Journal of Occupational and Organizational Psychology (2016), 89, 223–248

The British Psychological Society

www.wileyonlinelibrary.com

How quickly do interviewers reach decisions? An examination of interviewers' decision-making time across applicants

Rachel E. Frieder[1]*, Chad H. Van Iddekinge[2] and Patrick H. Raymark[3]

[1]Old Dominion University, Norfolk, Virginia, USA
[2]Florida State University, Tallahassee, Florida, USA
[3]Clemson University, Clemson, South Carolina, USA

We develop and test a model of factors that may account for how quickly interviewers make decisions about job applicants. Data were collected from 166 interviewers who interviewed applicants (N = 691) at a university career centre. Results revealed that interviewers who possessed more experience and higher interviewing efficacy tended to make quicker decisions, as did interviewers who engaged in more rapport building. In contrast, use of question consistency (a key element of structured interviews) tended to increase the time interviewers took to make their decisions. Consistent with cognitive load theory, interview decision time had a curvilinear relationship with applicant order. Specifically, decision time increased as interviewers progressed through the first few applicants, but after about four applicants, decision time reached an asymptote and then began to decrease as interviewers evaluated additional applicants. These findings have implications for the design of future interview research (e.g., accounting for intra-interviewer changes in decision-making time across applicants), as well as for the use of interviews in organizations (e.g., designing interviews and interview schedules that discourage quick decisions).

Practitioner points

- The belief that most interviewers make very quick decisions about job applicants may be overstated.
- Interviewers with more experience and higher interviewing efficacy tend to make quicker decisions than interviewers with less experience and lower efficacy. Organizations may want to conduct refresher training for interviewers that emphasizes the value of gathering information throughout the entire interview.
- The way interviews are designed can promote or inhibit quick decisions. For example, less structured interviews that encourage interviewers to build rapport with applicants at the outset of the interview appear to lead to quicker decisions. In contrast, structured interviews that require interviewers to ask every applicant the same questions appear to discourage quick decisions.
- Interviewers tend to take longer to evaluate applicants near the beginning of their interview schedule and take less time to evaluate applicants near the end of their schedule. This may prevent applicants who appear later in the schedule from having a full opportunity to perform. Organizations may benefit from limiting the number of interviews an interviewer conducts in immediate succession to around four, which may decrease reliance on more automatic information processing strategies.

*Correspondence should be addressed to Rachel E. Frieder, Department of Management, 2171 Constant Hall, Norfolk, VA 23529, USA (email: rfrieder@odu.edu).

DOI:10.1111/joop.12118

The employment interview remains one of the most common methods organizations use to assess and help select job applicants (e.g., König, Klehe, Berchtold, & Kleinmann, 2010; Wilk & Cappelli, 2003). When carefully designed, interviews can be reliable and predict criteria such as future job performance (e.g., Huffcutt & Arthur, 1994; McDaniel, Whetzel, Schmidt, & Maurer, 1994; Wiesner & Cronshaw, 1988). Furthermore, interviews tend to produce relatively small subgroup differences with respect to ethnicity and gender (e.g., Huffcutt & Roth, 1998) and are generally well received by job applicants (e.g., Hausknecht, Day, & Thomas, 2004).

Despite the potential benefits of using interviews for selection, research has identified various biases and rating tendencies that can affect interviewers' evaluations (e.g., Kane, Bernardin, Villanova, & Peyrefitte, 1995; Lance, LaPointe, & Fisicaro, 1994; Wexley, Yukl, Kovacs, & Sanders, 1972; Woehr & Roch, 1996; Wong & Kwong, 2005). For example, a persistently held belief is that interviewers tend to make decisions about applicants only a few minutes into the interview (e.g., Arvey & Campion, 1982; Buckley & Eder, 1988; Huffcutt, 2010; Judge, Higgins, & Cable, 2000; Springbett, 1958). The concern with these quick decisions is that interviewers may be unduly influenced by their initial impressions of an applicant and thus fail to adequately consider information that is uncovered later in the interview.

Although initial reactions may be accurate in some instances (e.g., consider the literature on 'thin slices' of behaviour; Ambady & Rosenthal, 1993), there are several reasons to be cautious about the appropriateness of these quick judgments within the interview context (Raymark & Van Iddekinge, 2013). For one, an applicant may start the interview really well or really poorly, but then perform quite differently during the remainder of the interview. Relatedly, content covered in the early part of the interview (e.g., basic job qualifications) could differ substantially from content covered later in the interview (e.g., interpersonal skills). Beyond the issue of the adequacy of behavioural sampling, another concern is that by making quick decisions, interviewers do not give applicants a full opportunity to perform, which is a key element of procedural justice (Arvey & Sackett, 1993; Dipboye & de Pontbriand, 1981; Gilliland, 1993).

Although it is commonly believed within popular press (e.g., Brafman & Brafman, 2008; Gladwell, 2005; Haden, 2011; Heathfield, 2012) and academic literatures (e.g., Buckley & Eder, 1988; Judge *et al.*, 2000) that interviewers make decisions very early in the interview, empirical research on this issue is extremely limited. In fact, much of this belief appears to be rooted in the results of a small pilot study ($N = 20$ interviews) conducted by Springbett (1954), who found that the average interview decision time was about 4 min. We know of only two subsequent studies (both conducted in a laboratory setting) (Tucker & Rowe, 1977; Tullar, Mullins, & Caldwell, 1979) that attempted to address issues surrounding whether and how interviewers make so-called snap decisions. Further, there has been no research on individual differences in how quickly interviewers make decisions or on factors that might account for such differences. These gaps are notable given that decision-making time might not be uniform across interviewers, and delineating the factors that may lead some interviewers to make decisions relatively early in the interview could have important implications for organizations and applicants (e.g., for interviewer selection and training).

The purpose of this study was to examine how quickly interviewers make decisions about applicants, as well as to examine factors that may affect interviewers' decision-making time. We extend prior research in two main ways. First, the results of this study will shed light on whether there is significant variance in decision-making time across interviewers, as well as on factors that may account for this variation. Specifically, we

examine individual differences in interviewer training, experience, and efficacy, as well as elements of interview structure (e.g., question consistency, evaluation standardization), as possible drivers of between-interviewer variance in decision-making.

Second, the typical design in the interview literature (including the few previous studies on how quickly interviewers make decisions) has been to have a large number of interviewers rate one or two job applicants or current employees and then aggregate the ratings across interviewers and applicants. However, interviewers often interview several applicants for a position. For example, they may conduct a slate of interviews over the course of a day or a week (e.g., as part of an assessment centre). In such cases, the way interviewers make decisions (including the amount of time they take to decide whether an applicant might be suitable) could change across applicants. Interestingly, there is very little or no research concerning whether and how interviewers' decision-making time changes (or not) across interviews. We address this key gap by examining within-interviewer changes in decision-making time across slates of interviews.

Theoretical foundations and hypothesis development

Figure 1 displays a model of factors that may influence how quickly interviewers make decisions about applicants' suitability. The model includes interview structure and interviewer individual differences (i.e., experience, training, efficacy) as between-interviewer factors and interview order (i.e., the order in which interviewers interview a slate of applicants) as a within-interviewer factor. We hypothesize that structured interviews will be related to longer decision-making times, whereas interviewer differences, namely efficacy, experience, and training, will be negatively related to decision-making time. We also expect that the order in which interviews are conducted, a within-interviewer factor, will demonstrate a curvilinear relationship with decision-making time.

Cognitive load theory (Bargh, 1984; Paas & Ayres, 2014; Shiffrin & Schneider, 1977) provides the primary basis for our model. According to this theory, individuals have an unbounded long-term memory capacity, but a relatively limited working memory capacity (see also Miller, 1956; Simon & Gilmartin, 1973). Tasks that require individuals to attend to and process each element or piece of information individually require controlled, as

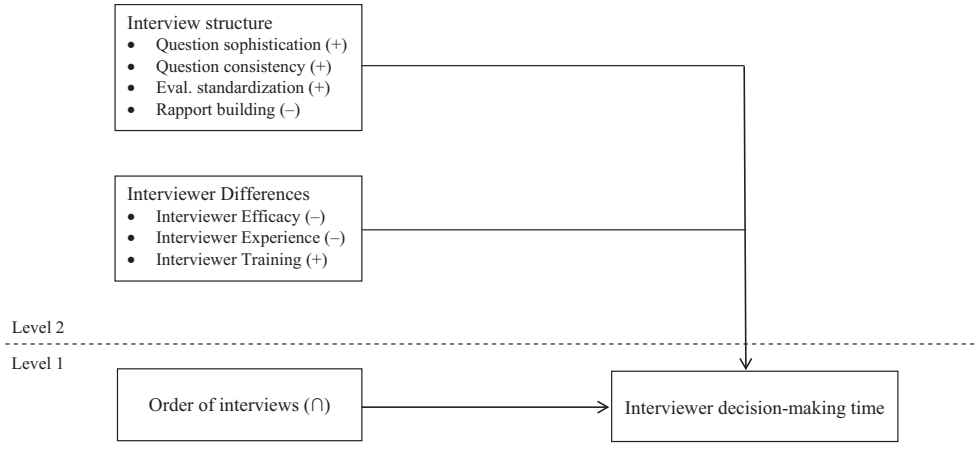

Figure 1. Model of potential factors that affect how quickly interviewers make decisions.

opposed to automatic, processing (Bargh, 1984). Such tasks are considered cognitive load intensive as they require high levels of attention and working memory (Schneider & Shiffrin, 1977; Shiffrin & Schneider, 1977; Tuovinen & Sweller, 1999). In contrast, the use of cognitive schema enables individuals to categorize large amounts of information into more manageable parcels, thereby enhancing the likelihood of automatic processing and minimizing the demands on working memory (Shiffrin & Schneider, 1977). Thus, if incoming information can be processed using an existing schema, information processing will be more automatic and less cognitively demanding.

However, before such schema can develop, individuals must process novel information using their finite working memories. The burden on working memory to process information or tasks is affected by the intrinsic cognitive load of the information or task (i.e., nature of the information), as well as by the extraneous cognitive load (i.e., manner in which information or task is presented) (Sweller, van Merriënboer, & Paas, 1998; Tuovinen & Sweller, 1999). Unless individuals can draw upon an existing cognitive schema, tasks that require simultaneous processing of numerous informational elements (i.e., high element interactivity) will be difficult to process (i.e., cognitively demanding).

Between-interviewer factors

We begin by discussing two sets of factors (i.e., interview structure and interviewer characteristics) that are inherent in every interview and may help account for between-interviewer variation in how quickly interviewers make decisions.

Interview structure

Researchers have suggested that individual differences in how interviewers select and attend to information can be minimized by designing interviews with high degrees of structure (e.g., Highhouse, 2008; Sackett & Lievens, 2008). Interview structure refers to the degree to which the content of the interview is job related, the conduct of the interview is structured and consistent across applicants, and the evaluation of applicants' performance is quantified and based on a standard set of criteria (Campion, Palmer, & Campion, 1997). By imposing high amounts of structure, interviewers may be required to engage in more deliberate and effortful informational search and processing. Moreover, structured interviews are thought to place additional cognitive demands on interviewers than less structured interviews (O'Brien & Rothstein, 2011). Thus, in general, the heightened cognitive demands consistent with the deliberate and diligent information processing required of structured interviews should delay interviewers' decision-making.

Researchers have identified various dimensions of interview structure (e.g., Campion *et al.*, 1997; Chapman & Zweig, 2005; Huffcutt & Arthur, 1994), three of which seem particularly relevant to our focus. *Question sophistication* involves the use of more complex question formats (e.g., situational and past behaviour questions) and limiting interviewers' use of prompting and probing questions. Sophisticated questions are cognitively demanding (Van Iddekinge, Raymark, & Roth, 2005) and require fairly lengthy, multipart responses from applicants, which should prolong interviewers' search for information. Moreover, the ability to organize novel information becomes increasingly complex as the amount of unique information increases (Sweller, 2003, 2004; van Merriënboer & Sweller, 2005). Thus, question sophistication should increase the cognitive load of the information gathered. As a result, we expect that question sophistication will be associated with longer decision-making time.

Question consistency refers to the extent to which interviewers ask the same questions, in the same order, to each applicant. This standardization of interview content helps to ensure that all applicants are treated the same way. Question consistency also may divert interviewers' attention away from making quick decisions by requiring them to focus on the list of predetermined interview questions, which, in turn, may cause a delay in their decisions. Question consistency requires that informational searches are serial, and consequently, cognitively demanding by nature (Bargh, 1984; Shiffrin & Schneider, 1977). More specifically, although serial processing works to reduce cognitive demands when informational elements are discrete (i.e., unrelated), as the complexity and interactivity of informational elements increases, serial processing becomes more cognitively demanding (van Merriënboer & Sweller, 2005). Given the complexity and interactivity of the information gathered throughout an interview, we expect that question consistency will be associated with longer decision-making time.

The third element of interview structure, *evaluation standardization*, reflects the extent to which interviewers use standardized scoring procedures to evaluate applicants (Campion *et al.*, 1997). This involves using objective rating scales (e.g., behaviourally anchored scales) to evaluate applicants' responses and then combining interviewers' ratings using statistical methods, such as by summing the ratings or weighting them according to their importance to the job. Having interviewers evaluate applicants' responses to individual questions (or on each dimension assessed in the interview) may inhibit interviewers from forming broad evaluations on which quick decisions may be based. In addition, because interviewers who conduct such interviews typically make their ratings after completion of the interview (based on notes taken during the interview), evaluation standardization should encourage interviewers to delay their decision about an applicant, rather than make quick decisions based on their 'gut reactions'. As with question consistency, evaluation standardization may encourage interviewers to engage in more controlled (as opposed to automatic) and effortful informational search and retrieval (Bargh, 1984; Dipboye, 1992; Shiffrin & Schneider, 1977). Moreover, cognitive load theory suggests that working memory would be taxed by a requirement to integrate and evaluate large amounts of disorganized information using a standardized evaluation form. Given that applicants are likely to provide information in an unorganized manner (Tuovinen & Sweller, 1999), evaluation standardization should increase the cognitive load of the interview because it requires interviewers to process, categorize, and evaluate novel information using a standard set of criteria. Taken together, evaluation standardization should prolong interviewers' decision-making.

Hypothesis 1: Interviewers who use (a) sophisticated questions, (b) consistent questions, (c) and standardized evaluation criteria will take longer to make decisions about applicants than interviewers who do not use these elements of structured interviews.

We also examine the potential role of *rapport building*, which is a key characteristic of *unstructured* interviews (Chapman & Zweig, 2005). In structured interviews, the questions focus on job-relevant attributes and behaviours, and interviewers are discouraged from asking questions that are not related to the job. In contrast, interviewers who conduct less structured interviews frequently engage applicants in 'small talk' to help put candidates at ease and to build rapport. For example, interviewers may ask applicants questions about their hobbies and interests to help 'get to know' the applicant.

Unfortunately, these types of questions often are not job related and thus can introduce extraneous variance into interviewers' judgments. Further, the affective reactions that may result from sharing personal information may engender quick judgments. Specifically, research has demonstrated that affective judgments (e.g., similarity, liking) form relatively rapidly and are likely based on more automatic processing (Bargh, 1984; Schneider & Shiffrin, 1977; Zajonc, 1980). Given that such affective judgments seem to occur without much thought or conscious awareness, they may be difficult to reverse once made (Barrick, Swider, & Stewart, 2010; Shiffrin & Schneider, 1977). Thus, we expect interviews that involve extensive rapport building will engender quicker decisions than more structured interviews.

Hypothesis 1d: Interviewers who engage in rapport building will make quicker decisions about applicants than interviewers who do not.

Interviewer individual differences

According to cognitive load theory, whether individuals find a task cognitively demanding depends on the extent to which they have developed schema for processing task-related information. Therefore, we also investigate several *interviewer* characteristics that may affect how quickly they make decisions about applicants' suitability.

Interviewing efficacy. Interviewing efficacy refers to interviewers' belief concerning their capability to select high-quality applicants (Chapman & Zweig, 2005). Theory and research on self-efficacy (e.g., Bandura, 1977) suggest that people who possess higher levels of self-efficacy tend to be more decisive and exert less effort when making decisions than people with lower levels of self-efficacy. In contrast, interviewers who are less efficacious may have difficulty making decisions about applicants. Other research has found that people who are highly efficacious are less likely to seek information from others, tend to consider fewer alternatives, and take less time to make decisions than people who are less efficacious (e.g., Sonnentag & Volmer, 2009; Stone, 1994).

Cognitive load theory may help to explain these effects. Specifically, interviewers who believe they are able to select high-quality applicants are likely to develop automated schema for doing so, because they believe that certain aspects of applicant performance are consistent and easily identifiable across all interviews (van Merriënboer, Kirschner, & Kester, 2003). Therefore, rather than having to tax their finite working memory to process the unique and unorganized information revealed throughout the interview, efficacious interviewers will apply a pre-formulated set of criteria to evaluate applicants. This, in turn, should reduce the cognitive demands on self-efficacious interviewers by making their search for and processing of applicant information more automatic and less effortful. In contrast, interviewers who are not as self-efficacious may be unsure of what criteria to use to evaluate applicants, how to interpret, organize and weight the myriad information they acquire, or may feel like they must consider every piece of information gathered 'just to be sure' about an applicant. This leads to our next hypothesis.

Hypothesis 2: Interviewers with higher efficacy will make quicker decisions about applicants than interviewers with lower efficacy.

Interviewing experience. Theory and research suggest that experience is important for learning and developing task-relevant knowledge and skills (e.g., Borman, Hanson, Oppler, Pulakos, & White, 1993; Schmidt, Hunter, & Outerbridge, 1986; Tesluk & Jacobs, 1998). Furthermore, cognitive load theory suggests that information processing becomes more automatic (i.e., less cognitively demanding) as people gain experience within a particular domain (Schneider & Shiffrin, 1977). In an interview context, interviewers often have to evaluate novel responses to interview questions and make fine distinctions among different levels of applicant performance. Thus, experienced interviewers should be more efficient in classifying applicant performance because they are more likely to have more comprehensive schema for evaluating the nuances of applicant performance. Despite the intense cognitive demands of interviews (Dipboye, 1992), we hypothesize that more experienced interviewers will make decisions quicker decisions than their less experienced peers because experienced interviews should have more developed, integrative, and automatic schema for evaluating an applicant's suitability.

Hypothesis 3: More experienced interviewers will make quicker decisions about applicants than less experienced interviewers.

Interviewer training. Interviewer training programmes often focus on concepts and techniques that discourage quick decision-making (e.g., note taking). Such programmes also frequently cover rating errors such as primacy and recency effects and emphasize that interviewers should base their decisions on how applicants perform throughout the entire interview. In fact, studies have found that interviewers with more training tend to ask more questions (Gatewood, Lahiff, Deter, & Hargrove, 1989), use more of the allotted interview time (Stevens, 1998), and conduct longer interviews (Chapman & Zweig, 2005). Similar to interview structure, interviewer training is thought to encourage interviewers to engage in more controlled informational search. As opposed to automatic detection, controlled search involves heightened cognitive demands in the form of increased attentional capacity, active detection, and effortful search (Schneider & Shiffrin, 1977; Shiffrin & Schneider, 1977). In support, cognitive load theory suggests that instructional interventions can increase the overall cognitive load of interviews. Consequently, we hypothesize the following:

Hypothesis 4: Interviewers who have had more training will take longer to make decisions about applicants than interviewers with less training.

Interview order as a within-interviewer factor

The primary goal of selection interviews is to accurately evaluate and properly identify candidates who appear best-suited for the job. The information sampling model of personnel decisions (Motowidlo, 1986) posits that interviewers formulate their judgments by selecting bits of information about an applicant over the course of the interview. The accuracy of interviewers' judgments is thought to be enhanced when based on a representative sample of all possible information about the applicant. As such, interviewers have the cognitively demanding task of attending to, interpreting, encoding, retrieving, and integrating information about the applicant and then using that information to make an effective decision about the person (Dipboye, 1992; Motowidlo,

1986). Furthermore, interviewers often have to interview multiple applicants for a particular opening, such as part of an assessment centre or during career and job fairs. Therefore, above and beyond the cognitive demands associated with gathering and processing information during *one* interview, slates of interviews will be even more cognitively demanding as interviewers try to gather, categorize, recall, and synthesize information based on interviews with many different applicants.

Thus, based on the information sampling model of personnel decisions (Motowidlo, 1986), we expect that the amount of time interviewers take to make decisions initially will increase as they progress through the first few applicant interviews. For example, for the first applicant they interview, interviewers only have to select, attend to, and recall information regarding that applicant. However, for their second and subsequent interviews, interviewers must attend to information about the applicant they are interviewing and at the same time try to recall information from previous interviews to make comparisons across applicants (Motowidlo, 1986). The impact of trying to maintain this level of cognitive effort (i.e., attending to and processing each piece of applicant information, while also making comparisons across applicants) will be longer decisions.

The cognitive demands on interviewers will continue to increase as they interview more and more applicants. However, based on cognitive load theory, we expect that once the number of interviews becomes too large to be able to use controlled processing, interviewers will resort to schemas or heuristics to reduce cognitive processing demands and facilitate between-applicant comparisons. The proposed impact of this transition from controlled to automatic processing will be shorter decision times as interviewers progress to the later portion of their slate of interviews. The combination of the above two effects leads to the following hypothesis:

Hypothesis 5: There will be a curvilinear relationship between interview order and decision-making time such that the relationship initially will be positive but will become negative as interviewers progress to the latter part of their slate of interviews.

Method

Participants

The data were collected at the career centre of a large public university located in the south-eastern United States. Interviewers (n = 166) were recruited either at a career fair the day before the interviews began, or when they first arrived at the career centre. Interviewers represented organizations from across the country, and all possessed prior interviewing training and experience (e.g., M = 13.18 years of interviewing experience). The interviewer sample was 73.3% male and an average age of 35.59 years (SD = 9.67). The majority of interviewers were Caucasian (90.3%), whereas other interviewers were African American, Hispanic, or Native American.

Applicants were 691 advanced undergraduate and master's students who were interviewing for external positions. Most applicants (85.2%[1]) were interviewing for full-

[1] *Although all applicants were given the opportunity to complete a brief questionnaire following their interviews, some applicants chose not to complete the questionnaire. Thus, the statistics indicated above are based on the following sample sizes: Type of position the applicant was applying for (*N = *203), applicant gender (*N = *624), applicant age (*N = *198), and applicant ethnicity (*N = *200).*

time positions they would assume after graduation. The remaining applicants were applying for full-time internships. The applicant sample was 68.9% male and an average age of 22.87 years (SD = 3.37). In terms of ethnicity, the sample was 85.0% Caucasian, 9.4% Asian, and 5.3% African American. The few remaining applicants were Hispanic or Native American.

Procedure

Before the interviews, interviewers completed a questionnaire that asked them to describe several aspects of the interview(s) they were to conduct. The questionnaire included measures of interview structure and interviewing efficacy. Interviewers also answered several questions about their background, training, and experience. Interviewers then conducted their scheduled interviews. Each interviewer conducted 1–19 interviews (M = 6.21; SD = 2.96). We focused on the first 10 interviews each interviewer conducted. For seven interviewers who conducted more than 10 interviews, we excluded their additional interviews so as not to create large imbalances (i.e., vastly unequal numbers of Level 1 observations) in the data. Each interviewer in the final data set conducted an average of 5.87 (SD = 2.30) interviews. All interviews were conducted in interview rooms in the career centre and were slated for 30 min. Immediately after each interview, interviewers were asked to rate the applicant's interview performance and indicate when they made a decision about the applicant.

Measures

Interview structure

We measured four elements of interview structure using items from Chapman and Zweig (2005). Interviewers rated each item on a Likert-type scale with anchors that ranged from 1 (strongly disagree) to 7 (strongly agree). *Question sophistication* was measured using nine items (e.g., 'I use hypothetical or situational questions'; α = .77). *Question consistency* was measured using five items (e.g., 'I have a list of questions I ask every candidate'; α = .84). *Evaluation standardization* also was measured with five items (e.g., 'I use a formal rating system that I apply to each candidate'; α = .81). *Rapport building* was measured using six items (e.g., 'I ask the candidates personal questions (about hobbies, etc.)'; α = .75).

Interviewing efficacy

Interviewers were asked three questions designed to assess their efficacy for selecting applicants on the basis of the interviews they conduct (Chapman & Zweig, 2005). An example item was 'The interviews I conduct do a good job of identifying the best candidate for the position'. Each question was rated on a Likert-type scale where 1 = strongly disagree and 7 = strongly agree. The alpha for this scale was .73.

Interviewer experience

Interviewing experience was assessed with one item that asked interviewers to indicate the percentage of their time that they spend conducting interviews.

Interviewer training

We asked interviewers whether they had participated in formal interviewer training. For those that received training, we then asked whether the training included each of 13 elements identified as important for effective interviews, such as how to write job-related questions, how to take notes, and how to evaluate applicant answers. This measure was adapted from Chapman and Zweig (2005) and based on the critical elements of interviewer training described by Campion *et al.* (1997). We summed the number of elements on which they had been trained to reflect the comprehensiveness of their training. Scores for this variable ranged from 1 to 13 (α = .75).

Interview order

Interview order was determined from evaluation sheets on which interviewers indicated the date and scheduled time of each interview. Therefore, the interviews were ordered chronologically based on these start times and assigned a number from 0 (indicating their first interview) to 9 (indicating their tenth interview).

Decision-making time

Immediately following each interview, we asked interviewers to indicate when they made a decision about each applicant's suitability. Interviewers made their ratings using a 5-point scale, which included the following response options: 1 = within the first minute, 2 = between the 1st and 5th minute, 3 = between the 5th and 15th minute, 4 = after the 15th minute, and 5 = I still haven't made a decision concerning this applicant. These options correspond to five main decision-making strategies interviewers may use: (1) making an immediate decision about an applicant; (2) making a decision that was not immediate, but that was still fairly quick; (3) making a more delayed decision during the midst of the interview, (4) making a decision near the conclusion of the interview, and (5) not being ready to make a decision about an applicant.

Applicant interview performance

Interviewers rated applicants' performance during the interview using a 4-item scale developed by Stevens and Kristof (1995). An example item was 'How well did this applicant do in the interview?' Each item was rated on a 7-point scale with anchors that ranged from 1 (low) to 7 (high). The alpha for this scale was .93. In addition, as we discuss below, some of the interviews in the data set (k = 76) were panel interviews, which enabled us to assess inter-rater reliability. The correlation between the mean ratings of the two interviewers in these interviews was .73, and the intraclass correlation coefficient for the mean of the two raters was .85.

We controlled for applicants' interview performance in an effort to estimate the unique effects of interview order on decision-making time. Specifically, interviewers may engage in less effortful (and consequently less time intensive) informational processing when applicants perform particularly well or particularly poorly during their interview. In contrast, interviewers may engage in more intensive and deliberate (and consequently more time intensive) informational processing strategies when applicants' performance is not clearly strong or weak. Thus, we expected a curvilinear relationship between how applicants performed during the interview and how quickly interviewers reached their decision about applicant suitability. Specifically, we anticipated that decision-making time

would be shorter for applicants whose performance was low or high and longer for applicants whose performance was moderate.

Data structure and analyses

Structure

The structure of the data was somewhat complex and reflected the reality of an operational interview situation. There were 691 total applicants. For 479 of the applicants, we had ratings from one interviewer, and thus, these applicants were nested uniquely within interviewer. The remaining 212 applicants were not unique in that they either participated in multiple interviews for different companies ($N = 136$) or were rated by multiple interviewers within the same interview (i.e., panel interviews; $N = 76$).

Results of some initial sensitivity analyses suggested that it would be appropriate to use all available data, rather than to split the data into different sets and report separate results for each set.[2] Therefore, all subsequent analyses and results are based on data from 166 different interviewers, 691 different applicants, and 1,042 total interviews. However, some of the interviewers and applicants chose not to complete the questionnaire. As a result, hypotheses examining interview structure and interviewer characteristics were evaluated based on data from between 87 and 114 interviewers. Moreover, hypotheses regarding the order of interviews were evaluated based on 905 of the 1,042 interviews conducted.

Analyses

As noted, most interviewers interviewed multiple applicants, and thus, the data were nested (i.e., applicants within interviewers). Therefore, we used hierarchical linear modelling (via the PROC MIXED function in SAS 9.4, SAS Institute, Cary, NC, USA) to analyse the data and test our hypotheses. In addition to accounting for the dependency in the data, multilevel modelling enabled us to examine how much of the variance in decision-making time ratings is within versus between interviewers. Further, multilevel modelling allowed us to determine (1) whether interview and interviewer factors help account for between-interviewer variance in decision-making time and (2) whether interview order helped account for within-interviewer variance in decision-making time. All analyses were conducted using restricted maximum likelihood (REML) estimation, and all independent variables except interview order variables were standardized prior to their inclusion in the analyses. Finally, for Level 2 (i.e., between groups) analyses, we interpret one-tailed tests corresponding to $p < .10$ as marginally significant in an attempt to balance Type 1 and Type 2 errors (Aguinis *et al.*, 2010). We did so because the accuracy of multilevel parameter estimates and standard errors is affected most strongly by the Level 2 (between groups) sample size (Hox & Maas, 2001; Scherbaum & Ferreter, 2009), which was somewhat modest within our data.

---

[2] *We conducted some initial analyses to determine the most appropriate way to analyze the data for hypothesis testing. First, we examined whether the fact that some applicants were not nested uniquely within interviewers affected the results when we modeled interviewers as a second-level variable. This situation did not appear to affect any of the results. For instance, excluding interviews an applicant participated in beyond their first interview of the day (i.e., in the case of applicants interviewing with multiple companies) so that each applicant was nested uniquely within one interviewer yielded the same pattern of results as did using all available data. Second, we examined whether there were differences between data from panel interviews and individual-interviewer interviews, but found that panel interviewers did not make decisions more or less quickly than individual interviewers.*

Results

Variance in decision-making time across interviewers

Table 1 presents descriptive statistics, correlations, and reliability estimates. In 51 instances (4.9%), interviewers reported making a decision within the first minute of the interview, and in 266 instances (25.5%), interviewers reported making a decision between the first and fifth minutes of the interview. In 307 instances (29.5%), interviewers reported making a decision between 5 and 15 min, whereas 184 interviewers (17.7%) indicated making a decision after the 15th minute of the interview. Finally, in 234 instances (22.5%), interviewers reported making a decision sometime after the interview was completed (i.e., 'I still haven't made a decision concerning this applicant'). Thus, although some interviewers made very quick decisions about some applicants (i.e., within the first 5 min of the interview), the majority of interview decisions (69.6%) occurred sometime after the first 5 min.

To further examine the variance in interviewers' decision-making time, we assessed a null model in hierarchical linear modelling that included only the decision ratings each interviewer provided. The intercept for this model was statistically significant ($\gamma_{00} = 3.265$, $p < .01$), which indicates that there were significant between-interviewer differences in mean decision ratings. The null model also provides variance component estimates. These estimates can be used to compute an intraclass correlation coefficient (ICC) that indicates the proportion of variance in decision-making time that resides between interviewers versus within interviewers. The ICC was .36, which indicates that 36% of the variance in decision-making time resided between interviewers, whereas 64% of the variance resided within interviewers. Thus, although the majority of variance in decision-making time appears to be within interviewers (i.e., between applicants), there also was notable between-interviewer variance in decision-making time. These results provide a basis for treating interviewer as a higher order, Level 2 grouping variable in subsequent analyses.

Effects of between-interviewer factors on decision-making time

We tested the between-interviewer hypotheses in two separate models. The first model included the interview structure variables (i.e., question sophistication, question consistency, evaluation standardization, and rapport building), and the second model included the interviewer variables (i.e., interviewer experience, efficacy, and training). We also explored a combined model that included both sets of variables.

Interview structure

We hypothesized that various elements of interview structure would affect how quickly interviewers make decisions about applicants' suitability. These interview variables are at the interviewer level (i.e., Level 2) and thus are tested as intercepts-as-outcomes models in multilevel modelling (Hofmann, 1997). These models test for mean differences in decision-making time as a function of the four interview structure variables. The results of these analyses are presented in Table 2.

Results indicated that neither question sophistication ($\hat{\gamma} = -0.019$, $p = .40$) nor evaluation standardization ($\hat{\gamma} = -0.015$, $p = .43$) was significantly related to decision-making time; thus, Hypotheses 1a and 1c were not supported. In contrast, in support of H1b, interviews characterized by question consistency ($\hat{\gamma} = 0.179$, $p = .02$) were

Table 1. Descriptive statistics, intercorrelations, and reliability estimates for study variables

Variable	*M*	*SD*	*N*	1	2	3	4	5	6	7
Level 2 variables										
Interview structure										
1. Question sophistication	4.64	1.03	126	.77						
2. Question consistency	4.55	1.50	14	.10	.84					
3. Evaluation standardization	3.72	1.53	124	.20*	.45**	.81				
4. Rapport building	5.37	1.03	124	−.23*	−.04	−.04	.75			
Interviewer variables										
5. Interviewer training	8.84	2.89	98	.13	.12	.05	.30**	.75		
6. Interviewer experience	13.18	19.19	125	.07	.03	−.01	.20*	.34**	–	
7. Interviewing efficacy	5.99	.75	122	.15	.19*	.17	.41**	.34**	.21**	.73
Level 1 variables										
1. Interview performance	5.07	1.30	1,038	.93						
2. Interview performance squared	27.37	12.40	1,038	.99**	–					
3. Order of interview	2.98	2.40	907	.01	.00	–				
4. Order of interview squared	14.66	18.92	907	.02	.01	.94**	–			
5. Decision-making time	3.27	1.21	1,042	−.10**	−.16**	−.02	−.05	–		

Note. Reliability estimates (alpha) are along the diagonal in parentheses.
*$p < .05$; **$p < .01$.

Table 2. Results for within- and between-interviewer variables predicting decision-making time

Variable	Null model	L1 controls and predictor	L2 structure as predictors of intercept	L2 differences as predictors of intercept
Level 1				
Intercept	3.265** (.524**)	3.183** (.487**)	3.104** (.435**)	3.189** (.546**)
Applicant performance		2.638** (.192**)	2.671** (.186**)	2.591** (.152**)
Applicant performance squared ($IntPerf^2$)		−2.840**	−2.871**	−2.797**
Order of Interview		.070*	.085*	.082*
Order of Interview squared		−.009* (.00)	−.011*	−.009*
Level 2: Interview structure				
Question sophistication			−.019	
Question consistency			.179*	
Evaluation standardization			−.015	
Rapport building			−.115†	
Level 2: Interviewer differences				
Interviewer efficacy				−.155†
Interviewer experience				−.118†
Interviewer training				.060
Within-interviewer (L1) residual variance	.918**	.587**	.581**	.543**
Pseudo $R^2_{\text{within interviewer}}$	–	.361	.367	.408
Pseudo $R^2_{\text{between interviewer}}$	–	–	.107	.000
Model deviance	2716.3	2495.5	1874.4	1428.4
Level 1 *N* (applicant and time)	907	905	681	526
Level 2 *N* (interviewer)	156	156	114	87

Note. The interview structure variables and interviewer differences variables were examined in two separate models. Values represent the estimated fixed effects (γ) with robust standard errors. Variance components (τ) are included in parentheses for variables that varied randomly at Level 2. All independent variables were standardized before inclusion in the analyses.
†$p < .10$; **$p < .01$; *$p < .05$.

associated with longer decisions. Further, interviews characterized by rapport building (i.e., less structured interviews) were associated with shorter decisions times ($\hat{\gamma} = -0.115$, $p = .06$), which lends support for H1d.

Interviewer individual differences

The next set of analyses tested hypotheses concerning relations between interviewer individual differences and decision-making time. These variables also are at Level 2 and were tested as an intercepts-as-outcomes model (see Table 2). First, we predicted that interviewers with higher interviewing efficacy would reach decisions more quickly than interviewers with lower interviewing efficacy (H2). In support of this hypothesis, we found a marginally significant, negative relationship between interviewing efficacy and decision-making time ($\hat{\gamma} = -0.155$, $p = .06$). We also predicted a negative relationship between interviewer experience and decision-making time (H3). As hypothesized, interviewers with more experience tended to make quicker decisions than interviewers with less experience ($\hat{\gamma} = -0.118$, $p = .09$). Finally, we predicted a positive relationship between interviewer training and decision-making time, such that interviewers with more training would take longer to make decisions than interviewers with less training (H4). As Table 2 shows, the training–decision-making time relationship was not significant ($\hat{\gamma} = 0.060$, $p = .27$); thus, Hypothesis 4 was not supported.

Combined model

We also explored a model that included all of the between-interviewer variables (i.e., the interview structure and interviewer characteristics) in the same model.[3] The results are shown in Table 3. Although the estimates generally were similar to the estimates from the previous models, interviewer efficacy emerged as the only statistically significant predictor of decision-making time. We note that hierarchical linear modelling requires complete data at Level 2, and when we included all the between-interviewer variables in the same model, the Level 2 sample size was reduced to 87. This is an issue because the Level 2 sample size is the major driver of statistical power in multilevel analyses (Hox & Maas, 2001; Scherbaum & Ferreter, 2009). Thus, the statistical significance of the combined model results should be interpreted cautiously due to low statistical power.

Effects of interview order on decision-making time

Interview order (at Level 1) was used to predict within-interviewer differences in decision-making time. First, controlling for applicant performance, we expected that interviewers would take longer to make decisions about the first few applicants they interviewed and take less time to make decisions as they interviewed additional applicants (H5). To test this hypothesis, we specified a model that included linear and quadratic interview performance terms as controls (i.e., to account for the expected curvilinear relationship between interview performance and decision time). In addition, for the interview order variable, we included a linear term and a quadratic term predicting decision-making time. The quadratic term was included to assess the hypothesized curvilinear relationship

[3] *We thank the action editor for suggesting this analysis.*

Table 3. Results for the combined model of between-interviewer variables predicting decision-making time

Variable	Null model	L2 differences as predictors of intercept
Level 1		
Intercept	3.265** (.524**)	3.181** (.531**)
Applicant performance		2.569** (.152**)
Applicant performance squared		−2.773**
Order of interview		.082*
Order of interview squared		−.009†
Level 2: Interview structure		
Question sophistication		−.095
Question consistency		.146†
Evaluation standardization		.019
Rapport building		−.125
Level 2: Interviewer differences		
Interviewer efficacy		−.151†
Interviewer experience		−.113
Interviewer training		.094
Within-interviewer (L1) residual variance	.918**	.543**
Pseudo $R^2_{\text{within interviewer}}$	–	.691
Pseudo $R^2_{\text{between interviewer}}$	–	.000
Model deviance	2716.3	1433.6
Level 1 *N* (applicant and time)	907	526
Level 2 *N* (interviewer)	156	87

Note. The interview structure variables and interviewer differences variables were examined within the same model. Values represent the estimated fixed effects (ɣ) with robust standard errors. Variance components (τ) are included in parentheses for variables that varied randomly at Level 2. All Level 1 variables were group-mean-centred before inclusion in the analyses.
†$p < .10$; **$p < .01$; *$p < .05$.

between interview order and how quickly interviewers make their decisions. We expected that this relationship initially would be positive (i.e., progressively slower decisions for the first few applicants) but then become negative (i.e., progressively quicker decisions as interviewers meet with more and more applicants).

The results of this analysis are displayed in Table 2. As expected, the linear ($\hat{\gamma} = 2.638$, $p < .01$) and quadratic ($\hat{\gamma} = -2.840$, $p < .01$) interview performance variables were significant predictors of decision-making time. This indicates that interviewers took more time to decide about applicants whose interview performance was moderate and took less time to decide about applicants whose performance was particularly good or poor. Similarly, both the linear ($\hat{\gamma} = 0.070$, $p = .02$) and the quadratic terms ($\hat{\gamma} = -0.009$, $p = .02$) for interview order were significant. To interpret the nature of the quadratic effect, we graphed the values. Figure 2 displays the best-fitting line for the interview order–decision-making time relationship, which clearly shows the form of this curvilinear relationship. Early on, there is a positive relationship between the two variables, such that decision time increased as interviewers progressed through the first few applicants. However, after about four applicants, decision time reached an asymptote and then began to decrease as interviewers evaluated additional applicants. These results provide support

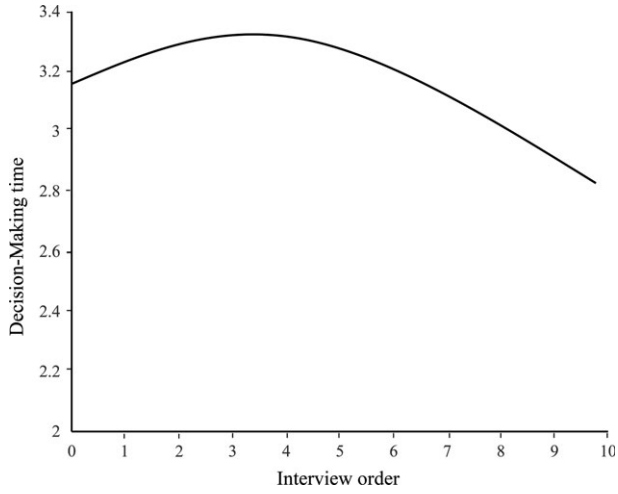

Figure 2. Best-fitting line for the relationship between interview order and decision-making time. The values for interview order reflect the order in which applicants appeared in interviewers' slates. The values for decision-time ratings are based on a scale with the following response options: 1 = within the first minute, 2 = between the 1st and 5th minute, 3 = between the 5th and 15th minute, 4 = after the 15th minute, and 5 = I still haven't made a decision concerning this applicant.

for Hypothesis 5 and suggest that interviewers' decision-making changes as they progress through a slate of applicants.

Discussion

Key findings and implications

There exists a belief among practitioners and researchers that interviewers tend to make very quick decisions about applicants (e.g., Buckley & Eder, 1988; Heathfield, 2012; Judge *et al.*, 2000). However, a careful look at the interview literature suggests a lack of strong empirical data to support this belief. Our findings suggest that although some interviewer decisions occur within the first few minutes of an interview, most interviews do not result in 'snap decisions' (i.e., decisions within 1–5 min). In fact, nearly 25% of interviews concluded with the interviewer still undecided about the applicant. These results appear to challenge the idea that most interview decisions occur at the very beginning of the interview.

Moreover, interview decision-making time appears to vary both between and within interviewers. First, the nature of the interview can affect how quickly interviewers reach decisions, such that interviewers who engage in rapport building tend to make quicker decisions. Nonetheless, two elements of interview structure (i.e., question sophistication and evaluation standardization) do not appear to strongly affect interviewers' decision-making time. One possibility is that the effects of rapport building counteracted the effects of interview structure. For example, Chapman and Zweig (2005) found that trained interviewers often ignore suggestions to avoid rapport building. Additionally, question consistency is the one characteristic that concerns how the entire interview is structured from beginning to end. The other two elements of interview structure focus on the content of the questions and rating scales and may do less to encourage interviewers to

gather more information about each applicant. This could account for the lack of support for evaluation standardization and question sophistication as predictors of decision time.

Our findings also suggest that certain interviewers are more likely to make quicker decisions about applicants. Specifically, interviewers with more experience and higher interviewing efficacy make quicker decisions than interviewers with less experience and lower efficacy. Interviewer training, however, does not seem to affect decision-making. This lack of support could be due to three reasons. First, interviewers were asked to indicate whether the training they received incorporated a number of items commonly covered in interviewer trainings. Nonetheless, we have no indication how long ago interviewers received this training or the quality of such training. Another possibility is that the effects of interviewers' efficacy perceptions and interviewing experience may be more proximal to their decision-making and 'trump' the effects of interviewer training. For example, research has found that training leads to heightened self-efficacy perceptions (e.g., Heggestad & Kanfer, 2005; Saks, 1995).

Alternatively, as a reviewer pointed out, although interviewer training does not appear to have a main effect on interviewer decision-making time, it may moderate the effects of some of the other variables in our model. For instance, training may affect the extent to which elements of structured interviews can combat the use of more automatic information processing strategies. To explore this possibility, we conducted some *post-hoc* analyses that examined the interactive effects of training and interview structure on decision-making time. Results revealed two significant interaction effects. First, there was an interaction between training and rapport building ($\hat{\gamma} = 0.256, p = .02$, see Figure 3). Specifically, among interviewers who possessed a low level of training, there was a significant, negative relationship ($b = -0.440, p < .01$) between rapport building and decision-making time such that rapport building was associated with quicker decisions. In contrast, interviewers who possessed a high level of training did not make quicker decisions regardless of whether their interviews were characterized by high or low levels of rapport building ($b = 0.063, p = .35$). These results may suggest that interviewers who

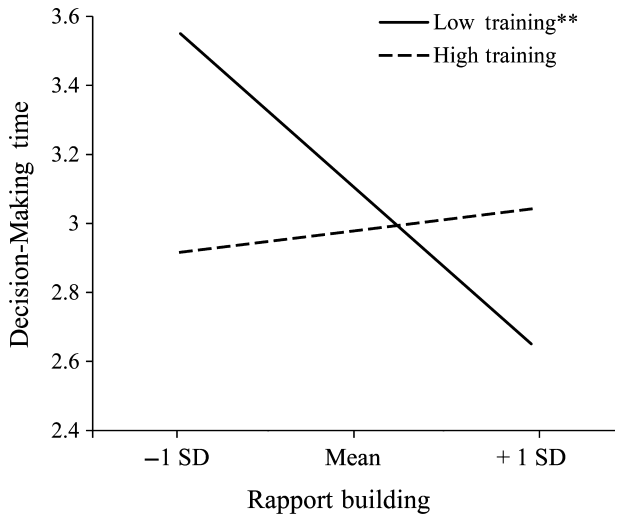

Figure 3. Interaction between rapport building and interviewer training on decision-making time. $^{**}p < .01$ (slope).

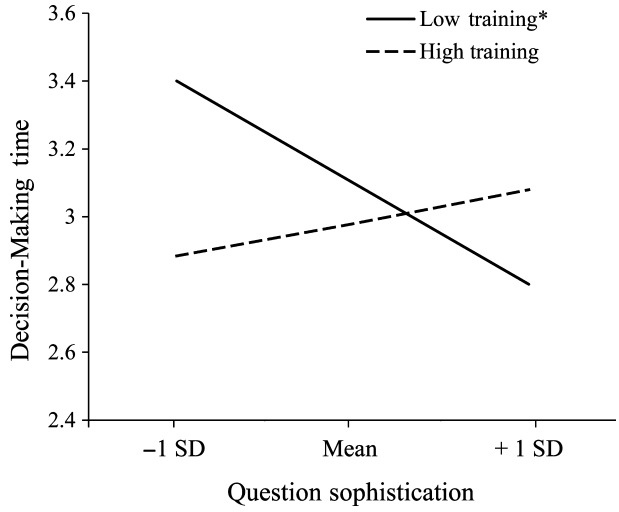

Figure 4. Interaction between question sophistication and interviewer training on decision-making time. *$p < .05$ (slope).

have little to no training may be more susceptible to making more automatic decisions based on affective judgments that arise from rapport building. Alternatively, training may be able to counteract the quicker decisions that rapport building appears to evoke.

Second, there was an interaction between interviewer training and question sophistication ($\hat{\gamma} = 0.197$, $p = .02$, see Figure 4). Similar to the preceding results for rapport building, among interviewers who possessed limited training, use of sophisticated questions was related to quicker decision-making times ($b = -0.299$, $p = .02$). In contrast, highly trained interviewers did not make significantly faster decisions regardless of whether or not they employed sophisticated questions ($b = 0.095$, $p = .21$). This suggests that interviewers who lack adequate training on how to conduct and process information gathered from sophisticated questions make significantly quicker decisions. This lends support for the notion that interviewers who lack training may rely on more automatic processing strategies to deal with the complex cognitive information processing requirements of more sophisticated questions. Nonetheless, these interactions should be considered speculative until replicated in future research.

Finally, our results suggest that interviewers' decision-making changes as they interview multiple applicants. Specifically, interviewers take progressively longer to make decisions about the first few applicants they interview, and take progressively less time to make decisions about applicants who appear later in the interview schedule. These findings are consistent with cognitive load theory and suggest that interviewers manage cognitively intensive information processing demands by employing cognitive schema that render decision-making more automatic. This is the only study we know of that has attempted to model changes in interviewers' decision-making time across applicants. The present results suggest that failing to do so may conceal intra-interviewer variance that may have substantive meaning. We encourage researchers to consider this issue in how they design interview studies.

Implications for practice

The present findings also have implications for interviewing in organizations. One key insight is that interviewers' approach to decision-making may change across applicants. Specifically, some interviewers take longer to evaluate applicants at the beginning of their interview schedule and take less time to evaluate applicants near the end of their schedule. One implication is that interview order may place some applicants at a disadvantage. For example, applicants interviewing later in the schedule might not get as much opportunity to perform as those earlier in the schedule. Thus, organizations may benefit from limiting the number of interviews an interviewer conducts in immediate succession. Our data suggest that interviewers' transition from effortful to automatic information processing strategies may occur around the fourth interview they conduct. Scheduling breaks between interviews may reduce the extent to which interviewers rely on cognitive schema for reducing the demands of applicant evaluation.

Additionally, applicants should be aware that the rapport building stage of the interview, although often less formal, can influence interviewers' decision-making time. For instance, Chapman and Zweig (2005) noted that rapport building might 'encourage them [applicants] to be more open in providing information that is more predictive of future performance' (p. 697). Thus, when preparing for interviews, applicants should practice responses to common 'conversation starters' that often emerge during rapport building.

Although our results suggest that quick decision-making times may be the exception rather than the norm, some interviewers did report making fairly quick decisions about certain applicants. This is concerning because judgments based on only minimal information could lead interviewers to make unreliable and inaccurate selection decisions. The fact that interviewers with more experience and higher interviewing efficacy tend to make quicker decisions is particularly troubling, as such individuals may have a large impact on which applicants are brought into the organization. Thus, organizations should cover potential pitfalls of quick decision-making during interview training and discuss strategies to minimize such decisions. For example, training might frame the interview as a 'data collection' technique and that decisions should be made only after a careful analysis of the information collected during the entire interview. In addition, 'refresher training' might be appropriate for experienced interviewers, so they can guard against some of the tendencies suggested in our data.

Last, the fact that rapport building (an aspect of unstructured interviews) was associated with quicker decisions is another reason to train interviewers to use structured procedures that focus on job-relevant questions and information. Nonetheless, similar to Chapman and Zweig (2005) findings, interviewers may still engage in rapport building despite having been trained not to do so. Thus, emphasizing deliberate information processing strategies may help reduce interviewers' tendencies to make quick decisions.

Strengths and limitations

One strength of our study was that we studied interviews conducted by experienced interviewers and applicants who were applying for real jobs. However, all participants were undergraduate or graduate students. Thus, some of our findings might not generalize to interviews with other types of applicants or interviews, such as applicants with more job experience, or to interviewers who conduct interviews for higher level positions.

Another strength was that we were able to sample a relatively large number of interviewers and applicants representing a variety of jobs and organizations. This design, for example, allowed us to examine whether variance in interview structure and interviewer individual differences (e.g., in training) influenced decision-making time. At the same time, this design limited our control over each of the interviews conducted. In the future, it might be useful to examine decision-making time in a more standardized way, such as using the same interviews or using applicants for the same job.

Additionally, decision-making is a cognitive phenomenon, and thus, some type of self-report method is needed to measure how long interviewers take to make a decision. In contrast to earlier (laboratory) studies that required interviewers to stop and record their decision during the interview (e.g., Springbett, 1954; Tucker & Rowe, 1977), we asked interviewers to make this judgment after the interview to balance methodological rigour within the constraints of an operational selection setting. In addition, we chose not to ask interviewers to indicate the exact time they made their decisions because we felt it was unlikely that interviewers would be able to accurately recall the exact time. We also were concerned that doing so might prime interviewers to pay attention to the time. Nonetheless, our approach may possess certain drawbacks. For example, although interviewers rated decision-making time immediately after the interview, time perceptions are subjective, and some interviewers might perceive interviews to drag on if applicants are dull or unprepared for the interview.

Additionally, although all interviews were slated for 30 min, we were unable to determine the exact length of each interview. For example, some interviews may have concluded a few minutes before the scheduled 30 min (although an author involved in data collection did not notice any applicants exiting the interview rooms early into their slated time). If so, the meaning of some of the points on the decision-making time scale may change slightly compared to interviews that lasted the full 30 min. Taken together, we encourage future research to further consider ways to capture interviewers' decision strategies in operational settings.

Moreover, we noted reasons why quick interview decisions may be detrimental, such as biasing interviewers' informational search (and consequently the accuracy of resulting judgments; Motowidlo, 1986) and failing to provide applicants an opportunity to perform (Gilliland, 1993). However, we did not examine relations between decision-making time and such factors. Further, we were unable to examine the validity of inferences based on shorter versus longer decision times. For example, we could not determine whether the ratings of interviewers who took longer to make decisions were better predictors of future performance than ratings of interviewers who made quicker decisions.

Future research

The present findings point to a number of interesting avenues for future research. For example, although interviewers often interview multiple applicants for the same position, studies typically ignore this fact and instead focus on individual interviews conducted by many different interviewers. In contrast, the present study examined interviewers' decisions across slates of applicants, and the results suggested that interviewer decision-making strategies change over time. More research is needed to further understand how interviewers' decisions may change across applicants. For example, it would be interesting to examine whether the reliability and validity of interviewer ratings change over a slate of interviews. Future research also could explore other interviewer-level factors that may be related to decision-making time. For instance, perhaps interviewers

who are humble or conscientiousness tend to delay their decisions more than interviewers lower on these traits. In addition, it would be interesting to know whether other situational factors affect how quickly interviewers make decisions, such as the size of the applicant pool or the stage of the selection process (e.g., quicker decisions in larger pools, earlier in the selection process).

Previous research has shown that perceived or actual similarity between applicants and interviewers can affect interview outcomes (for a review, see McCarthy, Van Iddekinge, & Campion, 2010). Future research might explore whether applicant–interviewer (dis)similarity also affects how quickly interviewers make decisions. For example, interviewers may make quicker decisions about applicants they perceive as very similar or very dissimilar to themselves. Relatedly, if an interviewer is biased against members of a particular demographic group, might this bias be reflected in quicker interview decisions? Furthermore, could this bias be minimized by doing things that encourage interviewers to delay their decisions and gather more information?

Additionally, we are not aware of any research on the relationship between the time interviewers take to make decisions and the overall quality of their decisions. As we noted, delaying decisions about applicants would seem beneficial because it encourages interviewers to collect more information on which to base their judgments. We also proposed that decision-making time may be influenced by the high cognitive load resulting from a variety of interview and interviewer factors. Nonetheless, we were unable to test this mechanism directly, or its relationship to the effectiveness of interview decisions. Future research should examine the impact of cognitive load on decision-making time and decision quality in a controlled laboratory setting.

Conclusion

This study examined how quickly interviewers in an operational selection context make decisions about applicants, as well as identified factors that may influence these decisions. The data suggest that most interview decisions are not made quickly, but often occur later in the interview or after the interview has ended. Further, there is notable variance between interviewers in terms of how long they take to decide. In addition, interviewers appear to take longer to make decisions about the first few applicants they interview than they do about subsequent applicants. Finally, characteristics of the interview (i.e., rapport building and question consistency) and the interviewer (i.e., interviewer experience, efficacy) explain some of the between-interviewer variance in decision-making time. Moving forward, we encourage researchers to replicate and extend our findings to better understand interviewers' decision-making time and its effects on organizations and applicants.

Acknowledgements

An earlier version of this article was presented at the 72nd Annual Meeting of the Academy of Management, Boston, Massachusetts, August 2012. We thank Heather Odle-Dusseau, Melinda Seibert, and Kate Williams for their assistance with study design and data collection efforts as well as for their contributions on earlier versions of this manuscript. Finally, we are grateful to the Clemson University Career and Professional Development Center for providing us with a professional setting in which to conduct this research as well as for their assistance recruiting study participants.

References

Aguinis, H., Werner, S., Abbott, J. L., Angert, C., Park, J. H., & Kohlhausen, D. (2010). Customer-centric science: Reporting research results with rigor, relevance, and practical impact in mind. *Organizational Research Methods*, *13*, 515–539. doi:10.1177/1094428109333339

Ambady, N., & Rosenthal, R. (1993). Half a minute: Predicting teacher evaluations from thin slices of behavior and physical attractiveness. *Journal of Personality and Social Psychology*, *64*, 431–441. doi:10.1037/0022-3514.64.3.431

Arvey, R. D., & Campion, J. E. (1982). The employment interview: A summary review of recent research. *Personnel Psychology*, *35*, 281–322. doi:10.1111/j.1744-6570.1982.tb02197.x

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

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*, 191–215. doi:10.1037/0033-295X.84.2.191

Bargh, J. A. (1984). Automatic and conscious processing of social information. In R. Wyer & T. Srull (Eds.), *Handbook of social cognition* (Vol. 3, pp. 1–43). Mahwah, NJ: Erlbaum.

Barrick, M. R., Swider, B. W., & Stewart, G. L. (2010). Initial evaluations in the interview: Relationships with subsequent interviewer evaluations and employment offers. *Journal of Applied Psychology*, *95*, 1163–1172. doi:10.1037/a0019918

Borman, W. C., Hanson, M. A., Oppler, S. H., Pulakos, E. D., & White, L. A. (1993). Role of early supervisory experience in supervisor performance. *Journal of Applied Psychology*, *78*, 443–449. doi:10.1037/0021-9010.78.3.443

Brafman, O., & Brafman, R. (2008). *Sway: The irresistible pull or irrational behavior*. New York, NY: Doubleday.

Buckley, M. R., & Eder, R. W. (1988). B. M. Springbett and the notion of the 'snap decision' in the interview. *Journal of Management*, *14*, 59–68. doi:10.1177/014920638801400106

Campion, M. A., Palmer, D. K., & Campion, J. E. (1997). A review of structure in the selection interview. *Personnel Psychology*, *50*, 655–702. doi:10.1111/j.1744-6570.1997.tb00709.x

Chapman, D. S., & Zweig, D. I. (2005). Developing a nomological network for interview structure: Antecedents and consequences of the structured selection interview. *Personnel Psychology*, *58*, 673–702. doi:10.1111/j.1744-6570.2005.00516.x

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

Dipboye, R. L., & de Pontbriand, P. (1981). Correlates of employee reactions to performance appraisals and appraisal systems. *Journal of Applied Psychology*, *66*, 248–251. doi:10.1037/0021-9010.66.2.248

Gatewood, J. L., Lahiff, J., Deter, R., & Hargrove, L. (1989). Effects of training on behaviors of the selection interview. *Journal of Business Communication*, *26*, 17–31. doi:10.1177/002194368902600103

Gilliland, S. W. (1993). The perceived fairness of selection systems: An organizational justice perspective. *Academy of Management Review*, *18*, 694–734. doi:10.5465/AMR.1993.9402210155

Gladwell, M. (2005). *Blink: The power of thinking without really thinking*. New York, NY: Little, Brown, and Company.

Haden, J. (2011). *Nine snap judgments managers make in job interviews*. CBS Money Watch. Retrieved from http://www.cbsnews.com/8301-505143_162-47743960/9-snap-judgments-managers-make-in-job-interviews/

Hausknecht, J. P., Day, D. V., & Thomas, S. C. (2004). Applicant reactions to selection procedures: An updated model and meta-analysis. *Personnel Psychology*, *57*, 639–683. doi:10.1111/j.1744-6570.2004.00003.x

Heathfield, S. M. (2012). *Why "blink" matters: The power of first impressions*. About.com. Retrieved from http://humanresources.about.com/od/workrelationships/a/blink_effect.ht m

Heggestad, E. D., & Kanfer, R. (2005). The predictive validity of self-efficacy in training performance: Little more than past performance. *Journal of Experimental Psychology: Applied*, *11*, 84–97. doi:10.1037/1076-898X.11.2.84

Highhouse, S. (2008). Stubborn reliance on intuition and subjectivity in employee selection. *Industrial and Organizational Psychology*, *1*, 333–342. doi:10.1111/j.1754-9434.2008.00058.x

Hofmann, D. A. (1997). An overview of the logic and rationale of hierarchical linear models. *Journal of Management*, *23*, 723–744. doi:10.1177/014920639702300602

Hox, J. J., & Maas, C. J. (2001). The accuracy of multilevel structural equation modeling with pseudobalanced groups and small samples. *Structural Equation Modeling*, *8*, 157–174. doi:10.1207/S15328007SEM0802_1

Huffcutt, A. I. (2010). From science to practice: Seven principles for conducting employment interviews. *Applied H.R.M. Research*, *12*, 121–136.

Huffcutt, A. I., & Arthur, Jr, W. (1994). Hunter and Hunter (1984) revisited: Interview validity for entry-level jobs. *Journal of Applied Psychology*, *79*, 184–190. doi:10.1037/0021-9010.79.2.184

Huffcutt, A. I., & Roth, P. L. (1998). Racial group differences in employment interview evaluations. *Journal of Applied Psychology*, *83*, 179–189. doi:10.1037/0021-9010.83.2.179

Judge, T. A., Higgins, C. A., & Cable, D. M. (2000). The employment interview: A review of recent research and recommendations for future research. *Human Resource Management Review*, *10*, 383–406. doi:10.1016/S1053-4822(00)00033-4

Kane, J. S., Bernardin, H. J., Villanova, P., & Peyrefitte, J. (1995). Stability of rater leniency: Three studies. *Academy of Management Journal*, *38*, 1036–1051. doi:10.2307/256619

König, C. J., Klehe, U.-C., Berchtold, M., & Kleinmann, M. (2010). Reasons for being selective when choosing personnel selection procedures. *International Journal of Selection and Assessment*, *18*, 17–27. doi:10.1111/j.1468-2389.2010.00485.x

Lance, C. E., LaPointe, J. A., & Fisicaro, S. A. (1994). Tests of three causal models of halo rater error. *Organizational Behavior and Human Decision Processes*, *57*, 83–96. doi:10.1006/obhd.1994.1005

McCarthy, J. M., Van Iddekinge, C. H., & Campion, M. A. (2010). Are highly structured job interviews resistant to demographic similarity effects? *Personnel Psychology*, *63*, 325–359. doi:10.1111/j.1744-6570.2010.01172.x

McDaniel, M. A., Whetzel, D. L., Schmidt, F. L., & Maurer, S. D. (1994). The validity of employment interviews: A comprehensive review and meta-analysis. *Journal of Applied Psychology*, *79*, 599–616. doi:10.1037/0021-9010.79.4.599

Miller, G. A. (1956). The magical number seven, plus or minus two: Some limits on our capacity for processing information. *Psychological Review*, *63*, 81–97. doi:10.1037/h0043158

Motowidlo, S. J. (1986). Information processing in personnel decisions. In K. M. Rowland & G. R. Ferris (Eds.), *Research in personnel and human resources management* (Vol. 4, pp. 1–44). Greenwich, CT: JAI Press.

O'Brien, J., & Rothstein, M. G. (2011). Leniency: Hidden threat to large-scale, interview-based selection systems. *Military Psychology*, *23*, 601–615. doi:10.1080/08995605.2011.616791

Paas, F., & Ayres, P. (2014). Cognitive load theory: A broader view on the role of memory in learning and education. *Educational Psychology Review*, *26*, 191–195. doi:10.1007/s10648-014-9263-5

Raymark, P. H., & Van Iddekinge, C. H. (2013). Assessing personality in selection interviews. In N. Christiansen & R. Tett (Eds.), *Handbook of personality at work* (pp. 419–438). New York, NY: Routledge.

Sackett, P. R., & Lievens, F. (2008). Personnel selection. *Annual Review of Psychology*, *59*, 419–450. doi:10.1146/annurev.psych.59.103006.093716

Saks, A. M. (1995). Longitudinal field investigation of the moderating and mediating effects of self-efficacy on the relationship between training and newcomer adjustment. *Journal of Applied Psychology*, *80*, 211–225. doi:10.1037/0021-9010.80.2.211

Scherbaum, C. A., & Ferreter, J. M. (2009). Estimating statistical power and required sample sizes for organizational research using multilevel modeling. *Organizational Research Methods*, *12*, 347–367. doi:10.1177/1094428107308906

Schmidt, F. L., Hunter, J. E., & Outerbridge, A. N. (1986). The impact of job experience and ability on job knowledge, work sample performance, and supervisory ratings of job performance. *Journal of Applied Psychology*, *71*, 432–439. doi:10.1037/0021-9010.71.3.432

Schneider, W., & Shiffrin, R. M. (1977). Controlled and automatic human information processing: I. Detection, search, and attention. *Psychological Review*, *84*, 1–66. doi:10.1037/0033-295X.84.1.1

Shiffrin, R. M., & Schneider, W. (1977). Controlled and automatic human information processing: II. Perceptual learning, automatic attending and a general theory. *Psychological Review*, *84*, 127–190. doi:10.1037/0033-295X.84.2.127

Simon, H. A., & Gilmartin, K. (1973). A simulation of memory for chess positions. *Cognitive Psychology*, *5*, 29–46. doi:10.1016/0010-0285(73)90024-8

Sonnentag, S., & Volmer, J. (2009). Individual-level predictors of task-related teamwork processes: The role of expertise and self-efficacy in team meetings. *Group & Organization Management*, *34*, 37–66. doi:10.1177/1059601108329377

Springbett, B. M. (1954). *Series effects in the employment interview* (Unpublished doctoral dissertation). McGill University, Montreal, QC, CA.

Springbett, B. M. (1958). Factors affecting the final decision in the employment interview. *Canadian Journal of Psychology*, *12*, 13–22. doi:10.1037/h0083726

Stevens, C. K. (1998). Antecedents of interview interactions, interviewers' ratings, and applicants' reactions. *Personnel Psychology*, *51*, 55–85. doi:10.1111/j.1744-6570.1998.tb00716.x

Stevens, C. K., & Kristof, A. L. (1995). Making the right impression: A field study of applicant impression management during job interviews. *Journal of Applied Psychology*, *80*, 587–606. doi:10.1037/0021-9010.80.5.587

Stone, D. N. (1994). Overconfidence in initial self-efficacy judgments: Effects on decision processes and performance. *Organizational Behavior and Human Decision Processes*, *59*, 452–474. doi:10.1006/obhd.1994.1069

Sweller, J. (2003). Evolution of human cognitive architecture. In B. Ross (Ed.), *The psychology of learning and motivation* (Vol. 43, pp. 215–266). San Diego, CA: Academic Press.

Sweller, J. (2004). Instructional design consequences of an analogy between evolution by natural selection and human cognitive architecture. *Instructional Science*, *32*, 9–31. doi:10.1023/B:TRUC.0000021808.72598.4d

Sweller, J., van Merriënboer, J. J. G., & Paas, F. (1998). Cognitive architecture and instructional design. *Educational Psychology Review*, *10*, 251–296. doi:10.1023/A:1022193728205

Tesluk, P. E., & Jacobs, R. R. (1998). Toward an integrated model of work experience. *Personnel Psychology*, *51*, 321–355. doi:10.1111/j.1744-6570.1998.tb00728.x

Tucker, D. H., & Rowe, P. M. (1977). Consulting the application form prior to the interview, and essential step in the selection process. *Journal of Applied Psychology*, *62*, 283–287. doi:10.1037/0021-9010.62.3.283

Tullar, W. L., Mullins, T. W., & Caldwell, S. A. (1979). Effects of interview length and applicant quality on interview decision time. *Journal of Applied Psychology*, *64*, 669–674. doi:10.1037/0021-9010.64.6.669

Tuovinen, J. E., & Sweller, J. (1999). A comparison of cognitive load associated with discovery learning and worked examples. *Journal of Educational Psychology*, *91*, 334–341. doi:10.1037/0022-0663.91.2.334

Van Iddekinge, C. H., Raymark, P. H., & Roth, P. L. (2005). Assessing personality with a structured employment interview: Construct-related validity and susceptibility to response inflation. *Journal of Applied Psychology*, *90*, 536–552. doi:10.1037/0021-9010.90.3.536

van Merriënboer, J. J. G., Kirschner, P. A., & Kester, L. (2003). Taking the load off a learner's mind: Instructional design for complex learning. *Educational Psychology*, *38*, 5–13. doi:10.1207/S15326985EP3801_2

van Merriënboer, J. J. G., & Sweller, J. (2005). Cognitive load theory and complex learning: Recent developments and future directions. *Educational Psychology Review*, *17*, 147–177. doi:10.1007/s10648-005-3951-0

Wexley, K. N., Yukl, G. A., Kovacs, S. Z., & Sanders, R. E. (1972). Importance of contrast effects in employment interviews. *Journal of Applied Psychology*, *56*, 45–48. doi:10.1037/h0032132

Wiesner, W. H., & Cronshaw, S. F. (1988). A meta-analytic investigation of the impact of interview format and degree of structure on the validity of the employment interview. *Journal of Occupational Psychology*, *61*, 275–290. doi:10.1111/j.2044-8325.1988.tb00467.x

Wilk, S. L., & Cappelli, P. (2003). Understanding the determinants of employer use of selection methods. *Personnel Psychology*, *56*, 103–124. doi:10.1111/j.1744-6570.2003.tb00145.x

Woehr, D. J., & Roch, S. G. (1996). Context effects in performance evaluation: The impact of ratee sex and performance level on performance ratings and behavioral recall. *Organizational Behavior and Human Decision Processes*, *66*, 31–41. doi:10.1006/obhd.1996.0036

Wong, K. F. E., & Kwong, J. Y. (2005). Between-individual comparisons in performance evaluation: A perspective from prospect theory. *Journal of Applied Psychology*, *90*, 284–294. doi:10.1037/0021-9010.90.2.284

Zajonc, R. B. (1980). Feeling and thinking: Preferences need no inferences. *American Psychologist*, *35*, 151–175. doi:10.1037/0003-066X.35.2.151

Received 9 April 2013; revised version received 11 March 2015