of a fully structured and completely unstructured interview. ***Please carefully read the descriptions below*** *and then answer the following True-False questions to check your understanding. One you have correctly responded to the items below, you will move onto the remainder of the survey.*



APPENDIX E. IRB LETTER

BGSU
BOWLING GREEN STATE UNIVERSITY
Office of Research Compliance

DATE:	March 15, 2019
TO:	Samantha Nesnidol
FROM:	Bowling Green State University Institutional Review Board
PROJECT TITLE:	[1380841-3] Practitioner Resistance to Structured Interviews: A Comparison of Two Models
SUBMISSION TYPE:	Amendment/Modification
ACTION:	DETERMINATION OF EXEMPT STATUS
DECISION DATE:	March 15, 2019
REVIEW CATEGORY:	Exemption category # *2*

Thank you for your submission of Amendment/Modification materials for this project. The Bowling Green State University Institutional Review Board has determined this project is still exempt from IRB review according to federal regulations AND that the proposed research has met the principles outlined in the Belmont Report.

Note that changes cannot be made to exempt research because of the possibility that proposed changes may change the research in such a way that it no longer meets the criteria for exemption. If you want to make changes to this project, contact the Office of Research Compliance for guidance.

We will retain a copy of this correspondence within our records.

If you have any questions, please contact the Office of Research Compliance at 419-372-7716 or orc@bgsu.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Bowling Green State University Institutional Review Board's records.