GREEN BY COMPARISON: DEVIANT AND NORMATIVE TRANSMUTATIONS OF JOB SEARCH ENVY IN A TEMPORAL CONTEXT

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We propose a novel temporal-based theory of how a painful social comparative emotion—job search envy—transmutes as deviant or normative job search behaviors (resume fraud or search effort). We theorize that as job searches progress across time or discrete events, temporal-based pressure increases via perceptions that situations are less changeable or more critical, propelling envious job seekers toward deviant rather than normative search behavior. We propose that market-based pressure, deriving from employment opportunity perceptions, further moderates these effects. In a first study of unemployed job seekers, after more search time passes, job search envy relates to deviant search behavior. Market pressure further qualifies this relationship, although contrary to our prediction, lower market pressure exacerbates rather than attenuates the relationship. Study 2, a two-year study of graduate students engaged in internship and full-time job searches, focuses on event-based temporal pressure and mostly replicates the Study 1 findings. It also indicates that under lower event and market pressures, job seekers expend more effort but do not commit resume fraud in response to job search envy. Overall, we conclude that job search envy transmutes differently depending on temporal- and market-based contingencies and discuss future research possibilities.

Your closest co-worker just got a new job...and it makes you crazy because that could have been you. You're as qualified as her; you have the same background and experience...why weren't you the one who got a new job?

-Post on career.global2.vic.edu.au

After attending some "job club" meetings, I can tell you the envy level is high.

—Post on pilotmilitarycontractor.wordpress.com

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The stress, uncertainty, and oft-elongated nature of job search, and the means by which job seekers attempt to navigate it, continually captivate researchers (e.g., Kanfer, Wanberg, & Kantrowitz, 2001; Sun, Song, & Lim, 2013; Wanberg, Glomb, Song, & Sorenson, 2005). Although job searches tend to be executed intra-individually, and have mostly been studied this way (e.g., Wanberg, Basbug, Van Hooft, & Samtani, 2012), they are often highly competitive and fraught with social comparative information regarding others' search successes, as the above quotations illustrate. Unprecedented numbers of job searches (11 on average before the age of 44; BLS, 2010) and proliferating comparative information via social media (Krasnova, Wenninger, Widjaja, & Buxmann, 2013) have converged to render the activities and successes of other job seekers more salient and impactful than ever before. Established research traditions (Festinger, 1954; Goodman & Haisley, 2007) and recent mainstream accounts (Kalning, 2014; Martin, 2013) indicate that such social comparisons evoke various emotions; primarily envy, or "pain from unfavorable or upward social comparisons" (Tai, Narayanan, & McAllister, 2012: 108). One recent source observed, "If envy is fed by people comparing themselves to others, then Facebook, Twitter, LinkedIn and other sites are gourmet meals for those willing to take a seat at the table" (Knowledge@Wharton, 2014).

Envy unpleasantly and painfully threatens the core of one's professional identity (Duffy, Scott, Shaw, Tepper, & Aquino, 2012; Smith, 2004; Vidaillet, 2007) and is a call to action that likely prompts compensatory behaviors when it occurs in a crucial domain such as job search. Research in the broader social and organization literature suggests that envy may evoke deviant responses such as sabotage, revenge and counterproductive work behavior, as well as constructive responses such as increased effort and performance (Duffy, Shaw, & Schaubroeck, 2008; Smith & Kim, 2007; van de Ven, Zeelenberg, & Pieters, 2009, 2011). In the job search domain, while several applied sources cast envy as one of the "seven deadly sins of job searching" (CollegeRecruiter, 2009; Phillips, 2014; Surban, 2013), other sources note its potential positive effects, such as enhanced effort and persistence (e.g., Martin, 2013). Yet, despite the popularized intrigue surrounding envy during job search, along with the potential individual and organizational implications of this emotion, it is remarkably absent from the job search literature.

In this research, we introduce and examine job search envy, defining it as a situational form of envy specific to the job search domain. Job search envy is unlike dispositional envy, the generalized tendency to experience envy across life situations (e.g., Smith, Parrott, Diener, Hoyle, & Kim, 1999), or episodic envy, which derives from one specific occurrence or encounter with a particular target person (e.g., Cohen-Charash, 2009). As job seekers compare their situations with other seekers, multiple domain-related incidents and referents can generate job search envy (e.g., Duffy et al., 2012; Wood, 1996). We propose a novel temporal-based theory of how job search envy transmutes as either deviant resume fraud, in which job seekers intentionally misrepresent information on their resumes in an effort to present themselves more favorably than is accurate, or through normative effortful behavior, in which they submit more employment applications.

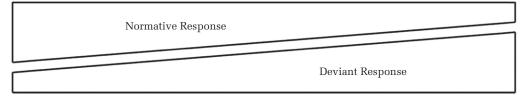
Figure 1 presents a conceptual model of deviant and normative behavioral responses to job search envy. Figure 2 illustrates our hypotheses, which we test in two field studies. We argue that job seekers respond to job search envy in ways that vary across the search, that behavioral responses depend on temporal- and market-based job search pressures, and that these pressures intensify as job seekers: (1) spend more time in a search process; (2) engage in increasingly critical (i.e., important) search events; and (3) perceive that employment opportunities are scarcer. For example, when employment opportunities appear plentiful, seekers may experience and respond to job search envy quite differently than they do when opportunities appear scarce. Likewise, responses may depend on how long the search takes. More specifically, Figure 1 proposes that pressures, and therefore behavioral reactions, vary as searches seem more or less critical and changeable (Festinger, 1954; Lazarus, 1991).

Our first study of unemployed job seekers investigates how clock-based temporal pressure regarding chronological time spent searching for a job (Ancona, Okhuysen, & Perlow, 2001; Lopez-Kidwell, Grosser, Dineen, & Borgatti, 2013) and market-based pressure regarding available employment opportunities (Griffeth, Steel, Allen, & Bryan, 2005) induce deviant behavioral responses to job search envy. In a second study of master's student job seekers over a two-year period comprising internship and fulltime job search events, we consider how marketbased pressure and event-based temporal pressure regarding a series of increasingly important search events (Ancona et al., 2001) affect deviant and normative reactions to job search envy. Specifically, given combinations of these temporal- and marketbased pressures, Figure 1 proposes that job seekers experience job search envy through a challengeoriented lens when they are under lower search pressure, and through a threat-oriented lens when they are under higher pressure (Tai et al., 2012). Challenge-oriented job search envy evokes normative behavioral responses, such as increased effort. Threat-oriented job search envy evokes deviant behavioral responses, such as resume fraud.

Our research contributes to the envy, job search, and social comparison literatures in three ways. First, job search is a particularly high stakes yet uncertain process that often yields little feedback (e.g., Manciagli, 2014). Thus, job search social comparisons can provide valuable normative information about how much effort to exert, how to cope appropriately, and which job opportunities to pursue (e.g., Eddleston, 2009; Kilduff, 1990; Lopez-Kidwell et al., 2013). Yet, as noted, job search studies

FIGURE 1 Transmutation of Job Search Envy as a Function of Temporal- and Market-Based Job Search Pressures

	Lower:	•	Higher:
-	Shorter Time in Search Process	Temporal Pressure: Clock-Based "Changeability"	Longer Time in Search Process
_	Less Critical Event in Search Process	Temporal Pressure: Event-Based "Criticality"	More Critical Event in Search Process
	Plentiful Employment Opportunities	Market-Based Pressure "Changeability" and "Criticality"	Scarce Employment Opportunities
	Challenge-Oriented	Envy Lens	Threat-Oriented

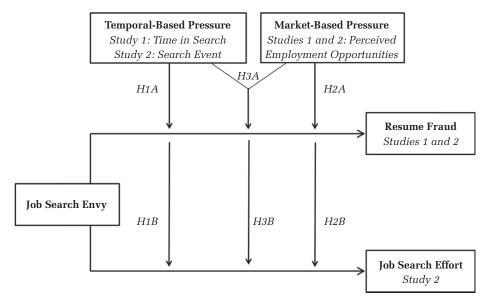


predominantly focus on intra-individual regulatory mechanisms (e.g., Wanberg, Basbug, et al., 2012) rather than on social comparative mechanisms as the primary means job seekers use to determine appropriate search behaviors. To address this disparity, we conceptualize

job search envy as a crucial socio-emotional factor linking inevitable job seeker social comparisons to subsequent search behaviors.

Second, we respond to calls for understanding social comparative evaluations within a temporal

FIGURE 2 Overview of Hypotheses



framework (Goodman & Haisley, 2007; Hoogland, Thielke, & Smith, 2017; Shipp & Cole, 2015). Specifically, we consider various job search pressures across search processes as they affect proclivity toward deviant or normative responses to job search envy. Thus, we argue that seekers may interpret and act on social comparisons differently across time or events.

Third, envy scholars have proposed that envy has both positive and negative transmutations (Lee & Duffy, 2014; Smith & Kim, 2007; Tai et al., 2012). By contrast, job search scholars have traditionally focused on positive behaviors such as effort or intensity (Lopez-Kidwell et al., 2013; Wanberg, Zuh, Kanfer, & Zhang, 2012). However, media and scholarly attention has begun to focus on subversive and dysfunctional search behaviors such as embellished interview responses and resume fraud (Callahan, 2004; Levashina & Campion, 2007; Singal, 2015). It is pertinent, then, to consider both deviant and normative behavioral transmutations of job search envy. More important, our novel approach illuminates a paradoxical issue that continues to puzzle envy researchers: why does envy sometimes evoke destructive, threat-based responses while at other times it evokes constructive, challenge-based responses (Gino & Pierce, 2009; Kouchaki & Desai, 2015; Schaubroeck & Lam, 2004; Tai et al., 2012)?

THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

Social Comparisons and Deviant or Normative Transmutations of Job Search Envy

A universal feature of human existence is that individuals assess their standing in high stakes or uncertain situations by observing information about others in relation to themselves; that is, by making social comparisons (e.g., Buunk & Gibbons, 2007; Festinger, 1954; Goodman & Haisley, 2007). Although Festinger's (1954) social comparison theory originally proposed that people prefer objective to subjective social comparative information when judging their abilities, Buunk and Gibbons (2007: 5) recently concluded that Festinger underestimated the importance of social comparisons, stating, "five decades of research have shown that this is often not the case." Social comparisons are inevitable (Duffy et al., 2008; Greenberg, Ashton-James, & Ashkanasy, 2007), and job seekers often fall short when they draw them. As a result, they experience job search envy.

In this study, we focus on job search envy as an often frustrating and painful upward social comparison in which job seekers desire resources or successes that referent others possess (Duffy et al., 2012; Smith, 2004). Scholars have suggested that competitive situations such as job search cause individuals to contrast themselves with others, or focus on their differences, rather than assimilating, or focusing on similarities (e.g., Brown, Ferris, Heller, & Keeping, 2007; Mussweiler, Ruter, & Epstude, 2004). Upward contrasting social comparisons then evoke negative emotional responses such as envy. Social comparison theory asserts that social comparison based emotions ubiquitously shape behavior (Festinger, 1954; Greenberg et al., 2007). For example, Buunk and Gibbons (2007: 5) propose that upward comparisons evoke defensiveness, stating that "a superior other may...induce a threat that needs to be counteracted."

Comparative discrepancies and perceptions of threat rather than challenge are likely to generate retaliations, deceptions, or expressions of anger or resentment (Smith & Kim, 2007). Accordingly, organizational research finds that envy tends to result in destructive behavioral patterns (Cohen-Charash & Mueller, 2007; Duffy et al., 2012; Vecchio, 2007). Thus, job search envy may transmute to unscrupulous behaviors such as embellished interviews and resume fraud (Callahan, 2004; Levashina & Campion, 2007).

On the other hand, theory and evidence indicate that envy may also be adaptive by showing individuals that their performance is relatively inadequate (Hill, DelPriore, & Vaughan, 2011) and motivating them to "move up" to a better position (Smith & Kim, 2007; Tai et al., 2012). From a sociofunctional view, envy can propel individuals to mobilize their resources to advance their relative positions (Lee & Duffy, 2014). Job search envy may evoke harder work to obtain desired outcomes (Foster, 1972; Schaubroeck & Lam, 2004; van de Ven et al., 2009), such as more applications, more active networking, or more time devoted to search (Boswell, Zimmerman, & Swider, 2012; Sun et al., 2013; Wanberg, Zuh, et al., 2012).

Moderating Effects: Temporal- and Market-Based Pressures

When are job seekers most likely to redress job search envy through deviant or normative behavior? Might they simply redouble efforts as time passes or when they encounter more critical search events? Might they try to "get a jump" on competitors through deviant means as soon as employment alternatives appear scarce? Or might they wait until they have exhausted normative options before engaging in deviant behavior? As we have argued, the answers

depend on the pressures job seekers experience as they search for jobs. Specifically, as Figure 1 shows, job search envy is an evolving, temporal-based emotion; it exhibits different transmutations depending on perceived temporal- and market-based pressures.

Scholars have identified increased pressure as key to understanding whether people engage in normative behaviors versus counterproductive or deviant behaviors (e.g., Greenberg, 1997; Grover, 1993; Treviño, 1986). That is, under lower pressure, individuals should exhibit normative behavior, whereas increased pressure causes individuals to resort to deviant behaviors as coping mechanisms that will allow them to achieve desired outcomes (e.g., Grover & Hui, 2005; Schweitzer, Ordóñez, & Douma, 2004). For example, scarce resources or competition encourage illegal or deviant work behavior (Hegarty & Sims, 1979; Staw & Szwajkowski, 1975). Likewise, time pressures can instigate unethical decision making in organizations (Treviño, 1986). We describe next how temporal- and marketbased pressures determine job search envy's transmutation to job search behaviors.

Temporal-based pressures. In terms of job search temporality, Figure 1 proposes that search pressure increases when job seekers: (1) spend more time in search (clock-based pressure); or (2) navigate a series of increasingly critical events (event-based pressure). First, in terms of clock-based pressure (Ancona et al., 2001), as job seekers progress chronologically through a job search, they perceive that their situation is increasingly immutable and unchangeable (Mussweiler et al., 2004), which increases pressure and a threat-oriented experience of job search envy. Lazarus (1991) and Weiss and Cropanzano (1996) explain that people, when reacting emotionally, assess how certain a current success or deficiency is, and whether situational deficiencies are rectifiable: i.e., can they change for better or worse or are situations relatively fixed? Scholars have also described how people, after an initial automatic social comparison, subsequently "de-compare," or cognitively imagine why they have failed to compare favorably (see Buunk & Gibbons, 2007). By extension, the decomparing process might induce situation changeability appraisals, such as "I wish I were in Jody's position, but I still have time to land a job just like he did. If I keep pushing, things will change!"

Across time, we argue that job seekers tend to perceive their searches according to apparent constraints or inflexibilities, such as explicit or implicit deadlines (e.g., attaining a job "by graduation" or "within the next month"), and regulate their job search behaviors accordingly (Lopez-Kidwell et al., 2013). After a shorter time, the situation may seem more in flux and thus changeable. In this context, job seekers are less pressured and likely frame their envious feelings through a challenge-oriented lens, responding with increased constructive efforts to improve their situation. By contrast, the likelihood of changing the situation decreases as time passes and changeability perceptions therefore ebb. When hope of achieving social parity diminishes and narrower outcomes seem feasible (e.g., if a job seeker thinks, "It's too late. I'll never have Juan's success on the job market"), job seekers become more susceptible to a threat-orientation and are more likely to respond with deviant behavior. In line with our reasoning, Lockwood and Kunda (1997) showed that referent "stars" provoked self-enhancement when their success seemed attainable; e.g., when enough time remained to achieve similar success levels as these stars. However, the stars evoked self-deflation when their success seemed unattainable, via an alreadymissed chance to achieve comparable success.

Regarding event-based pressure (Ancona et al., 2001), for purposes of our theorizing we assume that sequential job search events are increasingly critical; i.e., important. For example, although job seekers must perform well in their first interviews if they are to be invited to site visits, they will likely perceive site visits as more critical than first interviews, in terms of financial implications or repercussions and publicity of failure. Whether site visits occur immediately or long after first interviews, they involve more pressure.

Festinger's (1954) seminal work recognized that social comparisons can vary in importance and urged researchers to consider the relative importance or criticality of social comparisons when people draw them. Accordingly, we theorize that the relative criticality of a sequence of job search events increases pressure (see Figure 1). That is, increased event importance (e.g., post-graduation job versus internship seeking) increases the pressure to reduce social comparative discrepancies concerning event progress. Similarly, Lazarus (1991) and Weiss and Cropanzano (1996) discuss how event relevance is central to evoked emotions and consequent responses; outcome criticality is essential to primary emotional appraisals.

Taken together, across an extended search process comprising increasingly critical internship and job search events, an envious student-internship seeker might react to envy by thinking, "I wish I had an internship like my classmates have. But, internships are not permanent jobs, and I'm encouraged that others have had success. If I try harder, I bet I can do as

well or better than they did!" As such, we would expect that job search envy occurring in the context of lower clock- or event-based search pressures would evoke the challenge-based response of increased effort among envious seekers. In contrast, an envious job seeker may think, "My classmates are all landing jobs. I can't imagine not having one and nothing I'm doing is working. I'd better do whatever it takes to get one." As such, job search envy occurring in the context of higher clock- or event-based search pressures triggers envious job seekers to respond with a threat-based response of resume fraud. Thus, we propose:

Hypothesis 1A. Temporal-based pressures will moderate the relationship between job search envy and resume fraud; the relationship will be more strongly positive when temporal-based pressures are higher (i.e., after more search time or during more critical search events).

Hypothesis 1B. Temporal-based pressures will moderate the relationship between job search envy and job search effort; the relationship will be more strongly positive when temporal-based pressures are lower (i.e., during less critical search events).

Market-based pressure. Another key pressure job seekers face is whether alternative employment opportunities are available (e.g., Griffeth et al., 2005; Swider, Boswell, & Zimmerman, 2011). We theorize that job search pressure is attenuated when seekers perceive favorable employment opportunities and exacerbated when they perceive unfavorable employment opportunities, such that opportunities make resource availability in the form of jobs more salient. Returning to our earlier theorizing, resource availability implies varying levels of situation changeability (i.e., whether the seeker has sufficient options for rectifying unfavorable search comparisons), and criticality (i.e., whether the current search event is more critical because other options are limited).

We assert first that job search envy will more strongly relate to resume fraud when employment opportunities are scarce. That is, job seekers will perceive their situation as more critical (e.g., "I really need this job") and less changeable (e.g., "I have few options"). Under pressure, they will doubt whether they can adequately redress job search envy through greater effort, and will instead be more prone to deviant search behavior.

We also propose that job search envy will more strongly relate to normative search effort when employment opportunities seem plentiful. Ample alternative employment opportunities indicate that the situation is less critical and more changeable, so envious job seekers will believe that normative effort is sufficient for redressing their envy. Although plentiful opportunities may make increased effort seem less necessary, unfavorable upward comparisons generate the need to redress job search envy in some way. With greater changeability and less criticality associated with plentiful opportunities, seekers should be able to use normative means.

Hypothesis 2A. Market-based pressure will moderate the relationship between job search envy and resume fraud; the relationship will be more strongly positive when market-based pressure is higher (i.e., scarce employment opportunities).

Hypothesis 2B. Market-based pressure will moderate the relationship between job search envy and job search effort; the relationship will be more strongly positive when market-based pressure is lower (i.e., plentiful employment opportunities).

Combined effects. We have argued that temporaland market-based pressures are both important considerations in how job search envy transmutes.
However, these pressures do not typically exist in
isolation, and should be considered interactively. For
example, might the moderating effects of market-based
pressure be particularly acute after more time has
passed or during more critical events? Or, might these
moderating effects pertain to different behavioral outcomes depending on search time or events? Our final
hypotheses therefore suggest potential combinations
of temporal- and market-based pressures most likely to
yield deviant or normative job search behaviors.

First, we have argued that threat-oriented frames become salient among envious job seekers as more time passes in a job search or during more critical search events, prompting deviant responses. Their situations appear less changeable or more critical, increasing felt pressure as seekers fear harsher repercussions for failure. Perceptions of scarce employment opportunities should make this threat even more salient. That is, diminished resources in the form of few available jobs, and greater time spent without achieving objectives or greater event criticality, make negative social comparative information most striking, heightening pressure to expediently catch up with competitors. For example, they might think: "I've searched for a long time and almost all the jobs are gone. I'll be the only jobless one in my graduating class!" They will exhibit greater threat-oriented responses in the form of deviant job search behaviors.

Hypothesis 3A. Job search envy, temporal-based pressure, and market-based pressure will have

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a three-way interaction in relation to resume fraud; job search envy will most strongly and positively relate to resume fraud with higher temporal- and market-based pressures.

By contrast, when little time has passed and opportunities are plentiful, the situation still seems changeable and relatively unthreatening, so envious job seekers will perceive sufficient time to claim these ample job opportunities and will especially believe that trying harder can redress their envy. Seeing the potential for success when employment opportunities seem plentiful, they should have challenge-oriented responses, such as: "Lots of jobs are still available. Others have had success, but I just started looking and will get one soon!" Similarly, plentiful opportunities during less critical search events should inspire increased effort. However, scarce opportunities after a short search time or during earlier, less critical events are likely to make effort seem to be an inadequate redress for envy. Or even if they perceive plentiful opportunities after more search time or during a later, more critical search event, they may fear they lack sufficient time or that their situation is too critical and urgent to simply respond with increased effort. However, during earlier or less critical events, with plentiful job opportunities, they will especially believe they can redress envy through greater effort.

Hypothesis 3B. Job search envy, temporal-based pressure, and market-based pressure will have a three-way interaction in relation to job search effort; job search envy will most strongly and positively relate to search effort with lower temporal- and market-based pressures.

We tested our predictions in two studies. In Study 1, we examined unemployed job seekers at various chronological search stages and tested Hypotheses 1A, 2A, and 3A related to deviant job search behavior. In Study 2 we tracked graduate students across two primary events during a two-year search process (internship and post-graduation job searches), and tested all hypotheses regarding deviant and normative search behaviors.

STUDY 1 METHOD

Sample and Procedure

We solicited unemployed job seekers from an Internet job board serving a southeastern region of the United States. When job seekers browsed this job board, an invitation to participate in a brief survey appeared with a link to a consent statement and the

survey. Participation was completely anonymous and we offered participants the chance at the end of the survey to send a separate email to a research assistant to enter a draw for a \$500 cash prize. A total of 369 individuals who checked a box indicating they were unemployed and currently seeking employment completed the survey. Sixty-one percent were female, and the average age was 41 years old. To ensure careful completion of the survey (i.e., to avoid patterned responses simply to register for the draw), we included an item approximately halfway through the survey that asked participants to respond with a "4" (on a fivepoint scale). We eliminated 17 participants for improperly completing this item. Seventeen additional respondents did not provide job search length or control variable data, yielding a sample size of 335.

Measures

Job search envy. We assessed job search envy with four items, three of which were adapted from Schaubroeck and Lam (2004), including: "It is so frustrating to see some people succeed so easily when they search for jobs," "The success of others in their job search makes me resent them," and "Lately, I feel inferior to others' success in their job search." Schaubroeck and Lam (2004) also included a fourth item, "Feelings of envy constantly torment me." However, we viewed this item as too global for our purposes, and thus developed a more context-specific item: "I am envious of others who seem to be more successful in their job search" (1 = strongly disagree; 7 = strongly agree; coefficient $\alpha = .84$).

Job search length. We asked participants, "If you are currently looking for a job, how long have you been engaged in that job search (in months)?"

Perceived employment opportunities. We used the three-item ease of movement sub-dimension from Griffeth et al.'s (2005) employment opportunity index. An example item is "Given my qualifications and experience, getting a new job would not be very hard at all." However, the initial coefficient α for this scale was only .58. We had included a reverse scored item as part of this three-item scale ("There simply aren't very many jobs for people like me in today's job market") despite loadings of less than .60 in two of Griffeth et al.'s (2005) scale development studies. When we excluded this item, the coefficient α improved to .70. Thus, we used the two-item scale (1 = $strongly\ disagree$; 7 = $strongly\ agree$).

Resume fraud. For current study purposes as well as additional ongoing research in this area, we developed resume fraud scales using Hinkin's (1998)

procedures and several additional samples (Henle, Dineen, & Duffy, 2014). For this study, we specifically focused on commissive resume fraud dimensions (i.e., embellishing or fabricating information on one's resume; Kim, 2011; Wood, Schmidtke, & Decker, 2007). Our operationalization follows traditional definitions of lying which the Oxford English Dictionary defines as "a false statement made with the intent to deceive." That is, the person knows the information is inaccurate, wants to mislead, and proactively chooses to do so. Because our model does not predict substantive differences across embellishment and fabrication subscales, and because these subscales exhibited a .70 correlation in the current sample, we combined them for our purposes (see also Christian & Ellis, 2011; Ferris, Brown, Lian, & Keeping, 2009). Thus, our resume fraud measure was preceded with the prompt, "Regarding your RESUME, during your current or most recent job search, rate the extent to which you have intentionally:" and comprised the following six items: "Made claims that were false," "invented degrees you do not have," "claimed work experiences that you do not actually have," "overstated information," "included things that were exaggerated," and "embellished information" (1 = not atall; 2 = to hardly any extent; 3 = to a little extent; 4 = toa moderate extent; 5 = to a considerable extent; 6 = toa very great extent; 7 = completely; coefficient $\alpha = .90$).

Control variables. We included six control variables. First, research has suggested that various counterproductive behaviors tend to co-occur within individuals (e.g., Gruys & Sackett, 2003). For example, those who have acted counterproductively in realms other than job seeking are prone to engaging in resume fraud (e.g., Callahan, 2004; see also Roberts, Harms, Caspi, & Moffitt, 2007). Thus, we controlled for prior incivility using the top four loaded items from Cortina, Magley, Williams, and Langhout (2001). The measure had a coefficient α of .83 in our sample. An example item is: "Put down or was condescending to others at work" (1 = never; 7 = always). Second, selfmonitoring should relate to resume fraud because it reflects a way of presenting oneself to others that creates a desirable yet artificial image. We controlled for self-monitoring using Snyder's (1987) measure. An example item is "I often try to put on a show to impress or entertain others" (1 = strongly disagree; 7 = strongly agree; coefficient $\alpha = .75$). Next, to account for other potential self-regulatory explanations specific to job searches and moral behavior in general, we controlled for job search self-efficacy and moral identity. We measured job search self-efficacy with six of the items used by Wanberg, Kanfer, and

Rotundo (1999). An example item, following the prompt, "How confident do you feel about being able to do the following things successfully?" was "Completing a good job application and resume" (1 = not atall confident; 7 = completely confident; coefficient $\alpha = .90$). We measured moral identity using five items from Aquino and Reed (2002), preceded by several characteristics (e.g., caring, fair, honest). Respondents were asked to visualize the kind of person who has these characteristics and to imagine how that person would think, feel, and act. Example items are: "It would make me feel good to be a person who has these characteristics," and "Having these characteristics is not really important to me (R)" (1 = strongly disagree; $7 = strongly \, agree; \, coefficient \, \alpha = .77). \, Fifth, \, we \, used$ the following item to control for the number of dependents respondents claimed: "Not including you, how many people would you say you financially support?" Finally, we included a dummy variable representing education level (0 = less than collegedegree; 1 = college degree or higher).

STUDY 1 RESULTS

Table 1 shows the means, standard deviations, and correlations for all Study 1 variables. We conducted moderated regression analyses, standardizing all predictors in the regression equation. Results of hypotheses tests appear in Table 2.1 Model 4 and Figure 3 show that Hypothesis 1A was supported by a significant interaction of job search envy and job search length on resume fraud ($\beta = .22, \Delta R^2 = .04, p < .01$). Specifically, job search envy and resume fraud had a positive relationship among those who had pursued jobs for a longer time (simple slope = .10, t = 3.75, p < .01) but the relationship was non-significant among those who had pursued jobs for a shorter time. Second, as shown in Model 4 of Table 2, Hypothesis 2A (interaction of job search envy and employment opportunities on resume fraud) was not supported ($\beta = .02$, n.s.). Finally, the test of Hypothesis 3A (three-way interaction of job search envy, job search length, and employment opportunities) was significant, but counter to our prediction ($\beta = .20, \Delta R^2 = .01; p < .05;$

¹ We screened for outliers using Bollen and Jackman's (1990) conservative criteria for the standardized dFits diagnostic statistic. This statistic offers a balance between identifying studentized residuals and influential cases. We also examined the raw data to ensure that the dependent variable for any identified outlying cases was at least four standard deviations from the mean. Using this combined procedure we eliminated one outlying case, for a final sample size of 334.

see Table 2, Model 6 and Figure 4). Specifically, for shorter searches (Figure 4A), job search envy and resume fraud had no significant relationship when employment opportunities were either plentiful or scarce (i.e., neither simple slope was significant). However, for longer searches (Figure 4B), job search envy was significantly related to resume fraud when employment opportunities were perceived as plentiful (simple slope = .09, t = 2.65, p < .01), whereas no relationship materialized when employment opportunities were perceived as scarce. This final model explained 27% of the variance in resume fraud.

DISCUSSION

In Study 1, we tested a model of the relationship between job search envy and deviant job search behavior that conceptualized underlying temporal-(clock-based) and market-based job search pressures. We found that the relationship becomes positive over the chronological course of a job search. Specifically, as clock-time passes, we theorized that situation changeability perceptions decrease and search pressure concomitantly increases.² In turn, deviant approaches to redressing envy become more probable.

Although we failed to find that employment opportunities moderated the relationship between job search envy and resume fraud, we did find a three-way interaction effect, such that this moderation depended on how much search time had passed. However, this finding contrasted with our prediction; when search time was greater, plentiful employment opportunities further augmented the envy-resume fraud relationship rather than mitigating it.

We had posited that scarcer employment opportunities would place greater pressure on job seekers, and thus increase threat-oriented responses after more search time passed. However, an alternative possibility is that even when opportunities are abundant, resume fraud could occur after more time because plentiful opportunities imply that seekers should be succeeding. Already envious of how others are faring, ample perceived opportunities might actually heighten perceived threat, especially as time passes. Abundant opportunities may be yet another "slap in the face" as job seekers fail to keep pace with others, leaving them without an "excuse" for their failed job search. As such, use of deviant behaviors to catch up and save face may actually occur.

More generally, job search envy resulting from failure to succeed could induce dissonance that job seekers might try to rectify by engaging in counterfactual reasoning. That is, upward social comparisons (e.g., falling behind others) and resulting job search envy might generate counterfactual thoughts (e.g., "if only I had done things differently" or "I have no choice but to do things differently") to rectify the dissonance (Coricelli & Rustichini, 2010). Although counterfactual thoughts can be functional, strong counterfactual thoughts have been linked to cycles of helplessness, self-pity, and unproductive thinking focused on failures rather than solutions (Martin & Tesser, 1989; Wood, Saltzberg, Neale, Stone, & Rachmiel, 1990). In our context, then, envious job seekers might be more susceptible to resume fraud to amend their current failures when employment opportunities abound. To further examine these dynamics and introduce a normative behavioral response, we conducted a second study.

STUDY 2 OVERVIEW AND METHOD

In Study 1, we asked participants to indicate their chronological, clock-based standing in a job search process as part of a cross-sectional survey.

² We did not originally measure intervening mechanisms related to job search pressure, situation changeability (Study 1), or search criticality (Study 2). However, a reviewer comment motivated us to survey 83 undergraduate students using the following prompts: (1) During different types of employment searches or stages of employment searches, you might experience various levels of pressure. For example, you might feel pressure from parents, friends, or because of a financial situation. Of these search types or stages of search, please choose which you think you would experience more pressure during. (2) During different stages of employment searches, you might feel like your situation is more or less "immutable" or changeable. For example, you could still adopt different strategies or change your approach. Of these stages of search, please choose which you think you would find more changeable. (3) Employment searches can vary in terms of how critical or important the type of search is. Please choose which of these search types you think would be more critical. Of the students who chose one of the two options (earlier or later; internship or job search; Ns between 71-78 depending on the item), 61% percent indicated greater pressure later rather than earlier in the search; 69% indicated greater pressure for a job search than for an internship search; 70% indicated greater changeability earlier in the search; and 77% indicated greater criticality for a job search than for an internship search. Using one sample binomial tests, all p values were < .01 except for p < .07 for the item reflecting pressure over time.

TABLE 1
Means, Standard Deviations, and Correlations among Study 1 Variables

					,						
Variable	Mean	SD	1	2	3	4	5	6	7	8	9
1. Self-monitoring	3.56	.74									
2. Prior incivility	1.55	.73	.04								
3. Job search self-efficacy	5.32	1.20	.06	17**							
4. Moral identity	6.13	.95	07	23**	.06						
5. Number of dependents	1.50	1.41	03	05	.08	.03					
6. Education level ^a	.52	.50	.16**	.07	.03	.12*	06				
7. Job search envy	3.81	1.51	.04	.23**	22**	12*	07	.01			
8. Perceived employment opportunities	3.15	1.48	.02	02	.18**	00	.01	07	12*		
9. Job search length (months)	9.33	9.56	.01	.06	07	11*	.05	04	.13*	11	
10. Resume fraud	1.17	.40	.22**	.26**	16**	16*	08	.10	.18**	.01	.25**

Note: n = 334.

In Study 2, we tracked a cohort of graduate students who essentially shared the same job search process over a two-year period comprising two sequential search events: an internship search and post-graduation job search. We surveyed participants at five different times, and incorporated both

normative and deviant responses to job search envy (e.g., Schaubroeck & Lam, 2004; Tai et al., 2012). Thus, Study 2 constructively replicates (Lykken, 1968) and extends Study 1 by enabling us to: (1) track job seekers across an extended dualevent search process where we operationalize

TABLE 2
Study 1 Regression Results with Resume Fraud as the Dependent Variable^a

			1			
Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Control Variables						
Self-monitoring	.20**	.19**	.19**	.21**	.21**	.21**
Prior incivility	.20**	.19**	.18**	.16**	.15**	.14**
Job search self-efficacy	13*	11*	12*	11*	11*	11*
Moral identity	10	10	07	07	07	06
Number of dependents	05	04	06	05	06	05
Education level ^b	.07	.07	.08	.06	.05	.06
Independent Variable						
Job search envy		.09	.07	.07	.06	.08
Moderators						
Job search length			.22**	.15**	.14**	.09
Employment opportunities			.07	.03	.02	.01
Hypothesized Two-Way Interaction Terms						
Envy x search length				.22**	.14*	.06
Envy x employment opportunities				.02	.01	01
Additional Two-Way Interaction Term						
Search length x employment opportunities					.15*	.07
Three-Way Interaction Term						
Envy x search length x employment opportunities						.20*
R^2	.14	.15	.20	.24	.26	.27
ΔR^2	.14**	.01	.05**	.04**	.02*	.01*

Note: n = 334.

 $^{^{}a}$ Coded as 0 = less than college degree; 1 = college degree or higher.

^{*} p < .05

^{**} p < .01 (two-tailed)

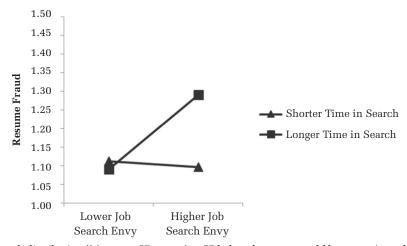
^a Standardized regression coefficients shown.

 $^{^{\}rm b}$ Coded as $0 = {\rm less}$ than college degree; $1 = {\rm college}$ degree or higher.

^{*} p < .05

^{**}p < .01 (two-tailed)

FIGURE 3
Interaction of Job Search Envy and Job Search Length on Resume Fraud (Study 1)^a



^a Because of the search length distribution (M = 9.33; SD = 9.56), 1 SD below the mean would be a negative value, an impossibility in these data. Thus, "longer time in search" is plotted conventionally at +1 SD from the mean, or approximately 19 months, whereas shorter time is plotted at -.5 SD from the mean, or approximately 4.5 months (see Dineen, Noe, Shaw, Duffy, & Wiethoff, 2007 for an example of plotting at .5 rather than 1 SD from the mean). Higher and lower job search envy are conventional +/-1 SD values.

temporal job search pressure as event-based rather than clock-based; (2) retest the hypotheses and results found in Study 1, including the unexpected employment opportunity result; and (3) test three additional hypotheses (1B, 2B, and 3B) related to a normative response to job search envy: job search effort (operationalized as the number of employment applications submitted).

Sample and Procedure

The sample originally comprised 77 students enrolled in a two-year master's of human resources program at a large American university. Forty-nine completed study measures on at least three surveys at appointed times and indicated seeking full-time jobs by graduation. Using the available data from those not included, non-response bias checks revealed no significant differences on any study variables between the eligible sample of 49 and those omitted. Seventy-six percent of participants were female, and the average age was 25 years old. Students in the program commonly seek internships after their first year as part of an overall process of securing post-graduation employment; they seek full-time employment after their second year. Accordingly, we cast their first-year internship search as an initial search event, and cast the second-year search for full-time employment as a subsequent event, with a presumed increase in

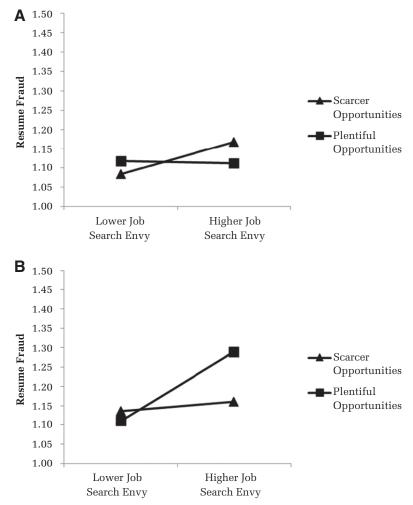
criticality across these two events.³ A small number of respondents indicated accepting internships or jobs prior to respective survey periods. Although their responses were therefore retrospective, we retained them in the sample.⁴ At the beginning of each of the five surveys, participants answered four identifier questions that enabled anonymous yet matched responses (e.g., "What is the first letter of your mother's or primary caregiver's first name?"). After participants submitted each survey, they could register separately for a \$10 payment per

³ As stated in Note 2, our student survey found that 77% of respondents indicated greater criticality for a job search than for an internship search.

⁴ Specifically, during the internship search, one respondent indicated having accepted an internship prior to the first survey, which included the job search envy measure. During the post-graduation job search, seven respondents indicated having accepted jobs prior to the fourth survey where we again assessed job search envy. Also, 61% of internship seekers and 39% of job seekers attained internships or jobs sometime during the study. We retained these cases and all significant results remained when we added a dummy variable reflecting either of these two groups (0 = did not attain an internship/job during thestudy period; 1 = attained an internship/job either before or during the study period). The same was true when we included a dummy variable in job search event tests reflecting whether participants had attained internships during that prior event.

FIGURE 4

Interaction of Job Search Envy, Job Search Length, and Perceived Employment Opportunities on Resume Fraud (Study 1)^a. A: Shorter Time in Search. B: Longer Time in Search.



^a Because of the search length distribution (M = 9.33; SD = 9.56), 1 SD below the mean would be a negative value, an impossibility in these data. Thus, "longer time in search" is plotted conventionally at +1 SD from the mean, or approximately 19 months, whereas shorter time is plotted at -.5 SD from the mean, or approximately 4.5 months (see Dineen et al., 2007 for an example of plotting at .5 rather than 1 SD from the mean). Higher and lower job search envy and plentiful and scarcer opportunities are conventional +/-1 SD values.

survey and a \$20 bonus for completing at least four surveys. Analysis-wise samples were reduced to between 35–45 respondents because of missing job search envy or dependent variable data.

Measures

Figure 5 provides an overview of the study timeline and illustrates when we gathered the various measures described below.

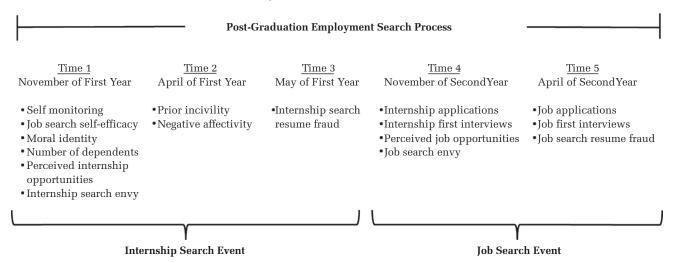
Job search envy. Two items from Study 1 were included at Times 1 and 4 and used to assess envy during the internship and post-graduation job search

events: "It is so frustrating to see some people succeed so easily when they search for jobs," and "I am envious of others who seem to be more successful in their job search" (coefficient $\alpha s = .85$ and .70 at Times 1 and 4, respectively).

Employment opportunities. This was measured at Times 1 and 4 using the Griffeth et al. (2005) two-item scale from Study 1. Coefficient α s were .73 and .89, respectively.

Resume fraud. As in Study 1, this was measured using the six-item commissive resume fraud scale. For the internship search we preceded the items with, "during your *current or most recent* job/

FIGURE 5 Study 2 Timeline and Measures



internship search..." During the post-graduation job search we preceded the items with, "during your *current* or *most recent* post-graduation job search..." Coefficient αs from Times 3 and 5 were both .90.

Internship/job search effort. We operationalized internship/job search effort as the number of internship applications (after the first year) or job applications (after the second year) submitted. For internship applications, we asked participants at Time 4, "During your search for an internship, how many internships did you apply for?" For job applications, we asked at Time 5, "If you did a post-graduation job search, how many jobs have you applied for?"

Control variables. We again controlled for incivility, self-monitoring, job search self-efficacy, moral identity, and number of financial dependents (all measures were the same as in Study 1 except for using the full seven-item Cortina et al. [2001] incivility scale in this study; respective coefficient α s for the multi-item scales = .83, .77, .84, and .75). We also controlled for negative affectivity using the negative markers from the Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988; coefficient $\alpha = .78$), and included a dummy variable reflecting whether a person provided sufficient data to be included in analyses for both or only one search event. Finally, when examining job search event relationships, we controlled for relevant internship event activity (e.g., internship search resume fraud when examining job search resume fraud as the dependent variable).

STUDY 2 RESULTS

Table 3 shows the means, standard deviations, and correlations for the Study 2 variables.⁵

One objective of Study 2 was to constructively replicate the Study 1 finding of a stronger positive relationship between job search envy and resume fraud as more search time passed (Hypothesis 1A). We also desired to test whether Study 2 would replicate our finding regarding the three-way interaction of job search envy, job search length, and perceived employment opportunities on resume fraud (Hypothesis 3A). Finally, we retested Hypothesis 2A as well as the job search effort hypotheses (1B, 2B, and 3B).

Resume Fraud Results

First, regarding Hypothesis 1A (stronger job search envy-resume fraud relationship under higher temporal-based pressure), Table 4 shows that job search envy had a main effect during the post-graduation job search event ($\beta = .25$, $\Delta R^2 = .05$, p < .05) but not during the internship search event ($\beta = .03$, $\Delta R^2 = .00$, n.s.). To formally test for an

⁵ We found and removed one outlying case involving internship applications and post-graduation job applications using the same criteria as in Study 1. Mean replacement for control variables yielded one additional case. We used one-tailed tests for the resume fraud hypotheses because Study 1 indicated directionality (e.g., Aime, Humphrey, DeRue, & Paul, 2014; Lopez-Kidwell et al., 2013).

Means, Standard Deviations, and Correlations among Study 2 Variables TABLE 3

Variable	Mean	SD	1	2	3	4	5	9	7	8	6	10	11	12	13	14
1. Self-monitoring	4.01	.72														
2. Prior incivility	1.91	.73	.25													
3. Job search self-efficacy	4.81	.95	08	30*												
4. Moral identity	5.98	.78	25	27	.23											
5. Number of dependents	.32	.70	00.	.01	12	.05										
6. Negative affectivity	2.36	.54	.16	.43**	29*	18	.33*									
7. Participation ^a	.80	.41	.05	.05	10	14	01	90.								
8. Job search envy ^b	4.50	1.71	.26	.14	21	90.	90.–	.11	11							
9. Job search envy ^c	3.71	1.53	90.	02	26	.01	.11	.13	.29	.29						
10. Employment opportunities ^b	3.46	1.35	.16	.08	.02	21	14	07	.05	.01	20					
11. Employment opportunities ^c	4.39	1.63	.28	22	.42**	07	28	24	25	03	40**	.31				
12. Resume fraud ^b	1.73	.84	.36**	.26*	37**	44**	90.	.47**	.24	.14	.08	.25	.13			
13. Resume fraud $^{\rm c}$	1.86	.92	.31*	.12	20	57**	.04	.22	.13	01	.24	02		.65		
14. Internship applications	16.30	11.88	.12	01	15	23	09	.30	.16	.29	.36*	80.	02	.29	*68.	
15. Job applications	21.61	27.87	10	.21	22	21	.46**	.27	.07	.04	.30	.20		.20	.22	.25

Note: n = between 34 and 48. Correlations involving resume fraud and applications are based on final analysis-wise cases for each event.

^a Coded as 1 = participated in the study during both events; 0 = participated during only one event.

^b Internship search event.

^c Post-graduation job search event.

* p < .05** p < .05

TABLE 4
Study 2 Regression Results with Resume Fraud as the Dependent Variable^a

	Inte	Internship Search Event $(N = 45)^{b}$				Job Search Event $(N = 40)^{b}$					
Variables	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4			
Control Variables											
Self-monitoring	.27*	.27*	.25*	.25*	.04	.02	09	05			
Prior incivility	16	16	16	16	08	03	.04	.12			
Job search self-efficacy	11	10	12	11	.04	.10	03	06			
Moral identity	34**	34**	32*	32*	31*	32*	32**	30**			
Number of dependents	.03	.04	.04	.04	.03	.02	.09	.20*			
Negative affectivity	.42**	.41**	.41**	.41**	08	14	08	10			
Participation ^c	.22*	.22*	.22*	.21	.03	05	01	08			
Internship resume fraud					.58**	.61**	.48**	.35*			
Independent Variable											
Job search envy		.03	.03	.03		.25*	.37**	.45**			
Moderator											
Employment opportunities			.12	.12			.41**	.51**			
Interaction Term											
Envy x employment opportunities				.02				.32**			
R^2	.48	.48	.49	.49	.56	.61	.69	.76			
ΔR^2	.48**	.00	.01	.00	.56**	.05*	.08**	.07**			

^a Standardized regression coefficients shown.

interactive effect across the events, we compared parameter estimates using the "seemingly unrelated estimation" (suest) procedure in STATA 12.0 (e.g., Gardner, 2012; Rhee & Fiss, 2014; StataCorp, 2011; Wade, O'Reilly, & Pollock, 2006). Providing replicated support for Hypothesis 1A, the suest test indicated that the envy–resume fraud relationship was significantly stronger during the job search than it was during the internship search event (p < .05).

Second, we predicted a stronger envy-resume fraud relationship when employment opportunities were perceived to be scarcer (Hypothesis 2A). We also predicted a three-way interaction effect: employment opportunities would further qualify the stronger job search envy—resume fraud relationship at the more critical job search event, with the strongest relationship occurring when opportunities were scarcer (Hypothesis 3A). Study 1 failed to show that job search envy and employment opportunities interacted in relation to resume fraud. However, in Study 1, job search envy was related to resume fraud when more search time had passed and plentiful employment opportunities were perceived.

Study 2 results indicated that job search envy and employment opportunities had a non-significant interaction in relation to resume fraud during the internship search event ($\beta = .02$, $\Delta R^2 = .00$, n.s.; see Table 4), and a significant interaction during the job search event ($\beta = .32$, $\Delta R^2 = .07$, p < .01). This latter interaction was counter to our prediction though: job search envy more strongly related to resume fraud when employment opportunities were plentiful. Thus, Hypothesis 2A was not supported. Providing replicated evidence for the counterintuitive Hypothesis 3A finding, however, a significant suest test (p < .05) indicated significant differences in the two interaction effects. As Figure 6 shows, during the job search event, envy was positively related with

^b Specific sample sizes were reduced because of missing job search envy or resume fraud data.

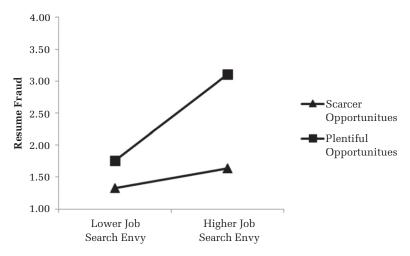
^c Coded as 1 = participated in the study during both events; 0 = participated during only one event.

^{*} p < .05

^{**}p < .01 (one-tailed)

⁶ Suest allows investigators to statistically compare coefficient estimates. It tests a null hypothesis that the coefficient in one model is not significantly different from the coefficient in another model. Importantly, it allows correlated errors by merging estimation results into a single, simultaneous covariance matrix (see Rhee & Fiss, 2014), and is appropriate when the estimates are obtained on overlapping data as in our case. That is, we had overlapping samples between models either when we compared coefficients within the same search event (i.e., envy–search effort and envy–resume fraud during the internship event) or when we compared coefficients across two events (i.e., envy–internship search resume fraud and envy–post-graduation job search resume fraud).

FIGURE 6
Interaction of Job Search Envy and Perceived Employment Opportunities on Job Search Event Resume Fraud (Study 2)



resume fraud when employment opportunities were perceived as plentiful (simple slope = .68; t = 4.43, p < .01) and non-significantly related when opportunities were perceived as scarce, similar to the Study 1 effect illustrated in Figure 4B.

Search Effort Results

Turning to search effort tests (see Table 5), we first predicted a stronger job search envy—effort relationship under lower temporal-based pressure (i.e., during less critical search events). Job search envy did not relate to job search effort (β = .20, n.s.), but it was marginally related to internship search effort (β = 29; p < .09), with a more than double effect size during the internship search than during the job search (ΔR^2 = .07 versus .03). While these results are consistent with our general theorized pattern, the formal suest test comparing the strength of the envy—effort relationship during internship and job search events was non-significant. Thus, Hypothesis 1B is not supported.

Second, we predicted a stronger job search envyeffort relationship when perceived employment opportunities were plentiful (Hypothesis 2B). We also predicted a three-way interaction, such that the envyeffort relationship would be stronger during the internship search event, and that employment opportunities would further qualify the relationship such that it would be strongest when opportunities were plentiful (Hypothesis 3B). As Table 5 shows and Figure 7 illustrates, during the internship search event, employment opportunities moderated the job

search envy–effort relationship ($\beta=.42, \Delta R^2=.14, p<.05$). When employment opportunities were plentiful, the envy–effort relationship was positive and significant (simple slope = 7.84, t=3.27, p<.01). With scarcer employment opportunities, the relationship was non-significant. Lack of a corresponding interaction of job search envy and employment opportunities on effort during the postgraduation job search event ($\beta=-.10, \Delta R^2=.01,$ n.s.) only partially supported Hypothesis 2B. However, a significant suest test (p<.05) fully supported Hypothesis 3B by showing that envy and employment opportunities had a stronger interaction in relation to effort during the internship event compared to the job search event.

Notably, we again explained considerable variance in the dependent variables in Study 2. During the internship search, the control variables, predictors, and interactions explained 49% of the variance in resume fraud and 50% of the variance in internship applications. During the post-graduation job search event, the control variables, predictors, and interactions explained 76% of the variance in resume fraud and 49% of the variance in job applications.

Supplementary Analyses

To further enrich our understanding of how job search envy transmutes, we complemented our formally hypothesized results with several supplementary tests. First, in Study 2, during the internship search, results showed that job search envy triggers

TABLE 5
Study 2 Regression Results with Search Effort as the Dependent Variable^a

	Inte	rnship Searc	h Event (N =	37) ^b	Job Search Event $(N=35)^{\rm b}$				
Variables	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4	
Control Variables									
Self-monitoring	.07	01	.00	06	20	19	34	34	
Prior incivility	62*	65*	66	50*	.09	.10	.02	.01	
Job search self-efficacy	15	10	10	00	.05	.08	10	08	
Moral identity	33	39*	39*	29	15	19	19	20	
Number of dependents	15	12	11	15	.49**	.47**	.49**	.47*	
Negative affectivity	.58*	.57*	.57*	.52*	.09	.08	.20	.20	
Participation ^c	02	02	02	.01	.07	.01	.07	.09	
Internship effort					.28	.21	.12	.15	
Independent Variable									
Job search envy		.29	.29	.27		.20	.34	.30	
Moderator									
Employment opportunities			03	08			.41	.37	
Interaction Term									
Envy x employment opportunities				.42*				10	
R^2	.29	.36	.36	.50	.38	.41	.49	.49	
ΔR^2	.29	.07	.00	.14*	.38	.03	.07	.01	

^a Standardized regression coefficients shown.

at least marginal search effort ($\beta = .29$; p < .09; Table 5), whereas no evidence indicates that it transmutes as resume fraud ($\beta = .03$; n.s.; Table 4). A suest comparison shows that these respective relationships differ at a marginally significant level (p < .08). This is important because, although we did not find a statistical difference in the job search envy-search effort relationship across events, it indicates that during the internship search, envy's effects on effort are stronger than its effects on resume fraud. Because temporal search pressure is likely less during internship searches, this finding implies decreased probability that job seekers will risk engaging in resume fraud. Instead, during the internship search, job search envy appears to elicit a challengeorientation, resulting in effort. Similarly, during the internship search, the interaction of job search envy and employment opportunities on effort ($\beta = .42$; Table 5) is significantly stronger than the corresponding interaction on resume fraud ($\beta = .02$; Table 4; suest: p < .01).

Second, both studies show that employment opportunities interact with temporality (search length or event) in relation to resume fraud, and Study 2 shows the interaction in relation to job search effort. Specifically, Table 2 shows the interactive effect of employment opportunities and

search length on resume fraud in Study 1 ($\beta = .15$, $\Delta R^2 = .02$, p < .05; Model 5), and the interaction plot (not shown in the interest of space) indicates that as more search time passes, employment opportunities positively relate to resume fraud. Similarly, in Study 2, employment opportunities significantly relate to resume fraud during the post-graduation job search ($\beta = .41$), but not during the internship search ($\beta = .12$), and these relationships significantly differ (suest: p < .05). The employment opportunity relationship with effort during the internship ($\beta = -.03$) and job search event (β = .41) also significantly differ (suest: p < .05). This suggests that job seekers simultaneously increase their effort and resume fraud levels when employment opportunities are plentiful during the more critical job search event, but that employment opportunities are not associated with either outcome during the internship event.

Finally, because we considered both deviant and normative job search behaviors, we examined in Study 2 whether these behaviors interactively relate to a key job search outcome: number of first interviews attained (Levashina & Campion, 2007; Sun et al., 2013). For example, impression management has been shown to relate to job search outcomes (e.g., Higgins & Judge, 2004; Stevens & Kristof, 1995).

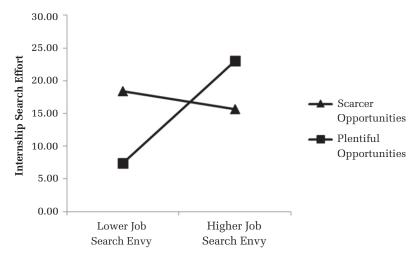
^b Specific sample sizes were reduced because of missing job search envy or search effort data.

^c Coded as 1 = participated in the study during both events; 0 = participated during only one event.

^{*} p < .05

^{**}p < .01 (two-tailed)

FIGURE 7
Interaction of Job Search Envy and Perceived Employment Opportunities on Internship Search Effort (Study 2)



If job seekers use impression management in the form of resume fraud, and submit more fraudulent internship or job applications, they might enjoy the most beneficial outcomes.

To assess internship interviews, at Time 4 we had asked, "During your search for an internship, how many first interviews were you invited to?" For postgraduation interviews, at Time 5 we had asked, "If you did a post-graduation job search, how many first interviews have you been invited to?" We included employment applications, resume fraud, and their interaction in regressions predicting number of first interviews during the internship and postgraduation job search events. During the internship search, the interaction was significant (β = .46, $\Delta R^2 = .13$, p < .01). Applications positively and significantly related to first interviews when resume fraud was higher, and positively but nonsignificantly related to first interviews when it was lower. However, during the post-graduation job search, controlling for internship first interviews, only the main effect of job applications was significant in relation to job search first interviews $(\beta = .46, p < .01)$. Neither the main effect of resume fraud nor the interaction of resume fraud and applications significantly related to first interviews during this event. Although preliminary, these findings suggest that deviant and normative job search behaviors might "matter" in predicting first interview invitations. Yet, in accordance with our temporal perspective, the relative interplay of resume fraud and effort in relation to interviews differs across search events.

GENERAL DISCUSSION

Job search envy is a real and oftentimes distressing emotion resulting from social comparative information encountered by job seekers (e.g., Martin, 2013). Our data indicate that job search envy is both considerable (means of between 3.71 and 4.50 on a seven-point scale) and dispersed (standard deviations above 1.50), which corroborates recent mainstream accounts and accentuates the importance of studying how job seekers respond to the envy they inevitably experience. At the same time, organizational recruiters and researchers are deeply concerned about job search effort and the pressures that might lead job seekers to submit fraudulent resumes (e.g., Singal, 2015; Wanberg, Zuh, et al., 2012). We amalgamate the envy, job search, and social comparison literatures to develop a theory of how job search envy behaviorally transmutes based on varied pressures job seekers face. We provide the first evidence we know of that job search envy evokes deviant or normative job search behaviors depending on these pressures.

Our conclusions are as follows. First, regarding deviant behavior, results from both studies indicate that job search envy elicits greater threat-orientation and transmutes as resume fraud when temporal search pressures are higher. Study 1 specifically shows the effect in terms of clock-based temporal pressure that builds as job seekers spend more time in their searches. It also shows that, regardless of envy levels, resume fraud is more extensive as time passes in job searches as indicated by the positive

main effect of job search length on resume fraud (see Table 2, Model 3). Study 2 corroborates and extends the clock-based finding by showing that the importance of events plays a strong role: highly critical post-graduation job searches are more likely than less critical internship searches to encourage resume fraud in response to envy.

Second, employment opportunity perceptions appear to determine how acutely job search envy generates deviant or normative job search behaviors across time or events. However, the moderating effects of employment opportunities on deviant behavior occurred only after more search time had passed or during the more critical job search rather than internship search event, and were contrary to our expectations in both studies. For example, Study 2 indicated that job search envy and employment opportunities significantly interacted in relation to resume fraud during the post-graduation job search event, but not during the internship event. During the job search event, job search envy more strongly related to resume fraud when employment opportunities were plentiful rather than scarce. This effect was non-significant during the internship search event, and a suest test indicated that these two regression results differed significantly, indicating an overall three-way interaction of job search envy, job search event, and employment opportunities. We observed a similar threeway interaction effect involving job search envy, search length, and employment opportunities in Study 1. Specifically, in both studies, there was greater proclivity to respond to job search envy with resume fraud when temporal-based pressure was higher; i.e., when more search time had passed (Study 1) or during a more critical search event (Study 2); and when market-based pressure was lower; i.e., employment opportunities were greater (see similar Figure 4B and Figure 6 plots).

To explain these results, we have discussed that seekers might reduce dissonance through counterfactual reasoning. In addition, when employment opportunities are plentiful, they might believe that falsifying or enhancing their resumes will not harm or disadvantage anyone because opportunities are abundant (e.g., Detert, Treviño, & Sweitzer, 2008).

Second, scarce job opportunities may cause job seekers to perceive they can do little or nothing to redress their envy. They might even make external, uncontrollable attributions toward envied others, rationalizing that they "just got lucky" (e.g., Weiner, 1985). However, when plentiful opportunities are available but job search success is still lacking, unsuccessful seekers might feel threatened but still believe they can control their situations through expedient deviant means.

Regarding normative transmutations of job search envy, Study 2 provides evidence for our prediction that lower temporal-based search pressure motivates envious job seekers to try harder rather than commit resume fraud. The relationship between job search envy and effort was marginally significant during the internship search (p < .09), and a supplementary analysis showed that this relationship was marginally stronger than the corresponding envyresume fraud relationship during the internship search (suest: p < .08). Moreover, job search envy strongly and positively related to search effort, but not resume fraud, during the internship search when employment opportunities were plentiful. Thus, while the combined results do not fully support the hypothesis that job search envy more strongly relates to effort during the less-critical internship search compared to the job search, they do provide initial evidence consistent with our theorized model that lower relative situational importance (Festinger, 1954; Lazarus, 1991) may elicit challenge-oriented rather than threat-oriented responses to job search envy.

Taken together, our results advance social comparison theorizing by showing that social comparative processes generate varying outcomes both across and within chronological time or events (Goodman & Haisley, 2007). For example, job search envy is more strongly related to resume fraud after more time has passed or at more critical search junctures. Its transmutation also differs within events; for example, during the internship search it is marginally related to effort but not to resume fraud. Although job seekers can draw unfavorable social comparisons and experience job search envy at any point during a job search, search pressures predispose them to experience envy through challengeor threat-oriented frames, and behave accordingly. We also contribute by considering situation changeability and event criticality (Festinger, 1954; Lazarus, 1991; Weiss & Cropanzano, 1996) as keys to understanding when search pressures occur and how they affect envy transmutations. Acute

⁷ Table 3 indicates that employment opportunity base rates were higher during the job search event than during the internship search event. A career placement officer at the school explained that there tend to be more postgraduation recruiters and opportunities than internship recruiters and opportunities.

temporal pressure constrains views regarding changeability and better possible outcomes going forward. Thus, when a social comparison occurs and yields job search envy, its transmutation may depend on how critical the comparison is and how changeable the situation seems. If better outcomes seem likely, increased effort may seem reasonable. If better outcomes seem doubtful, resume fraud may seem the best way to redress envy. By considering challenge- and threat-oriented envy lenses, and questioning how different behavioral responses are prompted across time, events, and employment opportunities, we develop a more complete picture of job search envy as it affects deviant and normative behaviors.

Our temporal theoretical perspective complements the broader literature's growing recognition of time-based phenomena (Shipp & Cole, 2015) as well as recent work seeking to understand how job seeker perceptions translate to behaviors differently over time (Lopez-Kidwell et al., 2013; Wanberg et al., 2005). Yet we fundamentally expand that domain. For example, meta-analyses have found job search behavior to be only modestly related to employment status (e.g., $r_c = .21$; Kanfer et al., 2001), perhaps because the focus has been on normative job search behaviors (e.g., Lopez-Kidwell et al., 2013) rather than on disingenuous means of attaining job search success, or on static rather than temporal job search phenomena. Previous literature has also largely assumed equivalent job search criticality levels without considering that searches might differ in relative importance. We argue that job search criticality can vary and affect emotional reactions to unfavorable social comparisons.

Study Strengths and Limitations

Our dual-study approach has several strengths. First, we used diverse samples comprising job losers and new entrants—two of Boswell et al.'s (2012) three job seeker types—and included job seekers of markedly different ages (means of 41 in Study 1 and 25 in Study 2). Second, for resume fraud, we found a relatively consistent pattern using different operationalizations of temporal job search pressure (i.e., total time spent in job search in Study 1; increasingly critical search events in Study 2). This compliments other job search studies that have adopted temporal approaches (e.g., Lopez-Kidwell et al., 2013; Wanberg, Zuh, et al., 2012) by considering both clock-and event-based temporality (Ancona et al., 2001; Shipp & Cole, 2015).

Third, although we acknowledge that resume fraud and search effort may have other relevant antecedents, our model explained 27% of the variance in resume fraud in Study 1. In Study 2, explained variance increased to between 49 and 76% for resume fraud and to between 49 and 50% for effort in the form of internship/job applications. We attained the larger percentages in Study 2 using measures captured between one and 18 months prior to assessing the dependent variables. Job search envy effects may have been generally stronger because participants were in a cohort that may have had stronger social comparison dynamics (Goodman & Haisley, 2007).

Finally, our two studies yield similar resume fraud results although Study 1 is a cross-sectional study of unemployed job seekers searching at different times and with less well-defined referent groups, while Study 2 is a dual-event study of student job seekers in a well-defined cohort undergoing a simultaneous search process. This reduces concerns that study findings occurred by chance. Thus, although we did not technically replicate results by using the same variable operationalizations across studies (e.g., we provide only one set of results pertaining to clockbased time), we view our findings as providing constructively replicated (Lykken, 1968) and generalized support for a broader theoretical model of temporality related to social comparative emotions and deviant and normative job search behavior. Future research should continue to incorporate varied search behaviors as well as varied forms of search temporality to determine their relative interplay as individuals search for jobs, draw social comparisons, and experience emotions such as job search envy.

As with all studies, ours include some limitations. For example, the self-report resume fraud measure increases the possibility of underreported resume fraud, and we observed nontrivial frequency differences across our samples. Specifically, in Study 1 (unemployed job seekers), 71% of the sample claimed to have engaged in no resume fraud, meaning 29% reported engaging in some level of fraud. However, in Study 2, 77% of internship seekers and 86% of job seekers reported some level of fraud. Recent meta-analytic evidence regarding selfreported counterproductive work behavior (CWB) scales concluded that "the results...support their use in most CWB research as a viable alternative to other-reports" (Berry, Carpenter, & Barratt, 2012: 613). Our two studies maintained participant anonymity, controlled for self-monitoring, and yielded

relatively similar results despite the above-noted frequency differences. However, future work should strive to balance objective means of assessing resume fraud with self-report methods while recognizing that objective approaches might assess only detected fraud and fail to assess undetected fraud. Second. our Study 2 sample was smaller than originally planned; several students indicated that they were not seeking full-time employment after graduation (e.g., they planned to attend graduate school instead), or some participants failed to complete all five surveys across the two-year study time span. The smaller Study 2 sample size is less concerning for resume fraud effects because they could be compared with effects found in the larger Study 1 sample, but our Study 2 search effort results should be subjected to further scrutiny to gauge their robustness. Third, we did not specifically measure proposed intervening processes underlying our predictions, such as situation changeability and event criticality, and only did so in a post-hoc fashion at a reviewer's prompting (see Note 2). Thus, future studies should test the theorized mediating processes as well as other potential intervening effects. Finally, we chose a more general conceptual replication approach whereby we operationalized temporal pressure differently across studies, and recognize the inherent tradeoff with replication precision. Also, we operationalized clock-based time in Study 1 as the number of months spent searching, whereas we might have considered a subjective time measure (e.g., some job seekers might consider "four months" to be a "shorter time" while others might perceive it to be a longer time). Despite these limitations, we believe our results provide important information for practitioners and contribute to ongoing research in the envy, job search, and social comparison research spaces, as we describe next.

Practical Implications and Future Research Directions

We anticipate that professionals might glean valuable information from our studies. For example, they can benefit from understanding that job search envy prompts deviant job search behavior as search length increases or seekers encounter more critical search events, and from knowing that envy can transmute as deviant behavior even when job markets seem favorable. The information might help recruiters be more aware of situations that make job seekers feel envious, such as when they are in close cohorts of other seekers or exposed to social media

providing extensive comparative information. Recruiters should also recognize the importance of job seekers' temporal situations and job market pressures at various search junctures. Supplemental results examining the relative effectiveness of resume fraud and effort in generating interview invitations indicate that resume fraud "works" more during internship compared to job searches. Correspondingly, this raises the possibility that recruiters may need to take greater care when screening resumes submitted for internship positions.

Job placement offices, career counselors, and others who coach job seekers will find our research useful for channeling more normative responses to envy. They might encourage or train clients to acknowledge envy, reaffirm self-worth, and identify how self-worth can be directed toward greater job search effort rather than succumbing to resume fraud temptations. Results also provide initial evidence that individual differences such as moral identity relate to resume fraud across job search processes, while other characteristics such as negative affectivity matter only at certain points (see Table 4). For example, in Study 2, while job search envy more strongly relates to resume fraud during the postgraduation job search compared with internship search per our theoretical framework, the converse appears to be true of negative affectivity (Table 4, Model 2: $\beta_{internship search} = .41$; $\beta_{job search} = -.14$; suest: p < .01). Although not hypothesized, this finding is consistent with the concept of situational strength (Mischel, 1977): individual differences tend to exert greater effects in less-constrained or prescribed situations, which might occur at earlier or less-critical search junctures. Also, both studies show that job search self-efficacy is negatively correlated with resume fraud (r = -.16 for Study 1; r =-.37 for Study 2 internship search event). Although we focused on social-contextual aspects of job search, this raises potentially important questions about whether individual differences universally predict deviant behavior, or about whether efficacy should be considered only in relation to normative behaviors. For example, Levashina and Campion (2007) and others studying deviant job search behaviors have not, to our knowledge, previously examined the relationship between self-efficacy and deviant behavior.

Thus, we encourage continued work in this area, but our findings provide initial evidence enabling professionals to: (1) more readily identify individuals who might be at risk for committing resume fraud; (2) prepare for *when* they might be more

prone to fraud; and (3) counsel them appropriately to instead redouble search effort as a means of redressing envious thoughts, or even to network or seek advice from those they envy (e.g., Kalning, 2014; Martin, 2013). Resume fraud might be reduced by leveraging social comparison processes such as providing accurate information about cohort-wide job search patterns and outcomes, forming job seeker support groups that foster increased effort-related strategies, or simply increasing job seeker efficacy levels. Thus, beyond helping companies identify resume fraud antecedents and outcomes, we believe our work holds implications for preventing resume fraud in the first place and instead encouraging job seekers to respond to envy more normatively.

Our results might be applicable to contexts other than job search. Future research should extend our model and temporal perspective to consider other pressurized goal striving situations; whether in organizational, community, sporting, or other contexts in which temporal, market, or other contingencies combine to make people vulnerable to deviant versus normative emotional reactions. For example, any organizational system or process that includes temporal comparative or socio-contextual considerations, such as quarterly or annual sales or manufacturing objectives, might yield different responses to envy depending on process stages. Also, researchers should consider other factors that might generate challenge- or threat-oriented responses to envy. Here, we develop logic suggesting that clockor event-based temporalities are key considerations, although other factors such as job search type might drive different responses. For example, passive job seekers might view their searches as less critical than unemployed job seekers or new entrants. Older, or more experienced or accomplished job seekers may experience less job search pressure, whatever the chronological time or event. Or, financial pressures may be more powerful than temporal- or marketbased pressures.

Future research should also specify how job seekers choose or change referents to manage job search envy. A complete treatment of comparison-others was beyond our scope. Instead, we focused on upward comparisons by which job seekers compete with or try to emulate others they envy; for example classmates who have been invited to more interviews. However, seekers might shift to downward comparisons in threatening situations (Buunk & Gibbons, 2007); for example by comparing themselves with others who have been invited to fewer interviews. Perhaps that explains why lower overall

job search envy occurred during the more critical job search event than during the internship search event in Study 2. That is, threat-salience during the internship search might have caused some seekers to shift comparisons to others relatively worse off in their search rather than acting on job search envy by engaging in deviant behavior. Qualitative approaches would greatly enrich ongoing work in this area by increasing our understanding of job search envy and associated social comparative intricacies.

CONCLUSION

In conclusion, we report two studies examining job search envy's transmutation as either resume fraud or search effort across job search time or events. Our results indicate that job search envy relates to deviant and normative behaviors, but the impact on these behaviors differs depending on combinations of market- and temporal clock- or event-based pressures experienced during job searches. Our approach responds to calls to provide a temporal lens to behavioral science theories, and to envy and job search theories in particular. We believe our theoretical development and findings will better position researchers to expand the scope of social comparison processes to consider temporality, the transmutation of envy, and the confluence of factors that drive job seeker behavior.

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