

Personality, Biographical Characteristics, and Job Interview Success: A Longitudinal Study of the Mediating Effects of Interviewing Self-Efficacy and the Moderating Effects of Internal Locus of Causality

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In this study, the authors developed and tested a model of performance in job interviews that examines the mediating role of *interviewing self-efficacy* (I-SE; job applicants' beliefs about their interviewing capabilities) in linking personality and biographical background with interview success and the moderating role of locus of causality attributions in influencing the relationship between interview success and subsequent I-SE. The authors tested their model (over 5 months' duration) with matched data from 229 graduating seniors, firms, and university records. Hierarchical regression analyses demonstrated I-SE mediated the effects of *Extraversion*, *Conscientiousness*, and *leadership experience* on interview success. *Locus of causality* attributions for interview outcomes moderated the relationship between interview success and subsequent I-SE. Theoretical and practical implications are discussed.

Keywords: interviewing self-efficacy, personality, job interview success, internal locus of causality

To date, a sizable body of research has demonstrated that personality and biographical characteristics predict job search success (Hough & Oswald, 2000; Kanfer, Wanberg, & Kantrowitz, 2001; Landy & Shankster, 1994). More specifically, research demonstrates that *Conscientiousness* and *Extraversion* predict performance in job interviews (Boudreau, Boswell, Judge, & Bretz, 2001; Caldwell & Burger, 1998; De Fruyt & Mervielde, 1999), and biographical characteristics of academic achievement and extracurricular activities (typically reported in employment applications) predict successful job search (Campion, 1978).

Although these findings show the utility of personality and biographical characteristics for predicting job search performance, little is known of the psychological mechanisms that underlie these relationships (Huffcutt, Roth, & McDaniel, 1996; Kanfer et al., 2001). The primary purpose of the present study is to increase our understanding of the processes that link individual characteristics (e.g., personality and biographical background) to job search success. Specifically drawing on Bandura's (1986, 1997) social-cognitive theory, we introduce the concept of *interviewing self-efficacy* (I-SE; defined as personal judgments of interviewing capabilities) as a key underlying mechanism that links applicant characteristics with job interview success.

Our primary thesis is that personality and biographical characteristics influence initial I-SE, which, in turn, influences interview success. Thus, we position I-SE as a mediating mechanism. Further, given that self-efficacy beliefs are not immutable over time

and that task performance can influence perceptions of future efficacy (Bandura, 1997), the second purpose of the present study was to examine the effects of interview outcomes on subsequent I-SE. Finally, drawing on attribution theory (Weiner, 1986), we propose that internal locus of causality influences the relationship between interview success and subsequent I-SE. We tested our hypotheses with field data (i.e., college seniors seeking full-time employment) from multiple sources. We conclude by discussing theoretical and practical implications of our findings and the importance of I-SE over time.

I-SE and Interview Success

I-SE refers to job-seekers' beliefs about their job-interviewing capabilities. Research on social-cognitive theory (Bandura, 1997) has demonstrated that self-efficacy is a widely accepted and empirically validated predictor of individual behavior. Self-efficacy beliefs trigger effort and persistence. According to Bandura (1997), and consistent with a large amount of empirical work, efficacy beliefs specific to a particular task domain are most relevant for predicting and understanding performance in a given situation (see Bandura, 1989; Gist, Schwoerer, & Rosen, 1989; Stajkovic & Luthans, 1998).

I-SE reflects cognitions about task-specific self-competence in job interviewing (e.g., confidence in enacting appropriate behaviors during job interviews). We expect that high I-SE should allow job seekers to enhance their effort and persistence in mastering challenges in the employment interview domain, leading to appropriate and effective verbal, nonverbal, and image-management behaviors during interviews (see Bandura & Schunk, 1981; Phillips & Gully, 1997). Thus, those with high I-SE should receive more job offers.

Hypothesis 1: Initial I-SE is positively related to interview success.

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Turning to the mediating role of self-efficacy, the focus of our article, we aim to understand how individual characteristics (such as personality and biographical background) influence interview success. Although meta-analyses of personality (particularly the Five-Factor Model [FFM]) reveal that traits such as Conscientiousness predict job performance across nearly all jobs (Barrick, Mount, & Judge, 2001) and influence job search (Kanfer et al., 2001), current trends in personality research view distal personality traits as predictors of more proximal processes that, in turn, influence performance (Chen, Gully, Whiteman, & Kilcullen, 2000).

For example, research shows that self-regulatory, social-cognitive processes (such as goal setting, expectancy, and efficacy beliefs) mediate effects of personality on performance (Barrick, Mount, & Strauss, 1993; Barrick, Stewart, & Piotrowski, 2002; Judge & Ilies, 2002). Chen, Casper, and Cortina's (2001) meta-analysis demonstrated that task-specific self-efficacy mediated effects of cognitive ability and Conscientiousness on performance. Martocchio and Judge (1997) showed that task-specific self-efficacy mediated the Conscientiousness-learning performance link. Other research demonstrates that biographical characteristics such as academic achievement (e.g., Dipboye, Fontenelle, & Garner, 1984) and extracurricular activities (Brown & Campion, 1994; Campion, 1978) predict interviewer evaluations. Little research, however, examines the process that links personality and biographical characteristics with interview performance. This is an important gap, because knowledge of the process can provide insights into how to enhance interview performance.

Combining these theoretical arguments and past research results, we focus on I-SE as a key process through which individual characteristics (e.g., personality and biographical background) influence interview outcomes. We propose that I-SE is a cognition that is influenced by personality and prior experiences and that I-SE influences interview success. We build on this general logic and apply it more specifically below to predict that personality characteristics (e.g., Extraversion, Conscientiousness, and Emotional Stability) and biographical background (e.g., prior leadership experience) influence performance in job interviews because of their effect on I-SE (i.e., I-SE mediates the relationships of personality and biographical background with interview success).

Personality, I-SE, and Interview Success

First, we expected extraverted individuals to have higher interviewing self-efficacy (i.e., cognitive evaluation of capabilities in interview situations). We expected this because the job interview context is fundamentally a social interaction between interviewer and applicant, and Costa and McCrae (1992) demonstrated that extraverted individuals are especially confident and adept in tasks with social interactions. The social skills of Extraversion should give applicants interpersonal confidence in interviewing. Consistent with this, Judge and Ilies's (2002) meta-analysis on the relationship between personality and performance motivation demonstrated that Extraversion is related to the cognitive-motivational process of self-efficacy ($\rho = .33$).

Second, we expected conscientious applicants to have higher interviewing self-efficacy. Those who are highly conscientious are achievement-oriented, responsible, organized, and willing to work hard to attain goals (Barrick & Mount, 1991). On the basis of these

traits, highly conscientious individuals prepare carefully for interviews (e.g., research firms, participate in mock interviews) to attain desired performance outcomes. Because they are better prepared, they perceive themselves as capable of performing well during interviews. For example, Judge and Ilies's (2002) meta-analysis demonstrated that Conscientiousness is related to the cognitive-motivational process of self-efficacy ($\rho = .22$).

Third, we expected that those with high *Emotional Stability* would have higher interviewing self-efficacy than those with low *Emotional Stability*. The job search process is fundamentally evaluative. According to Bandura (1997), individuals judge their performance capabilities on the basis of how positively or negatively aroused they feel when confronted with a particular task. When faced with an evaluative employment interview, applicants who are low in *Emotional Stability* experience discomforting physiological and psychological reactions that will detract from their judgments of interviewing self-efficacy. Supporting this relationship, Judge and Ilies's (2002) meta-analysis demonstrated that *Emotional Stability* is related to self-efficacy ($\rho = .35$).

Hypothesis 2: Extraversion, Conscientiousness, and Emotional Stability are positively related to initial I-SE.

Existing research demonstrates that college graduates who are more extraverted and conscientious are more successful in job interviews (Caldwell & Burger, 1998; De Fruyt & Mervielde, 1999; Dunn, Mount, Barrick & Ones, 1995; Posthuma, Morgeson, & Campion, 2002). Research also suggests a relationship between *Emotional Stability* and interview outcomes (Caldwell & Burger, 1998; Kanfer et al., 2001). Combining these arguments, we propose that I-SE mediates effects of distal personality characteristics (e.g., Extraversion, Conscientiousness, and Emotional Stability) on interview success. This is consistent with current views of efficacy as a proximal mediator that links more distal personality characteristics with performance (Barrick et al., 1993, 2002; Locke & Latham, 2004). For example, Taylor, Locke, Lee, and Gist's (1984) study of achievement-oriented personality (a dimension of Conscientiousness) and self-efficacy provides evidence that self-efficacy is an intervening mechanism through which personality influences performance (researcher productivity). In sum, we propose that I-SE is a causal process linking Extraversion, Conscientiousness, and Emotional Stability with interview success.

Hypothesis 3: Initial I-SE mediates the relationships between Extraversion, Conscientiousness, and Emotional Stability and interview success.

Openness to Experience (i.e., the tendency to be imaginative, creative, original, and artistically sensitive) and *Agreeableness* (i.e., the tendency to be altruistic, trusting, and caring; Costa & McCrae, 1992) have little direct conceptual relevance to confidence in performing well during employment interviews (i.e., I-SE). In addition, job search research does not support relationships between *Openness to Experience* or *Agreeableness* with interview success (i.e., number of offers or employment status; Caldwell & Burger, 1998; Kanfer et al., 2001). Thus, we make no predictions for *Openness to Experience* or *Agreeableness* but include them in our analyses for completeness. We now consider the mediating role of I-SE in linking biographical background (i.e.,

academic achievement and leadership experience) with interview success.

Biographical Background, I-SE, and Interview Success

Job applications include biographical background information (e.g., academic achievement and leadership in extracurricular activities) that can be used by interviewers in assessing applicants (Campion, 1978; Dipboye, Fontenelle, & Garner, 1984). *Academic achievement* refers to the job seeker's overall performance in college courses. To date, research on academic achievement and interview outcomes has been equivocal. For example, although Dipboye et al. (Dipboye, Fontenelle, et al., 1984; Dipboye, Stramler, & Fontenelle, 1984) suggested that academic achievement can influence interviewer evaluations, Graves and Powell (1988) and Cable and Judge (1997) reported that higher academic performance (i.e., grade point average [GPA]) did not predict interview outcomes (i.e., recruiter evaluations or hiring recommendations). In our study, we did not expect academic achievement to be related to I-SE or interview success because superior academic performance and self-efficacy in academic domains (e.g., cognitive skills) does not necessarily transfer (Bandura, Adams, & Beyer, 1977) to employment interview contexts that emphasize social and image-management skills. We included academic achievement in our model to check this expectation.

In contrast, we predicted that those with *leadership experience* would have higher I-SE. Research provides consistent evidence that leadership in extracurricular activities is related to interview success. Brown and Campion (1994) suggested that recruiters use extracurricular leadership to indicate breadth of experience and initiative, and Campion (1978) demonstrated that active leadership and involvement in fraternity or professional societies predicted interview evaluations. Consistent with this, leadership development research suggests that those in leadership positions have stronger interpersonal skills because leadership roles enhance their interpersonal and communication skills (Hogan, Curphy, & Hogan, 1994; Rubin, Bommer, & Baldwin, 2002).

Unlike academic achievement, we argue that skills developed in college leadership roles (e.g., organizing and strategizing, communicating objectives, planning, and providing interpersonal leadership) have direct relevance to the skills required in job interviews (Bandura, 1997). Extracurricular activity leadership allows students to practice and improve their social interactions, influence tactics, self-presentation, and image management. These examples of progressive mastery should enhance perceived self-efficacy in relevant domains (Bandura, 1997). Leadership experience also provides documentation and tangible evidence of interpersonal capabilities that should transfer and be relevant to interviewing self-efficacy. Thus, those with more leadership experience should have confidence in their ability to enact similar behaviors in interviews, leading to higher I-SE.

Consistent with arguments in Hypothesis 3, we also propose that I-SE mediates the effects of leadership experience on interview success. We propose this because I-SE is a more proximal predictor of interview success than leadership experience. In other words, leadership experience influences interview success because of its effect on I-SE.

Hypothesis 4: Leadership experience is positively related to initial I-SE.

Hypothesis 5: Initial I-SE mediates the relationship between leadership experience and interview success.

The Moderating Role of Internal Locus of Causality on the Link Between Interview Success and Subsequent I-SE

The preceding discussion addressed applicant characteristics (e.g., personality and biographical background) and interview success. Further extending our examination of I-SE, we propose that interview success will relate to subsequent I-SE (i.e., job seeker assessment of interviewing efficacy after employment interview experiences). This is because self-efficacy beliefs are not immutable over time. Instead, new information and experiences cause people to revise their efficacy beliefs (Bandura, 1997; Gist & Mitchell, 1992). According to Bandura (1997), actual performance on relevant tasks conveys the most salient information for revising efficacy beliefs. Success heightens self-belief of capability and failure creates self-doubt that lowers self-efficacy (Gist & Mitchell, 1992; Saks, 1995). Applied to college seniors seeking full-time work, interview success (i.e., those who obtain more job offers) provides tangible evidence of skill and mastery in this domain and enhances subsequent I-SE.

Hypothesis 6: Interview success is positively related to subsequent I-SE.

For our last hypothesis, we draw on attribution theory (Weiner, 1986) to consider the role of *locus of causality* attributions in strengthening the relationship between interview success and subsequent I-SE. Causal attributions (i.e., causal ascriptions for events and behaviors) are "the underpinnings for further judgments, emotional reactions, and behavior" (Fiske & Taylor, 1991, p. 54). Individuals use causal attributions to explain their success or failure (e.g., in the job search process) and to make sense of performance outcomes (Bandura, 1997; Schunk, 1982). Weiner (1985) emphasized locus of causality attributions in achievement-related activities as triggering "the most fundamental causal distinction" (p. 551; internal vs. external). *Internal locus* credits performance to the actor, whereas *external locus* credits the situation or luck.

We propose that locus of causality moderates the relationship between interview success and subsequent I-SE, such that internal attributions further strengthen the positive link between interview success and subsequent I-SE. When applicants are successful in interviewing and attribute this success to ability (internal), the interview success–subsequent self-efficacy relationship should be strengthened because internal attributions for success (e.g., job offers) convey positive information about interviewing capabilities and should boost subsequent efficacy beliefs (Bandura, 1997; Schunk, 1982; Weiner, 1979). Similarly, if applicants are not successful (i.e., fail to obtain job offers) and make internal attributions (e.g., personal failing or incapability), this too should strengthen the link between interview outcomes and subsequent I-SE.

In contrast, when applicants believe their success or failure in the job search process is due to external circumstances, the relationship between interview success and subsequent judgments of efficacy should be weaker. This is because external attributions for interview outcomes (e.g., luck or the situation) provide little effi-

cacy information that is relevant to future judgments of personal capabilities (see Anderson, 1983; Fosterling, 1985; Thomas & Mathieu, 1994). Instead, external locus attributions should weaken the relationship between interview success and subsequent I-SE.

Hypothesis 7: Internal locus of causality moderates the positive relationship between interview success and subsequent I-SE, such that the relationship is stronger when success is attributed to internal versus external causes.

Method

Participants and Procedure

Participants in this study were graduating accounting seniors in the business school of a large state university in the western part of Singapore who were seeking entry-level positions with the then Big-Five certified public accountant (CPA) firms in 2001. Because of Singapore's relatively small population, declining birth rates, and rapidly aging population (Van Dyne & Ang, 1998), the unemployment rate was around 3%. As with previous years, the labor market for accounting graduates remained robust with more than 90% of the accounting majors finding jobs either with the Big Five, with other smaller accounting firms, or in other related industries, such as banking and finance.

We collected data from 285 participants who had been invited to interview with at least one CPA firm on initial (T1) I-SE and demographic characteristics (e.g., age and gender). Five months later (T2), after CPA firms had interviewed candidates and made offers, 258 (91% of T1 respondents) provided data on subsequent I-SE (T2) and causal attributions. Students were assured that their responses would remain confidential.

We obtained cumulative GPA and leadership experience in extracurricular activities from university records. Students completed personality questionnaires 3 months before the first survey as an Organizational Behavior course requirement. CPA recruiters provided names of those who were offered jobs. We dropped 29 cases with incomplete information, yielding a final sample of 229 (74% female). Respondents had from one to five job interviews ($M = 2.47$, $SD = 1.32$), and 99 (43%) successfully obtained at least one job offer. We assessed possible nonresponse bias for those who completed both surveys versus those who did not complete the second survey. *T*-tests showed no significant differences for T1 interviewing self-efficacy, biographical background (e.g., academic achievement and leadership in ECA), and the five personality dimensions.¹

Measures

Interview success. Interview success refers to the total number of job offers each respondent received based on CPA firm records.

Interviewing self-efficacy. We measured I-SE (T1) and I-SE (T2) with five items adapted from Wanberg, Kanfer, and Rotundo's (1999) job-search self-efficacy scale (1 = *not at all confident* and 7 = *highly confident*; $\alpha_{(T1)} = .96$; $\alpha_{(T2)} = .96$; see Appendix for specific items).

We tested measurement equivalence of I-SE over time using covariance structure modeling of factor loadings across I-SE (T1) and I-SE (T2). All factor loadings for T1 and T2 were significant with squared multiple correlations of .71 to .91. The $\Delta\chi^2$ between the configural model, $\chi^2(10df) = 207.40$, and the nested factorial invariance model, $\chi^2(14df) = 213.28$, was nonsignificant, $\Delta\chi^2(4df) = 5.88$, *ns*, suggesting measurement equivalence across time.

Personality. We measured personality with the Personal Characteristics Inventory (PCI; Barrick et al., 1993; 1 = *strongly disagree* and 7 = *strongly agree*). Reliabilities (Extraversion = .78, Conscientiousness = .83, Emotional Stability = .74, Openness = .84, and Agreeableness = .76) are generally consistent with prior research (Mount, Witt, & Barrick, 2000).

Biographical background. We obtained university records for cumulative GPA ($M = 3.14$, $SD = .37$) and number of leadership roles in extracurricular activities (e.g., officer or leader of student clubs and committees; $M = 1.18$, $SD = 1.50$) for leadership experience.

Locus of causality. We measured locus of causality with three items on a 9-point, semantic differential scale from the Causal Dimension Scale (CDS; Russell, 1982; Russell, McAuley, & Tarico, 1987). We summed items (e.g., *Is the reason something that reflects an aspect of yourself—reflects an aspect of the situation*) with higher values indicating internal locus. Our reliability ($\alpha = .87$) is consistent with prior research (Donovan & Williams, 2003; Russell et al., 1987; Thomas & Mathieu, 1994).

Control variables. We controlled for total number of applications and total number of interviews because probability of interview success increases with number of applications and interviews. We also controlled for gender (males = 0, females = 1) because males have a higher probability of being hired (McIntyre, Moberg, & Posner, 1980).

Results

Table 1 presents descriptives, correlations, and reliabilities. In light of recent recommendations (e.g., Wilkinson & the Task Force on Statistical Inference, 1999), we also present effect sizes, *p* values, and 95% confidence intervals (CIs) around each of our hypotheses tests.

Table 2 presents hierarchical regression results supporting Hypothesis 1 and demonstrating a positive relationship between initial I-SE (T1) and interview success ($\beta = .22$, $p < .01$, CIs = .09, .35). Initial I-SE accounted for a significant increment in variance ($\Delta R^2 = .03$, $\Delta F(11, 217) = 11.28$, $p < .01$) for predicting interview success over and above personality, biographical background, and control variables (e.g., gender, number of applications, and number of interviews).

Hypotheses 2a–2c and Hypothesis 4 predicted that Extraversion, Conscientiousness, Emotional Stability, and leadership experience would be positively related to initial I-SE (T1). After controlling for gender, number of applications, and number of interviews, Extraversion ($\beta = .49$, $p < .01$, CIs = .38, .60), Conscientiousness ($\beta = .19$, $p < .01$, CIs = .07, .31), and leadership experience ($\beta = .11$, $p < .05$, CIs = .01, .21), but not Emotional Stability ($\beta = .04$, *ns*), were significantly related to initial I-SE (T1). Hence, results support Hypotheses 2a, 2b, and 4 but not Hypothesis 2c (see Table 2).

Hypotheses 3 and 5 predicted mediated relationships that we tested with the approach described by Baron and Kenny (1986). Results for the first condition (i.e., predictor–mediator; see analyses for Hypotheses 2a–c and Hypothesis 4) demonstrated that Extraversion, Conscientiousness, and leadership experience were related to I-SE (T1). Results for the second condition (i.e., mediator–outcome; see analyses for Hypothesis 1) showed that I-SE was significantly related to interview success. Finally, for the third condition (predictor– and mediator–outcome), results demonstrated that Extraversion ($\beta = .05$, *ns*), Conscientiousness ($\beta = .09$, *ns*), and leadership experience ($\beta = .09$, *ns*) failed to reach significance when I-SE was included in the equation. This indicates full mediation for I-SE (T1) and supports Hypotheses 3a, 3b, and 5 but not Hypothesis 3c (see Table 2).

We did not predict relationships for Openness, Agreeableness, or academic achievement on the basis of lack of theoretical and

¹ Results are available from Cheryl Tay.

Table 1
Means, Standard Deviations, Correlations, and Cronbach's Alphas

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Interview success	0.62	0.82	(—)													
2. Initial I-SE (T1)	4.01	1.27	.32**	(.96)												
3. Subsequent I-SE (T2)	4.06	1.21	.44**	.68**	(.96)											
4. Academic achievement	3.14	0.37	.38**	.00	.00	(—)										
5. Leadership experience	1.18	1.50	.18**	.21**	.16**	-.04	(.78)									
6. Extraversion	4.40	0.77	.24**	.56**	.43**	.09	.09									
7. Conscientiousness	5.01	0.67	.27**	.29**	.19**	.27**	.11*	(.83)								
8. Emotional stability	3.72	0.71	.06	.14*	.11	.03	.07	.05	.23**	(.74)						
9. Openness to experience	4.63	0.73	.19**	.32**	.18**	.12*	.14*	.37**	.28**	.12*	(.84)					
10. Agreeableness	4.82	0.64	.12*	.16**	.11*	-.07	.20**	.06	.32**	.26**	.16**	(.76)				
11. Internal locus of causality	5.59	1.58	.33**	.06	.11*	.09	.22**	-.05	.11	-.06	.02	.07	(.87)			
12. Gender ^a	0.74	0.44	-.19**	-.19**	-.20**	-.24**	-.12*	-.12*	-.12*	-.11	-.19**	.04	-.02	(—)		
13. Number of applications	4.86	0.45	-.05	.00	-.01	-.18**	.01	.07	-.07	-.01	.00	.05	-.08	.17**	(—)	
14. Number of interviews	2.47	1.32	.57**	.06	-.10	.66**	.07	.10	.20**	.07	.13*	.12*	.19**	-.22**	.11*	(—)

Note. *n* = 229 for all variables. Cronbach's alpha appears in parentheses. I-SE = interviewing self-efficacy; T1 = initial; T2 = 5 months later.

^a 0 = male; 1 = female.

* *p* < .05. ** *p* < .01.

empirical support for these relationships. Consistent with this, Openness ($\beta = .05, .01, ns$), Agreeableness ($\beta = .02, -.03, ns$), and academic achievement ($\beta = -.10, -.04, ns$) were not significantly related to I-SE or interview success (see Table 2).

Hypothesis 6 predicted a positive relationship between interview success and subsequent I-SE (T2). Results as reported in Table 3 support this prediction ($\beta = .33, p < .01, CIs = .21, .45$) and showed that interview success contributed an additional 6% increment in variance to I-SE (T2), $\Delta R^2 = .06, \Delta F(5, 223) = 30.36, p < .01$, after accounting for gender, number of applications, number of interview invitations, and initial I-SE (T1).

We tested Hypothesis 7 with moderated hierarchical regression (Cohen, Cohen, West, & Aiken, 2003), entering gender, number of applications, number of interview invitations, and initial I-SE in Step 1, interview success in Step 2, internal locus of causality in Step 3, and the interaction between interview success and internal locus of causality in Step 4.

Table 3 shows a significant interaction of interview success with internal locus of causality ($\beta = .16, p < .01, CIs = .06, .26$), supporting Hypothesis 7. The increment in variance for predicting I-SE (T2) was significant, $\Delta R^2 = .02, \Delta F(7, 221) = 10.61, p < .01$. Figure 1 illustrates this interaction (+1.0 *SD* and -1.0 *SD* from the mean; Cohen et al., 2003), supporting Hypothesis 7 such that the positive relationship between interview success and subsequent I-SE was stronger (steeper slope) when locus of causality was internal than when locus of causality was external.

Discussion

This study had three goals: to assess interviewing self-efficacy as a proximal mediator linking individual characteristics with interview success, to assess I-SE beliefs over time, and to assess the moderating role of locus of causality relative to interview success and subsequent I-SE. Theoretical and practical implications are discussed below.

Theoretical Implications

First, this study responds to Barrick, Stewart, and Piotrowski's (2002), Judge and Ilies's (2002), and Locke and Latham's (2004) calls for more research on proximal psychological mechanisms through which distal characteristics influence performance. Results demonstrate that Extraversion, Conscientiousness, and leadership experience influenced interview outcomes indirectly through the more proximal effects of I-SE. Theoretically, these mediated results are important because they enrich our understanding of one process (I-SE) through which individual characteristics influence job search outcomes, and they move beyond prior research that has emphasized direct effects (Hough & Oswald, 2000; Kanfer et al., 2001).

Second, results also demonstrate that relevant performance information (feedback on interview success) changes self-efficacy beliefs over time. Consistent with self-efficacy theory (Bandura, 1986, 1997), job seekers who received more job offers (i.e., interview success) were more confident of their subsequent interviewing capabilities. Theoretically, this confirms the value of positive performance outcomes for enhancing efficacy beliefs (e.g., beliefs about personal capability to interview effectively). Consistent with Shea and Howell's (2000) study of efficacy-per-

Table 2
Hierarchical Regression Analyses

Variable	Initial I-SE		Interview success		
	Step 1	Step 2	Step 1	Step 2	Step 3
Gender	-.19**	-.10	-.04	-.00	.02
Number of applications	.03	-.03	-.10	-.12*	-.12*
Number of interviews	.02	.01	.57**	.58**	.58**
Extraversion		.49**		.16**	.05
Conscientiousness		.19**		.14*	.09
Emotional stability		.04		-.03	-.04
Openness		.05		.02	.01
Agreeableness		.02		-.02	-.03
Academic achievement		-.10		-.06	-.04
Leadership experience		.11*		.12*	.09
Initial I-SE					.22**
ΔF		18.18**		3.46**	11.28**
ΔR^2		.36		.06	.03
R^2	.04	.39	.34	.40	.43
Adjusted R^2	.02	.36	.33	.38	.41
df	3, 225	10, 218	3, 225	10, 218	11, 217
F	2.84*	14.03**	38.39**	14.82**	15.13**

Note. $n = 229$. Values in the upper half of the table are standardized regression coefficients. I-SE = interviewing self-efficacy.

* $p < .05$. ** $p < .01$.

formance spirals, results also showed that initial I-SE influenced subsequent self-efficacy.

Third, results also demonstrate that internal attributions for interview success moderated the relationship between interview success and subsequent I-SE. When job seekers believed that job search outcomes (number of offers) were caused by their own behavior, the relationship between interview success and subsequent self-efficacy was stronger. On the other hand, and as expected, attributions to external causes weakened this relationship.

We also note that, as expected, Openness to Experience, Agreeableness, and academic achievement were not significant predictors of I-SE in the regression analysis. This makes sense because

these characteristics are not particularly salient to self-regulated behavior and performance in interview settings. This is consistent with prior research that Openness to Experience, Agreeableness, and academic achievement do not relate to interview success when other aspects of personality, biographical background, and demographic characteristics are included as predictors (Caldwell & Burger, 1998; De Fruyt & Mervielde, 1999).

Contrary to expectations, Emotional Stability did not affect perceptions of I-SE when controls (e.g., gender, number of applications, and number of interviews), all five personality dimensions, and biographical characteristics were considered simultaneously. Perhaps an individual's typical emotional state does not offer unique information with relevance to interviewing efficacy. In addition, Emotional Stability was not related to interview success, suggesting support for Barrick, Patton, and Haugland's (2000) contention that Emotional Stability is less relevant in the short duration of employment interviews.

Table 3
Hierarchical Regression Analyses of Subsequent Interviewing Self-Efficacy (I-SE)

Variable	Step 1	Step 2	Step 3	Step 4
Gender	-.07	-.07	-.07	-.05
Number of applications	-.00	.04	.03	.03
Number of interviews	.04	-.14*	-.14*	-.13*
Initial I-SE	.66**	.57**	.56**	.55**
Interview success (IS)		.33**	.33**	.27**
Internal locus of causality (IL)			-.00	.03
IS \times IL				.16**
ΔF		30.36**	.00	10.61**
ΔR^2		.06	.00	.02
R^2	.47	.53	.53	.55
Adjusted R^2	.46	.52	.52	.54
df	(4, 224)	(5, 223)	(6, 222)	(7, 221)
F	49.17**	50.56**	41.94**	39.02**

Note. $n = 229$. Values in the upper half of the table are standardized regression coefficients. I-SE = interviewing self-efficacy.

* $p < .05$. ** $p < .01$.

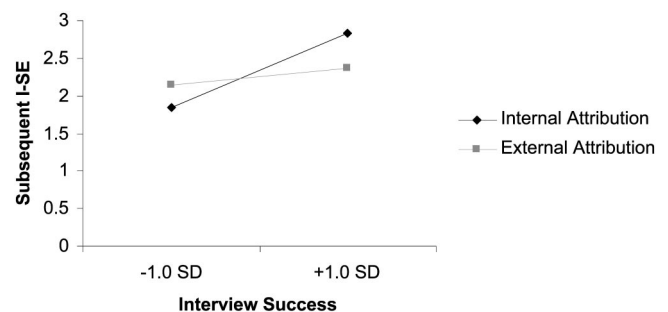


Figure 1. Interaction between interview success and locus of causality attributions in predicting subsequent interviewing self-efficacy (I-SE).

Practical Implications

Our study also has important practical implications. Results suggest that more distal characteristics such as Extraversion, Conscientiousness, and leadership experience (which tend to be fixed at the time of job search and are relatively stable) are less salient to applicants than more proximal factors, such as I-SE. Accordingly, job seekers should develop their interviewing self-efficacy. As demonstrated in our study, I-SE is dynamic and malleable (Bandura, 1997; Gist & Mitchell, 1992). Thus, employment agencies, career counseling programs, and placement services should develop training programs to help applicants enhance their interviewing self-efficacy (Wanberg et al., 1999). More specifically, Bandura's (1997) work on sources of efficacy provides specific suggestions for changing efficacy cognitions: vicarious learning (e.g., watching videos), behavior practice (e.g., role playing), and verbal persuasion (e.g., personal counseling).

The attributions for interview success results suggest a second set of practical implications. Internal attributions for interview success strengthened the relationship between interview success and subsequent self-efficacy. Thus, another way to change self-efficacy is through attribution processes. For example, educational programs could provide attribution training for job seekers that helps them see job search failures as externally driven. This should enhance confidence in interviewing capabilities, which, on the basis of our research, should enhance interview success.

Strengths, Limitations, and Future Research

This research has a number of strengths. First, we extended prior research by investigating interviewing self-efficacy as a psychological mechanism that links distal individual characteristics (e.g., personality and biographical background) with interview success. We also furthered our understanding of this specific form of self-efficacy by examining it at two points in time (separated by 5 months) and by considering the moderating role of causal attributions in influencing the relationship between performance and subsequent self-efficacy.

Second, we applied self-efficacy and attribution theories within an actual employment situation in which job seekers interviewed with real firms for ongoing full-time employment. This addresses a long-standing recommendation for more theory-based field studies of the employment interview process (Campion, Palmer, & Campion, 1997; Hough & Oswald, 2000; Huffcutt et al., 1996; Posthuma et al., 2002; Schmidt & Rader, 1999). Results, thus, should be more relevant and generalizable than findings from simulations or laboratory studies, in which outcomes do not have personal consequences to job seekers or recruiting organizations.

Third, we used a rigorous design with data taken from multiple informants (e.g., students seeking jobs, university administrators, and campus recruiters) and multiple sources (surveys, archival records, and organization records), and at multiple times (longitudinally over 5 months). Compared with cross-sectional, self-report data, our approach minimizes self-presentation and self-enhancement bias.

Fourth, results from our hierarchical regression analyses show that our model of personality, biographical characteristics, and interviewing self-efficacy explained significant variability in interview success, $R^2 = .43$, $F(11, 217) = 15.13$, $p < .01$. Given that

we are predicting an objective outcome (number of offers), the large variance explained is a key strength of this study. That the results showed such significant variance even when predicting objective outcome is indicative of the predictive power of our study's hypothesized relationships and importance of our findings.

A boundary condition is that our sample was limited to graduating seniors seeking entry-level positions in accounting firms. Thus, findings have special relevance to college students and firms seeking to fill accounting jobs. To address this potential limitation, future research should assess whether findings generalize to other majors and other types of schools (high schools, vocational schools, and junior colleges; Kanfer et al., 2001). We note that we limited our sample to students who were invited to interviews. We also note the relatively high level of academic achievement in our sample. Thus, our results may not generalize to those who do not have the opportunity to interview or to those with lower academic performance.

Lastly, we focus on one mediator (I-SE) only. We recommend future research on other proximal predictors such as communication skills, impression management ability, self-awareness, accuracy of self-image, and physical appearance (Posthuma et al., 2002) as sources of additional insight for enhancing interview success. Future research should also examine other moderators such as availability of jobs in general. Perhaps the interview success-I-SE (T2) relationship is weaker when jobs are scarce. Finally, experimental designs or protocol analysis would supplement our field study. Our model also could be expanded to include additional outcomes such as whether and under what circumstances I-SE is related to efficacy beliefs for job performance, promotions, withdrawal, and turnover (Bandura & Adams, 1977; Bandura et al., 1977; Boudreau et al., 2001).

In conclusion, this study demonstrates that the proximal construct of interviewing self-efficacy fully mediated the effects of more distal individual characteristics (Extraversion, Conscientiousness, and leadership experience) on interview success. We recommend continued research on interviewing self-efficacy as a proximal predictor of additional interview outcomes.

References

- Anderson, C. A. (1983). Motivational and performance deficits in interpersonal settings: The effects of attributional style. *Journal of Personality and Social Psychology*, *45*, 1136-1147.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1989). Regulation of cognitive processes through perceived self-efficacy. *Developmental Psychology*, *25*, 729-735.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, A., & Adams, N. E. (1977). Analysis of self-efficacy theory of behavioral change. *Cognitive Therapy and Research*, *1*, 287-310.
- Bandura, A., Adams, N. E., & Beyer, J. (1977). Cognitive processes mediating behavioral change. *Journal of Personality and Social Psychology*, *35*, 125-139.
- Bandura, A., & Schunk, D. H. (1981). Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. *Journal of Personality and Social Psychology*, *41*, 586-598.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173-1182.

- Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology, 44*, 1–25.
- Barrick, M. R., Mount, M. K., & Judge, T. A. (2001). Personality and performance at the beginning of the new millennium: What do we know and where do we go next? *International Journal of Selection and Assessment, 9*, 9–30.
- Barrick, M. R., Mount, M. K., & Strauss, J. P. (1993). Conscientiousness and performance of sales representatives: Test of the mediating effects of goal setting. *Journal of Applied Psychology, 78*, 715–722.
- Barrick, M. R., Patton, G. K., & Haugland, S. N. (2000). Accuracy of interviewer judgments of job applicant personality traits. *Personnel Psychology, 53*, 925–951.
- Barrick, M. R., Stewart, G. L., & Piotrowski, M. (2002). Personality and job performance: Test of the mediating effects of motivation among sales representatives. *Journal of Applied Psychology, 87*, 43–51.
- Boudreau, J. W., Boswell, W. R., Judge, T. A., & Bretz, R. D., Jr. (2001). Personality and cognitive ability as predictors of job search among employed managers. *Personnel Psychology, 54*, 25–50.
- Brown, B. K., & Campion, M. A. (1994). Biodata phenomenology: Recruiters' perceptions and use of biographical information in resume screening. *Journal of Applied Psychology, 79*, 897–908.
- Cable, D. M., & Judge, T. A. (1997). Interviewers' perceptions of person-organization fit and organizational selection decisions. *Journal of Applied Psychology, 82*, 546–561.
- Caldwell, D. F., & Burger, J. M. (1998). Personality characteristics of job applicants and success in screening interviews. *Personnel Psychology, 51*, 119–136.
- Campion, M. A. (1978). Identification of variables most influential in determining interviewers' evaluations of applicants in a college placement center. *Psychological Reports, 42*, 947–952.
- Campion, M. A., Palmer, D. K., & Campion, J. E. (1997). A review of structure in the selection interview. *Personnel Psychology, 50*, 655–702.
- Chen, G., Casper, W. J., & Cortina, J. M. (2001). The roles of self-efficacy and task complexity in the relationships among cognitive ability, conscientiousness, and work-related performance: A meta-analytic examination. *Human Performance, 14*, 209–230.
- Chen, G., Gully, S. M., Whiteman, J. A., & Kilcullen, R. N. (2000). Examination of relationships among trait-like individual differences, state-like individual differences, and learning performance. *Journal of Applied Psychology, 85*, 835–847.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Hillsdale, NJ: Erlbaum.
- Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO personality inventory (NEO-PI-R) and NEO Five-Factor inventory (NEO-FFI) professional manual*. Odessa, FL: Psychological Assessment Resources.
- De Fruyt, F., & Mervielde, I. (1999). RIASEC types and Big Five traits as predictors of employment status and nature of employment. *Personnel Psychology, 52*, 701–727.
- Dipboye, R. L., Fontenelle, G. A., & Garner, K. (1984). Effects of previewing the application on interview process and outcomes. *Journal of Applied Psychology, 69*, 118–128.
- Dipboye, R. L., Stramler, C. S., & Fontenelle, G. A. (1984). The effects of the application on recall of information from the interview. *Academy of Management Journal, 27*, 561–575.
- Donovan, J. J., & Williams, K. J. (2003). Missing the mark: Effects of time and causal attributions on goal revision in response to goal-performance discrepancies. *Journal of Applied Psychology, 88*, 379–390.
- Dunn, W. S., Mount, M. K., Barrick, M. R., & Ones, D. S. (1995). Relative importance of personality and general mental-ability in managers' judgments of applicant qualifications. *Journal of Applied Psychology, 80*, 500–509.
- Fiske, S. T., & Taylor, S. E. (1991). *Social cognition*. New York: McGraw-Hill.
- Fosterling, F. (1985). Attributional retraining: A review. *Psychological Bulletin, 98*, 495–512.
- Gist, M. E., & Mitchell, T. R. (1992). Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management Review, 17*, 183–211.
- Gist, M. E., Schwoerer, C., & Rosen, B. (1989). Effects of alternative training methods on self-efficacy and performance in computer software training. *Journal of Applied Psychology, 74*, 884–891.
- Graves, L. M., & Powell, G. N. (1988). An investigation of sex discrimination in recruiters' evaluations of actual applicants. *Journal of Applied Psychology, 73*, 20–29.
- Hogan, R., Curphy, G. J., & Hogan, J. (1994). What we know about leadership: Effectiveness and personality. *American Psychologist, 49*, 493–504.
- Hough, L. M., & Oswald, F. L. (2000). Personnel selection: Looking toward the future: Remembering the past. *Annual Review of Psychology, 51*, 631–664.
- Huffcutt, A. I., Roth, P. L., & McDaniel, M. A. (1996). A meta-analytic investigation of cognitive ability in employment interview evaluations: Moderating characteristics and implications for incremental validity. *Journal of Applied Psychology, 81*, 459–473.
- Judge, T. A., & Ilies, R. (2002). Relationship of personality to performance motivation: A meta-analytic review. *Journal of Applied Psychology, 87*, 797–807.
- Kanfer, R., Wanberg, C. R., & Kantrowitz, T. M. (2001). Job search and employment: A personality-motivational analysis and meta-analytic review. *Journal of Applied Psychology, 86*, 837–855.
- Landy, F. J., & Shankster, L. J. (1994). Personnel selection and placement. *Annual Review of Psychology, 45*, 261–296.
- Locke, E. A., & Latham, G. P. (2004). What should we do about motivation theory? Six recommendations for the twenty-first century. *Academy of Management Review, 29*, 388–403.
- Martocchio, J. J., & Judge, T. A. (1997). Relationship between conscientiousness and learning in employee training: Mediating influences of self-deception and self-efficacy. *Journal of Applied Psychology, 82*, 764–773.
- McIntyre, S., Moberg, D. J., & Posner, B. Z. (1980). Preferential treatment in preselection decisions according to sex and race. *Academy of Management Journal, 23*, 738–749.
- Mount, M. K., Witt, L. A., & Barrick, M. R. (2000). Incremental validity of empirically keyed biodata scales over GMA and the five factor personality constructs. *Personnel Psychology, 53*, 299–323.
- Phillips, J. M., & Gully, S. M. (1997). Role of goal orientation, ability, need for achievement, and locus of control in the self-efficacy and goal-setting process. *Journal of Applied Psychology, 82*, 792–802.
- Posthuma, R. A., Morgeson, F. P., & Campion, M. A. (2002). Beyond employment interview validity: A comprehensive narrative review of recent research and trends over time. *Personnel Psychology, 55*, 1–81.
- Rubin, R. S., Bommer, W. H., & Baldwin, T. T. (2002). Using extracurricular activity as an indicator of interpersonal skill: Prudent evaluation or recruiting malpractice. *Human Resource Management, 41*, 441–454.
- Russell, D. (1982). The Causal Dimension Scale: A measure of how individuals perceive causes. *Journal of Personality and Social Psychology, 42*, 1137–1145.
- Russell, D., McAuley, E., & Tarico, V. (1987). Measuring causal attributions for success and failure: A comparison of methodologies for assessing causal dimensions. *Journal of Personality and Social Psychology, 52*, 1248–1257.
- 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.
- Schmidt, F. L., & Rader, M. (1999). Exploring the boundary conditions for

- interview validity: Meta-analytic validity findings for a new interview type. *Personnel Psychology*, 52, 445–464.
- Schunk, D. H. (1982). Effects of effort attributional feedback on children's perceived self-efficacy and achievement. *Journal of Educational Psychology*, 74, 548–556.
- Shea, C. M., & Howell, J. M. (2000). Efficacy-performance spirals: An empirical test. *Journal of Management*, 26, 791–812.
- Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin*, 124, 240–261.
- Taylor, M. S., Locke, E. A., Lee, C., & Gist, M. E. (1984). Type A behavior and faculty research productivity: What are the mechanisms? *Organizational Behavior and Human Performance*, 34, 402–418.
- Thomas, K. M., & Mathieu, J. E. (1994). Role of causal attributions in dynamic self-regulation and goal processes. *Journal of Applied Psychology*, 79, 812–818.
- Van Dyne, L., & Ang, S. (1998). Organizational citizenship behavior of contingent workers in Singapore. *Academy of Management Journal*, 41, 692–703.
- Wanberg, C. R., Kanfer, R., & Rotundo, M. (1999). Unemployed individuals: Motives, job-search competencies, and job-search constraints as predictors of job seeking and reemployment. *Journal of Applied Psychology*, 84, 897–910.
- Weiner, B. (1979). A theory of motivation for some classroom experiences. *Journal of Educational Psychology*, 71, 3–25.
- Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, 92, 548–573.
- Weiner, B. (1986). *An attributional theory of motivation and emotion*. New York: Springer-Verlag.
- Wilkinson, L., & Task Force on Statistical Inference. (1999). Statistical methods in psychology journals. *American Psychologist*, 54, 594–604.

Appendix

Interviewing Self-Efficacy Items

Please indicate the response that BEST describes yourself.
(1 = not at all; 4 = to some extent; 7 = to a very great extent)

How confident are you that you can successfully:

1. Prepare for an interview?
2. Persuade potential employers during the job interview to consider you for a job?
3. Market your skills and abilities during the job interview?
4. Make the best impression during the job interview?
5. Get your points across in the job interview?

Note. Adapted from “Unemployed Individuals: Motives, Job-Search Competencies, and Job-Search Constraints as Predictors of Job Seeking and

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