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DOES JOB SATISFACTION RISE AND FALL WITH THE ECONOMY? CROSS-SECTIONAL, LONGITUDINAL, AND EXPERIMENTAL EVIDENCE THAT JOB SATISFACTION INCREASES DURING RECESSIONS

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While recessions have many adverse consequences for individuals and organizations, we propose that they have positive implications for job satisfaction. We argue that during bad economic times, people will be less attuned to other possible jobs, and more likely to see their own jobs favorably. We find support for these predictions across three studies. Study 1 (n = 23,335) utilizes a large cross-sectional survey of American adults collected over four decades and finds that job satisfaction increases during recessions and declines during booms. Study 2 (n = 12,859) replicates this result using a large longitudinal survey of British adults and finds that job satisfaction rises and falls with the unemployment rate even within the same people. Finally, Study 3 (n = 512) uses an experimental design and finds that the relationship between economic conditions and job satisfaction is mediated by the reduced salience of alternative jobs. While scholars have long recognized that job satisfaction is affected by situational features inside organizations, our findings suggest that conditions outside the workplace can also influence how people think about and evaluate their jobs.

Recessions are a regular feature of the American economy. Since 1980, the United States has weathered six recessions of varying depths and durations (National Bureau of Economic Research, 2021). While each recession has different causes and consequences, they all have widespread implications for organizations and their employees. During recessions, organizations are often forced to slash their budgets, curtail new projects, eliminate divisions, limit hiring, and even lay off workers. Some organizations struggle simply to survive. On average, nearly 20% of publicly traded companies shutter during recessions (Gulati, Nohria, & Wohlgezogen, 2010). Those that do endure often take years to return to their pre-recession form (Grusky, Western, & Wimer, 2011).

While economic downturns are a common and consequential feature of organizational life, relatively little is known about how they influence the way people think about and affectively evaluate their jobs. On the surface, it seems likely that recessions will negatively affect job satisfaction. By most metrics, workplaces become more challenging places to inhabit during tumultuous times. Employees who manage to keep their jobs are often asked to forgo raises, work with fewer resources, and take over tasks from dismissed colleagues (e.g., Fenwick & Tausig, 1994). Consequently, during recessions employees report more workplace stress (Fenwick & Tausig, 1994; Houdmont, Kerr, & Addley, 2012), increased work overload (Brenner & Mooney, 1983), and lower job security (De Witte, 1999), all of which are likely to undermine job satisfaction.

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We argue that despite these challenges, recessions[1] are likely to bolster job satisfaction. This prediction stems from research showing that satisfaction does not always reflect the quality of workplace conditions (e.g., Bianchi, 2013; Clark, 1997; Clark, Oswald, & Warr, 1996; Iyengar, Wells, & Schwartz, 2006). Indeed, even when the quality of jobs is objectively worse, people sometimes evaluate jobs subjectively better depending on how they think about their jobs and the context in which they are assessed. We propose that challenging economic times will promote positive ways of thinking about and evaluating jobs. Specifically, we argue that during economic downturns people will be less attuned to other possible jobs and more likely to view their own jobs favorably.

We seek to make several contributions to research on job satisfaction and the role of societal conditions on workplace attitudes. First, while a large body of work has documented situational antecedents of job satisfaction, it has focused almost exclusively on conditions within the workplace itself. Our research suggests that conditions outside of organizations can also shape how people perceive and react to their jobs. Second, we provide theoretical and empirical support for the idea that challenging events can promote positive sense-making processes within organizations. Past work has highlighted the detrimental effects of adverse societal events, suggesting that they distract employees from their jobs and trigger disengagement from work (e.g., Leigh & Melwani, 2022; Mainiero & Gibson, 2003). Our findings suggest that in some situations, adverse events can cultivate positive sense-making processes, which in turn can bolster workplace attitudes. Finally, our research contributes to a growing body of work on the psychological effects of recessions. While past research has found that recessions influence how people think about themselves (Bianchi, 2016) and their lives (Di Tella, MacCulloch, & Oswald, 2001), our findings suggest that they also affect how people think about their jobs.

JOB SATISFACTION: SITUATIONAL PREDICTORS

Job satisfaction is likely the most studied variable in organizational behavior, largely because of its widespread implications for personal and professional life (Judge & Church, 2000; Spector, 1997). Existing job satisfaction research has focused primarily on situational variables inside the workplace. For instance, past work has suggested that features of a job such as pay (e.g., Judge et al., 2010) and benefits (Tessema, Ready, & Embaye, 2013) elicit greater satisfaction. Other work has found that employees are happier with their jobs when they are given a variety of tasks, discretion over how the work is done, and exposure to the impact of their work (e.g., Grant, 2008, 2012; Hackman & Oldham, 1976). Still other situational investigations have highlighted the importance of workplace relationships, suggesting that people are more satisfied with their jobs when they receive social and instrumental support from their coworkers and fair and respectful treatment from their bosses (Colquitt et al., 2001; Ducharme & Martin, 2000; Tepper, 2000). Although these inquiries differ in the content of their focus, they all similarly examine conditions, treatment, and relationships within the workplace.

While situational accounts of job satisfaction offer considerable explanatory power, they largely overlook the broader context in which individuals and organizations are immersed. As such, these approaches treat organizations as insular entities devoid of interaction with and influence from the outside world. We propose that contextual factors outside organizations will affect attitudes within them. We draw on several lines of reasoning to support this possibility. First, past work has suggested that societal conditions have implications for a broad range of psychological and behavioral outcomes. For instance, the terrorist attacks of September 11th precipitated widespread increases in stress, even among people who are geographically removed from the attacks (Schuster et al., 2001). Moreover, widely publicized cases of police brutality often evoke threat and lead to disengagement at work, even among workers who are physically distant from the violence (Leigh & Melwani, 2022). Recessions similarly affect psychological processes across disparate domains of life. For instance, during recessions people regard outgroup members with greater suspicion and disdain (Bianchi, Hall, & Lee, 2018). Americans also become less individualistic and more interdependent during recessions, preferring songs with more plural pronouns and baby names that are more common (Bianchi, 2016). These findings suggest that societal conditions seep into many aspects of life and affect how people perceive, interpret, and ultimately react to their environment.

[1] Throughout this paper, we use the term "recession" to refer to periods of relatively high unemployment. While recessions technically consist of two consecutive quarters of decline in gross domestic product (GDP), the term is commonly used in the academic literature to describe periods of relatively high unemployment.

Research on the impressionable years hypothesis also supports the idea that exogenous conditions will influence job attitudes. Work in this tradition shows that conditions in early adulthood, or during one's "impressionable years," leave a lasting mark on how people make sense of and act on the world (Bianchi, 2014; Bianchi & Mohliver, 2016; Giuliano & Spilimbergo, 2014; Malmendier & Nagel, 2011). For instance, people who experience war during their impressionable years tend to be particularly concerned with national security as older adults (Inglehart, 1997). Similarly, people who come of age during recessions tend to be more financially cautious in later adulthood (Malmendier & Nagel, 2011). Adverse economic conditions during this formative time also shape how people perceive and react to their workplace even long after these conditions have changed. For instance, CEOs who enter the workforce during a recession tend to be more fiscally conservative (Schoar & Zuo, 2017), behave more ethically at work (Bianchi & Mohliver, 2016), and are less likely to pay themselves outsized salaries (Bianchi, 2014). While existing research has documented the lasting mark recessions leave on young adults, we similarly expect recessions to have contemporaneous effects on the job attitudes of a broader set of workers. Indeed, if economic conditions can shape attitudes for years to come, they must be psychologically consequential when they occur.

In sum, we propose that situational factors outside of organizations are likely to affect the attitudes of workers within them. Much in the way that Granovetter (1985) argued that individuals are not mindless products of their surrounding environments, neither are they entirely unaffected by them. Rather, external conditions are likely to color the way people make sense of and respond to their work environment.

THE STATE OF THE ECONOMY AND JOB ATTITUDES

While recessions often undermine the quality of workplace life, there are several reasons to expect that they may bolster job satisfaction. For one, job satisfaction does not always reflect the quality of workplace conditions or outcomes (e.g., Bianchi, 2013; Clark, 1997; Hodson, 1989). For instance, women tend to be happier with their jobs than men, even though women often receive lower salaries and hold less prestigious positions (Clark, 1997; Hodson, 1989). Women appear to evaluate their jobs against lower and more affectively favorable standards compared to men (Clark, 1997). Thus, even though the features of their jobs are often measurably worse, they tend to regard them more favorably. Similarly, job seekers looking for a "good-enough" job tend to be more satisfied with their ultimate job selection than those aiming for the very best job, even though people seeking good-enough jobs often receive fewer offers and accept lower-paying jobs (Iyengar et al., 2006). These findings suggest that job satisfaction does not always mirror the objective conditions of a job. Rather, it is also determined by how people perceive their jobs, and the broader context in which these jobs are evaluated.

Research on dispositional sources of job satisfaction also highlights how perceptual processes can shape job attitudes (e.g., Arvey, Bouchard, Segal, & Abraham, 1989; Connolly & Viswesvaran, 2000; Judge et al., 1998; Judge, Heller, & Mount, 2002; Staw, Bell, & Clausen, 1986; Staw & Ross, 1985). For instance, people who are generally more trusting tend to see their workplaces as fairer and rate their jobs as more satisfying than their less trusting counterparts, even when they have access to identical fairness information (Bianchi & Brockner, 2012). Similarly, people with generally positive outlooks tend to evaluate their jobs more favorably compared to their more negative counterparts, even when occupying similar jobs (Judge et al., 1998; Judge et al., 2000). Thus, even in comparable settings, personality influences what people notice, focus on, and remember about their jobs, and ultimately how favorably they assess them.

We similarly suggest that economic conditions will affect how people perceive and evaluate their jobs. We propose that during challenging economic times, people will perceive their jobs more positively and regard them as more satisfying.

Why Job Satisfaction Might Rise during Recessions

While there are likely many psychological forces that both bolster and undermine job satisfaction during recessions, we focus on the salience of alternative jobs given that job availability is a defining feature of economic downturns (DeWolf & Klemmer, 2010; Hall, 2005). During recessions, many organizations lay off employees and freeze hiring, resulting in fewer job openings and more job seekers. The limited availability of jobs during downturns is well-known to most workers. Indeed, the higher the unemployment rate, the more likely people are to report that jobs are hard to find ($r(576) = .94$, $p < .001$;

Conference Board, 2022).[2] We reasoned that if it is harder to find jobs during recessions and employees are aware of this difficulty, then alternative jobs should be less salient during these times. Indeed, alternatives are typically only salient when they are both desirable and within reach (e.g., Miller, 1997).

When job alternatives are plentiful and compelling, job satisfaction tends to decline (Hulin, Roznowski, & Hachiya, 1985; Miller, Katerburg, & Hulin, 1979; Mobley, Homer, & Hollingsworth, 1978). Alternatives appear to depress satisfaction in part by elevating the standards against which jobs are judged (e.g., Hulin et al., 1985; Muchinsky & Morrow, 1980). For instance, the Cornell model of job satisfaction suggests that people evaluate their jobs against a frame of reference that is partially based on the attractiveness and salience of other possible jobs (Smith, Kendall, & Hulin, 1969). The investment model of satisfaction similarly suggests that compelling alternatives increase the opportunity costs of holding a particular job and raise the benchmark by which that job is appraised (e.g., Farrell & Rusbult, 1981; Rusbult & Farrell, 1983; Van Dam, 2005). When alternatives are attractive, abundant, and obtainable, jobs tend to be judged against higher standards and evaluated less favorably. Conversely, when alternatives are limited and less compelling, outcomes are judged against lower and more affectively favorable standards.

Alternatives also undermine satisfaction by inviting comparisons between actual and potential outcomes. When alternatives are plentiful and salient, people tend to assess the advantages and disadvantages of each possible option (e.g., Brenner, Rottenstreich, & Sood, 1999; Iyengar & Lepper, 2000; Iyengar et al., 2006; Naquin, 2003). While this can focus attention on the positive elements of a job, it also brings attention to negative aspects. Because negative features tend to hold more affective power than positive ones, the heightened salience of negative factors tends to make each option less attractive (Tversky & Kahneman, 1991). Thus, in the presence of salient alternatives, the negative dimensions of one's job are likely to be more prominent and affectively costly.

Conversely, when unemployment is high and job options are limited, people are more likely to focus on the positive features of their jobs rather than dwelling on their shortcomings (e.g., Gilbert & Ebert, 2002; Gilovich, Medvec, & Chen, 1995; Roese & Summerville, 2005). When alternatives are limited, people often use cognitive strategies to make their existing circumstances more palatable (e.g., Jost & Hunyady, 2003; Kay et al., 2009). One strategy is to defend the existing environment and view it more positively (Kay et al., 2009; Laurin et al., 2010; Proudfoot & Kay, 2014). When leaving a situation or organization is difficult, attuning to shortcomings provokes discord without any clear corrective course of action. For instance, one study found that employees are more likely to overlook workplace problems when job movement is constrained, likely because acknowledging faults elicits frustration without any mechanism to reduce it (Proudfoot, Kay, & Mann, 2015). We similarly expect that when jobs are scarce and movement is restricted, people will be motivated to see their jobs more positively and rate them as more satisfying.

In sum, we propose that when the economy is floundering and job opportunities are limited, other possible jobs will be less salient, thereby bolstering job satisfaction. Conversely, when the economy is booming and job options are seemingly plentiful, alternative jobs are likely to be more salient and affectively costly.

Throughout the paper, we conceptualize and operationalize economic conditions using unemployment rates. We do so because the unemployment rate is tightly linked to perceptions of job availability as well as to overall impressions of the economy (e.g., Bianchi, 2016; Hulin et al., 1985; Muchinsky & Morrow, 1980).

This leads to the following predictions:

Hypothesis 1. There is a positive relationship between the unemployment rate and job satisfaction.

Hypothesis 2. The positive relationship between the unemployment rate and job satisfaction is mediated by the reduced salience of alternative jobs.

Overview of the Present Research

We tested these hypotheses in three studies using large, representative samples of working adults and cross-sectional, longitudinal, and experimental methods. In Study 1, we used data from a large cross-

[2] In each monthly survey, the Consumer Confidence Index includes a question about the availability of jobs in each respondent's area. This index is compiled by the Conference Board and is available beginning in 1967. The item regarding job availability reads, "What would you say about available jobs in your area right now?" Response options include: "plentiful," "not so many," and "hard to get." The correlation reported shows the relationship between the monthly unemployment rate and the percentage of respondents who reported that jobs were "hard to get."

sectional survey collected over a 40-year time-period to test whether job satisfaction rose and fell with the unemployment rate. In Study 2, we utilized data from a large, longitudinal survey of working adults in the United Kingdom to evaluate whether job satisfaction fluctuated with the economy, even within the same individuals. Finally, in Study 3, we experimentally tested whether bad economic conditions reduced the salience of other possible jobs and in turn increased job satisfaction. We used this diversity of contexts and methodological approaches to ensure that any observed effects were robust to different settings, time periods, and empirical approaches.

STUDY 1

Study 1 tested whether job satisfaction rose and fell with the economy using data from the General Social Survey (GSS). The GSS is a large cross-sectional survey consisting of a nationally representative sample of American adults. The survey was administered annually from 1972 until 1994 and biannually thereafter. A core group of questions appears in every administration of the survey, including a question about job satisfaction. Other questions appear intermittently or in only one administration of the survey.

Sample

The sample consisted of 23,335 respondents who were interviewed in one of the 29 waves of the survey administered between 1974 and 2016. We included respondents if they were working full time at the time of the interview and had valid information for all independent and dependent variables. The majority of respondents were male (55.1%) and self-identified as White (81.2%). Their average age was 40.5 years old (SD = 12.1 years).

Measures

National economic conditions. Economic conditions were measured using the national unemployment rate. We used this metric for several reasons. First, we propose that the relationship between bad economic conditions and job satisfaction will be mediated by a reduced salience of alternative jobs. The unemployment rate mirrors available job opportunities more tightly than any other commonly used indicator of economic performance (e.g., Hulin et al., 1985; Muchinsky & Morrow, 1980).

Second, the unemployment rate is more strongly related to people's perceptions of how the economy is doing than other widely available economic indicators. For instance, Bianchi (2016) reported that between 1967 and 2014, the unemployment rate was strongly correlated with people's assessments of the economy ($r = 0.88$, $p < .001$), while indicators such as inflation-adjusted GDP or stock market performance were not. Finally, unlike other economic indicators, the unemployment rate is relatively independent of time trends. Over the time period covered in Study 1, the unemployment rate was only modestly correlated with year ($r = -.21$). Conversely, indicators such as GDP and stock market performance were strongly correlated with year ($r = .99$ and $r = .94$ respectively). For these reasons, research in economics (e.g., Di Tella, MacCulloch, & Oswald, 2001; Ruhm, 2000; Tausig & Fenwick, 1999), psychology (e.g., Bianchi, 2016; Bianchi et al., 2018; Hill, Rodeheffer, Griskevicius, Durante, & White, 2012), and organizational behavior (e.g., Bianchi, 2013; Bianchi & Mohliver, 2016; Carsten & Spector, 1987; Hom, Caranikas-Walker, Prussia, & Griffeth, 1992; Sirola & Pitesa, 2017) has operationalized economic conditions using the unemployment rate.

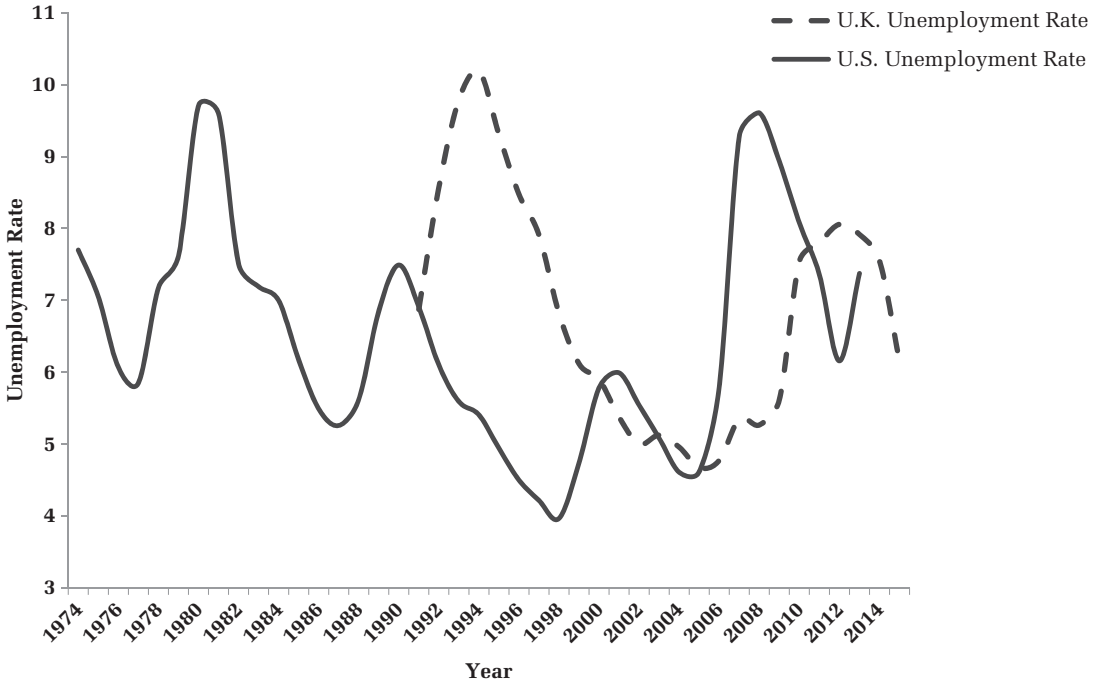
Figure 1 illustrates fluctuations in the unemployment rate in the United States during the time period covered in Study 1. It also depicts the unemployment rate in the United Kingdom during the time period covered in Study 2. As shown in this figure, during this period, the unemployment rate in the United States fluctuated from 3.97% in 2000 to 9.71% in 1982. In the United Kingdom, the unemployment rate ranged from 4.68% in 2004 to a high of 10.19% in 1993.

State-level economic conditions. We also used state-level unemployment rates to assess whether more proximal economic conditions were predictive of job satisfaction. This metric allowed us to more cleanly isolate the effect of economic conditions apart from other macro-environmental conditions or trends.

We accessed state-level information for each participant by applying for restricted state-level information from the National Opinion Resource Center, which conducts the GSS. We then created a variable consisting of the state unemployment rate for each participant using the state of current residence and survey year. State unemployment rates during this time ranged from 2.3% to 15.3%.

The samples for state analyses are slightly smaller than the national sample for three reasons. First, the Bureau of Labor Statistics did not begin reporting comparable state-level economic statistics until 1976. Second, not all respondents had valid state information. Third, some respondents

FIGURE 1
Unemployment Rate in the United States and the United Kingdom over the Time Periods Covered in Studies 1 and 2



lived in U.S. territories or on military bases, and we did not have economic information for these places.

Job satisfaction. Job satisfaction was measured using a question included in every administration of the GSS. Respondents were asked: "On the whole, how satisfied are you with the work you do—would you say you are very satisfied, moderately satisfied, a little dissatisfied, or very dissatisfied?" Response values were recoded so that higher values reflected greater job satisfaction.

One disadvantage of this measure is that it assesses work satisfaction, which is somewhat different from job satisfaction. We assessed whether this measure behaved similarly to more traditional measures of job satisfaction by administering a survey to 250 working adults from Amazon Mechanical Turk. The survey consisted of the item used in the GSS as well as a more traditional 5-item job satisfaction scale (Brayfield & Rothe, 1951). Work satisfaction was highly correlated with this more traditional measure of job satisfaction ($r = .76$, $p < .001$). Moreover, when we added the work satisfaction item to the job satisfaction scale, the work satisfaction item and five job satisfaction items showed similar item–total correlations. This provided reassurance that the GSS item behaved similarly to more conventional measures of job satisfaction.

Another potential concern with our job satisfaction measure was that it consisted of a single item. Yet, past research has shown that single-item measures of job satisfaction are strongly related to multifaceted measures and in some cases are more predictive of other organizational attitudes and behaviors compared to multi-item measures (Nagy, 2002; Wanous, Reichers, & Hudy, 1997).

Control variables. We included control variables that past research has suggested are important predictors of job satisfaction. These included age and age squared (e.g., Clark, Oswald, & Warr, 1996; Warr, 1992), income (Judge et al., 2010), and gender (Clark, 1997). Income was collected categorically during each administration of the GSS. Over time, the income categories have changed. The GSS computed a comparable measure of income over time by taking the midpoint of each respondent's selection and adjusting it for inflation (Ligon, 1994). We then log-transformed this variable. Finally, we controlled for linear time trends given that job satisfaction has declined over time (Blanchflower & Oswald, 1999).

Additional analyses also controlled for industry and occupation. Some industries, such as construction and manufacturing, are typically hit hard by recessions (Goodman & Mance, 2011). If the industries that shed the most jobs during recessions also tend to have the least satisfied employees, then this could provide an alternative explanation for any observed effects. Occupations were coded using occupational codes as of 2010, which included six occupational categories. Industries were coded using the 16 industry categories in the North American Industry Classification System 2007.

Analytic strategy. For all analyses, we used ordinary least squares (OLS) regressions. For national-level analyses, we clustered the random errors by year given that responses were nested within year. For state-level analyses, we clustered the random errors by state year (e.g., Alabama 2016, Alabama 2017).

Results

Table 1 presents the means and simple correlations for all variables. As shown in this table, simple correlations provided initial support for the hypothesis that bad economic times are associated with greater job satisfaction.

Table 2 presents results for the OLS regressions. Model 1 tests the relationship between the unemployment rate and job satisfaction including only a linear time trend control. As shown in this model, higher unemployment rates predicted greater job satisfaction ($b = 0.011$, $SE = 0.005$, $p < .05$). Model 2 added the individual-level characteristics of age, age squared, gender, and income, and found similar results ($b = 0.011$, $SE = 0.004$, $p < .05$). Model 3 added industry and occupational controls and similarly found that worse economic conditions predicted higher job satisfaction ($b = 0.010$, $SE = 0.004$, $p < .05$).[3]

Models 4–6 utilized state rather than national unemployment rates. They also included state dummy variables, which allowed us to examine the effect of fluctuations in the unemployment rate while controlling for state-level differences. Model 4 included only a linear time trend and found that higher state unemployment rates predicted greater job satisfaction ($b = 0.009$, $SE = 0.003$, $p < .01$). Model 5 added individual-level characteristics and found similar effects ($b = 0.008$, $SE = 0.003$, $p < .01$). Finally, Model 6 added industry and occupational controls and found similar results ($b = 0.007$, $SE = 0.003$, $p < .01$).

Discussion

Study 1 provided support for the prediction that economic downturns are linked to greater job satisfaction. Using a large, nationally representative sample of working adults collected over four decades, we found that job satisfaction rose in bad economic times and fell in good economic times. These effects emerged when economic conditions were assessed at both the national and state level.

Despite the large and representative nature of the sample and the long time period covered, Study 1 has at least one important limitation. It is possible that the least satisfied workers are particularly likely to lose their jobs during downturns. If so, then greater satisfaction during downturns may be explained by the changing composition of the workforce rather than meaningful shifts in satisfaction. Study 2 was designed to address this limitation.

STUDY 2

Study 2 built on Study 1 in several ways. First, Study 2 utilized a longitudinal research design. This allowed us to examine whether fluctuations in the economy predicted changes in job satisfaction within individuals. Indeed, as previously noted, it is possible that cyclical changes in the composition of the workforce may have driven the effects in Study 1. A longitudinal study addresses this limitation by following the same people over time and examining whether they are more- or less-satisfied with their jobs depending on the state of the

[3] We also tested the robustness of our effects in Study 1 using other economic indicators. We reran the model shown in Table 2, Model 3 using both indicators that were highly correlated with the perceptions of the economy (median income, consumer confidence, consumer sentiment, and the Consumer Price Index), as well as those that were not (real GDP and SP500). As expected, economic indicators that were linked to perceptions of the economy were predictive of greater job satisfaction. Indeed, when used as the primary predictor instead of the unemployment rate, inflation-adjusted median income divided by 10,000 ($b = -0.005$, $SE = 0.002$, $p < .05$), consumer confidence ($b = -0.033$, $SE = 0.014$, $p < .05$), consumer sentiment ($b = -0.010$, $SE = 0.004$, $p < .01$), and Consumer Price Index ($b = -0.0064$, $SE = 0.0019$, $p < .01$) were all predictive of job satisfaction. Metrics of the economy that were not tightly tied to consumer perceptions were not similarly predictive (e.g., real per capita GDP in 1,000s: $b = -0.005$, $SE = 0.004$, $p =$ n.s.; S&P500: $b = 0.000$, $SE = 0.000$, $p =$ n.s.).

TABLE 1
Descriptive Statistics and Correlations, Study 1

Variable	Mean	*SD*	1	2	3	4	5	6
1. National unemployment rate (n = 23,335)	6.28	1.51	–					
2. State unemployment rate (n = 20,890)	6.20	2.00	0.76***	–				
3. Job satisfaction	3.34	0.77	0.01*	0.01	–			
4. Year	1994.65	11.82	−0.34***	−0.25***	0.02**	–		
5. Age	40.50	12.05	−0.02**	−0.02**	0.12***	0.13***	–	
6. Male	0.55	0.50	0.01	0.01*	0.00	−0.05***	0.02*	–
7. Income	$26,067	$29,912	−0.03***	−0.01*	0.13***	0.03***	0.24***	0.26***

Note: National unemployment rates are available for all respondents. State unemployment data were only collected in a consistent way beginning in 1976 and thus are only available for respondents who participated in 1976 or later and resided in a U.S. state and not territory.
* $p < .05$
** $p < .01$
*** $p < .001$, two-tailed

economy. We also conducted supplementary analyses in which we restricted the sample to people who were continuously employed throughout the study. This helped rule out the possibility that any observed effects were driven by changes in the composition of the workforce in different economic times.

Study 2 also built on Study 1 by examining these effects in the United Kingdom, rather than the United States. While major economic downturns often hit these two countries at similar times, the depth and magnitude of the recessions often differ (see Figure 1). For instance, the United Kingdom was more adversely affected by the recession of the early 1990 s than was the United States. Conversely, the Great Recession (2007–2009) yielded a considerably higher jump in the unemployment rate in the United States than in the United Kingdom. The variation in the timing and the depth of recessions across these countries mitigates concerns that these effects may be driven by other global trends or events.

Sample

Data were drawn from the British Household Panel Survey (BHPS) and Understanding Society survey—two longitudinal surveys of adults in the United Kingdom collected between 1991 and 2013. The studies were conducted by the Institute for Social and Economic Research (ISER) at the University of Essex. The BHPS was a large longitudinal study that began in 1991 and followed respondents annually until it was discontinued in 2008. After that, the ISER began conducting another survey, Understanding Society; in the second wave of this, participants from the BHPS were invited to participate. Roughly 84% of the BHPS participants joined the new survey. We merged data from Waves 2 through 5 of Understanding Society with all 18 waves of the BHPS. Although the Understanding Society sample included a new set of non-BHPS participants, we restricted our analyses to the BHPS sample.

The original BHPS sample was selected in 1991 and consisted of a random sample of noninstitutionalized residents of the United Kingdom, excluding a sparsely populated area in northern Scotland. Home addresses were selected using an equal-probability clustered and stratified design and all households at the corresponding dwelling were surveyed. The first wave included adults from 5,500 households. All Wave 1 participants became part of the longitudinal sample and were followed over time. After the first wave, participants were added to the sample if they were children of original members or if they were parents of a sample member who joined the household. Every year, each adult in the household completed a 45-minute questionnaire covering a wide range of topics, including employment, income, and job satisfaction.

Our sample included all participants from the original BHPS sample (n = 12,859).[4] Slightly more than half of the sample were female (50.9%) and median age (during each respondent's participation period) was 35.8 years old (SD = 14.4 years). Average annual income from labor was £15,954, $SD_{between}$ = £11,258, SD_{within} = £9,741. Most respondents self-identified as White (80.5%), although race information was missing for 16% of

[4] We did not include respondents from the regional oversamples and other oversamples. These oversamples were added at least seven years after the first wave and during a major recession. Their inclusion creates a severe imbalance, given the focus of our study.

TABLE 2
OLS Regressions Predicting Job Satisfaction, Study 1

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Unemployment rate	0.011*	0.011*	0.010*			
	(0.005)	(0.004)	(0.004)			
State unemployment rate				0.009**	0.008**	0.007**
				(0.003)	(0.003)	(0.003)
Year	0.002*	0.001	0.000	0.002***	0.001	0.000
	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Age		−0.008***	−0.008**		−0.008**	−0.009**
		(0.002)	(0.002)		(0.003)	(0.003)
Age^2		0.000***	0.000***		0.000***	0.000***
		(0.000)	(0.000)		(0.000)	(0.000)
Male		−0.048*	−0.034*		−0.047***	−0.032*
		(0.015)	(0.015)		(0.012)	(0.013)
Pay (log)		0.106***	0.090***		0.113***	0.097***
		(0.007)	(0.007)		(0.007)	(0.008)
Industry						
Mining, quarry, and oil and gas extraction			−0.060			−0.055
			(0.062)			(0.079)
Utilities			−0.049			−0.078
			(0.066)			(0.061)
Construction			0.012			0.004
			(0.049)			(0.049)
Manufacturing			−0.150***			−0.149***
			(0.041)			(0.046)
Wholesale and retail trade			−0.168***			−0.178***
			(0.044)			(0.046)
Transportation			−0.149**			−0.159**
			(0.050)			(0.052)
Information			−0.129*			−0.133*
			(0.052)			(0.053)
Financial activities			−0.108*			−0.107*
			(0.043)			(0.046)
Professional and Technical services			−0.114*			−0.109*
			(0.044)			(0.049)
Management, administrative, and waste			−0.080			−0.079
			(0.047)			(0.054)
Services						
Education and health services			−0.024			−0.024
			(0.043)			(0.045)
Leisure and hospitality			−0.184***			−0.197***
			(0.051)			(0.053)
Other services			0.038			0.038
			(0.040)			(0.049)
Public administration			−0.110*			−0.122*
			(0.046)			(0.050)
Active military duty			−0.088			−0.133
			(0.109)			(0.127)
Occupation						
Professional and related			−0.063***			−0.063***
			(0.016)			(0.019)
Service			−0.035*			−0.045*
			(0.020)			(0.022)
Sales and office			−0.135***			−0.138***
			(0.014)			(0.017)
National resources, construction, and maintenance			−0.064**			−0.061**
			(0.021)			(0.023)
Production, transportation, and moving			−0.148***			−0.147***
			(0.015)			(0.020)

TABLE 2
(Continued)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
State-level dummy variables				Yes	Yes	Yes
Observations	23,335	23,335	23,335	20,890	20,890	20,890
R^2	0.015	0.027	0.043	0.027	0.032	0.048

Notes: Unstandardized coefficients with standard errors are presented. For national level analyses, standard errors were clustered by year to account for multiple observations within a single year. For state level analyses, standard errors were clustered by year and state. For industry, the reference category was Agriculture, Forestry, Fishing, and Hunting. For Occupation, the reference category was Management. All decimal places are taken three places to more accurately illustrate the magnitude of the standard errors.

* $p < .05$
** $p < .01$
*** $p < .001$

respondents. Other respondents self-identified as Black (1.2%), Asian (1.6%), and other race (0.6%).

In our supplementary analysis, we limited the sample to participants who did not experience involuntary spells of unemployment over the course of the study. This restricted sample consisted of 8,617 respondents, or 67% of the sample. Of this restricted sample, the majority were female (53.0%) and the median age during the year of participation was 36.9 years old ($SD = 14.9$ years).

Measures

Economic conditions. As in Study 1, economic conditions were measured using the unemployment rate. This was gathered from Eurostat (ec.europa.eu), the statistical office of the European Union. As shown in Figure 1, the United Kingdom experienced substantial variation in the unemployment rate ($M = 6.49$, $SD = 1.66$) during the time period examined (1991–2013) and experienced major economic downturns in 1990–1991 and 2008–2009.

Job satisfaction. Job satisfaction was measured using the following item: "All things considered, how satisfied or dissatisfied are you with your present job overall?" with response options ranging from 1 ("not satisfied at all") to 7 ("completely satisfied"). Job satisfaction questions were only asked if the respondent was employed at the time of the survey.

Control and dummy variables. As in Study 1, we controlled for time-variant factors that past research has suggested are important predictors of job satisfaction. These included age, age squared (Clark, Oswald, & Warr, 1996), and income (Judge et al., 2010). We also controlled for one time-invariant factor: gender (Clark, 1997). In the BHPS, annual income from labor was drawn from the imputed variable *wfiyrl*, and represented the gross amount earned between September 1 of the prior year and September 1 of the survey year. In Understanding Society, the monthly income from labor was recorded using the imputed variable *w_fimnlabgrs_dv*, and represented the average monthly amount earned in the last 12 months. We transformed this figure into annual income. A small percentage of income values (<0.01%) in Understanding Society were negative, reflecting negative income for people who were self-employed. These were transformed to 0. Income was adjusted for inflation and log-transformed.

Analytic Approach

Given the nested nature of the data, we first examined whether there was substantial variation both within and between individuals. As shown in the descriptive statistics in Table 3, there was substantial variance at both levels. Moreover, we computed the intraclass correlation using a null model. The intraclass correlation for job satisfaction was .30, indicating substantial variance at both between- and within-person levels. As a result, we used hierarchical models to account for multiple observations within individuals. Because both the predictor and dependent variables were at level 1, we used a first-order autoregressive residual structure. Nonconsecutive values from intermittent participation were treated as gaps. All respondents had missing data in 2009 because the Understanding Society sample did not yet include BHPS participants.

This yielded the following level 1 and level 2 equations with all covariates:

Level 1:

$$\begin{aligned}\text{Job Satisfaction} = {} & \beta_{0j} + \beta_{1j}(\textit{Unemployment Rate}) \\ & + \beta_{2j}(\textit{Age}) + \beta_{3j}(\textit{Age}^2) \\ & + \beta_{4j}(\textit{Log Income}) + r_{ij}\end{aligned}$$

TABLE 3
Means, Standard Deviations, Minimums, and Maximums, Study 2 (n = 12,859)

Variables	Mean	$SD_{overall}$	$SD_{between}$	SD_{within}	1	2	3	4
1. Unemployment rate	6.80	1.75	1.39	1.48				
2. Job satisfaction	5.37	1.31	1.04	1.03	0.02***			
3. Income (log)	9.52	1.60	1.78	1.16	−0.04***	−0.07***		
4. Age	38.52	12.77	13.56	4.89	−0.01***	0.04***	0.22***	
5. Female	0.52	0.50	0.50	0.50	0.00	0.09***	−0.20***	−0.01*

Notes: The average number of years per participant is 7.7. The number of observations ranged from 98,153 to 99,314 depending on whether respondents had valid data for each measure. The number of participants ranges from 12,801 to 12,859.

* $p < .05$

*** $p < .001$, two-tailed

Level 2:

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(Female) + u_{0j}$$
$$\beta_{1j} = \gamma_{10} + u_{1j}$$
$$\beta_{2j} = \gamma_{20} + u_{2j}$$
$$\beta_{3j} = \gamma_{30}$$
$$\beta_{4j} = \gamma_{40} + u_{4j}$$

Results

Table 3 reports the means, standard deviations, and correlations for all variables. Consistent with Hypothesis 1, the unemployment rate was positively correlated with job satisfaction.

Table 4 presents results using hierarchical linear models with random coefficients. As shown in Model 1, worse economic conditions were associated with greater job satisfaction (b = .013, SE = .003, $p < .001$). As shown in Model 2, similar results emerged when we controlled for age, age squared, gender, and income (b = .012, SE = .003, $p < .001$).

We next conducted a fixed-effects analysis. In this analysis, a dummy variable was entered for every participant. This dummy variable controlled for variation in all observed (e.g., race) and unobserved (e.g., personality) person-level variables (Vaisey & Miles, 2014). Thus, it allowed us to test whether economic fluctuations were associated with changes in job satisfaction within each individual. The same time-variant covariates were used. Gender was excluded from this analysis because it was time-invariant. As in the hierarchical models, we used autoregressive residuals. The results of this analysis are presented in Table 4, Model 3. As shown in this model, higher unemployment rates were associated with higher levels of job satisfaction (b = .064, SE = .003, $p < .001$), suggesting that economic conditions predicted fluctuations in job satisfaction even within the same individuals.

Supplemental Analyses

As previously noted, one alternative explanation for the observed results is that people who are less satisfied with their jobs may be more likely to experience unemployment during a recession and thereby drop out of the sample. We tested for this possibility by limiting our analyses to respondents who did not experience a period of unemployment during the course of the study. We created a dummy variable that reflected whether a participant experienced any spells of unemployment in the past year, and only included participants in this analysis if they had no periods of unemployment. This yielded a subsample of 8,587 participants who remained continuously employed throughout the observed time period.

The results of this supplementary analysis are shown in Table 4, Model 4. As shown in this model, higher unemployment rates predicted greater job satisfaction (b = .018, SE = .004, $p < .001$). These results suggest that the positive relationship between the unemployment rate and job satisfaction cannot be explained by changes in the composition of the workforce over the business cycle.

Discussion

Study 2 provided additional support for the hypothesis that bad economic times are associated with greater job satisfaction. A longitudinal survey following the same people over a long period of time found that macroeconomic conditions predicted within-person fluctuations in job satisfaction. Study 2 also provided evidence that this relationship could not be explained by changes in the composition of the workforce across economic cycles. Indeed, similar effects emerged among people who remained continuously employed throughout the study.

TABLE 4
Multilevel Model Predicting Job Satisfaction over Time, Study 2

Variable	Model 1	Model 2	Model 3	Model 4
Unemployment rate	0.013***	0.012***	0.064***	0.018***
	(0.003)	(0.003)	(0.003)	(0.004)
Age		−0.020***	0.162***	−0.015***
		(0.003)	(0.003)	(0.003)
Age^2		0.000***	−0.002***	0.000***
		(0.000)	(0.000)	(0.000)
Female		0.218***		0.189***
		(0.016)		(0.020)
Income (log)		−0.029***	−0.018***	−0.034***
		(0.003)	(0.004)	(0.004)
Individual fixed effects			Yes	
Intercept	5.292***	5.726***	1.559***	5.723***
	(0.020)	(0.055)	(0.040)	(0.069)
Participants	12,859	12,798	10,164	8,587
Year-observations	99,314	98,146	85,348	62,512

Notes: Standard errors were clustered by person. All figures are shown to three decimal places to more accurately illustrate the magnitude of the standard errors. Model 4 only includes people who were continuously employed throughout the study.
*** $p < .001$

STUDY 3

Study 3 was designed to build on the first two studies in two important ways. First, we manipulated, rather than measured, economic conditions, which allowed for a more direct test of causality. While we tried to address alternative explanations in Studies 1 and 2, the correlational nature of these datasets precluded us from establishing causality. Second, Study 3 tested for a mediator underlying the relationship between economic conditions and job satisfaction. While Studies 1 and 2 found support for this relationship, the measures in these surveys did not allow for a test for a psychological process driving this effect. In Study 3, we tested whether the salience of alternative jobs mediated the relationship between bad economic times and job satisfaction.

Participants and Procedure

Power analyses based on effect sizes from pilot tests suggested that we needed a sample of 550 usable respondents. Thus, we recruited a sample of 700 adults from Amazon Mechanical Turk. A total of 188 participants failed a basic attention check question or took an excessive amount of time to compete the survey (more than 2 standard deviations longer than the average) and were not included. This yielded a final sample of 512 people (M_{age} = 35.87, SD_{age} = 8.75). All participants were currently employed and had been at their jobs for an average of 14.33 (SD = 4.80) years. Roughly half were male (54.1%). Respondents reported a wide range of household incomes (<$40,000 = 26.8%, $40,000–80,000 = 48.9%, $80,000–120,000 = 18.7%, >$120,000 = 5.6%).

Participants were recruited for a study on memory recall. After giving consent, they were asked to read and briefly summarize a newspaper article and then complete a purportedly unrelated survey. The survey consisted of measures of job satisfaction and the salience of alternative jobs. Finally, participants completed a brief questionnaire with demographic questions and a 2-item manipulation check. The manipulation check consisted of the following questions: "Overall, how strong would you say the job market is right now?" (1 "very weak" to 7 to "very strong"), and "How would you describe the unemployment rate in this country?" (1 "very low" to 7 "very high").

Manipulation. The manipulation was modeled on one used by Hill et al., 2012 (Study 2). Participants were randomly assigned to read a modified *New York Times* article indicating that the economy was doing poorly (*bad economy*) or well (*good economy*). Both articles were formatted using the newspaper's logo, font, and style (see Appendix A). Participants were required to view the article for at least 30 seconds before they could advance to the next part of the study.

In the *bad economy* condition, respondents read a *New York Times* article adapted from an article published in early 2021 (Schwartz, 2021). The revised article was entitled, "New Unemployment Claims Rose Again Last Week" and was accompanied by a picture of people waiting to apply for unemployment benefits.

The article reported that new jobless claims were unusually high, and that finding a job was difficult. In the *good economy* condition, participants read an article entitled, "Job Openings Are Everywhere". The article reported that job openings were plentiful and securing a new job was easy. The articles were similar in length and style (*bad economy* = 112 words, *good economy* = 114 words).

Measures

Job satisfaction. Job satisfaction was assessed using Brayfield and Rothe's (1951) 5-item job satisfaction scale. A sample item was, "I feel fairly well satisfied with my present job" (1 "strongly disagree" to 7 "strongly agree"; $\alpha = .75$).

Salience of alternatives. Salience of alternatives was measured using Miller's (1997) 6-item Attention to Alternatives Index. Since the original scale was designed to assess the salience of alternative romantic partners, we adapted the scale to measure the salience of other possible jobs. A sample item was "I often think about other job opportunities" (1 "strongly disagree" to 7 "strongly agree", $\alpha = .87$). The modified scale is shown in Appendix B.

Control variables. As in Studies 1 and 2, we controlled for factors that are predictive of job satisfaction, including age, age squared, gender, and income. We also collected data on job tenure, and included that as a control as well. Finally, we included industry and occupational controls using the 17-category North American Industry Classification System and 6-category Census Occupational Classification system.

Results

Manipulation checks. As expected, participants in the bad economy condition ($M = 5.52$, $SD = 1.66$) rated the job market as significantly weaker than did participants in the good economy condition ($M = 6.04$, $SD = 1.08$, $t(510) = 4.23$, $p < 0.001$). Moreover, participants in the bad economy condition ($M = 5.99$, $SD = 1.24$) estimated that the unemployment rate was significantly higher than respondents in the good economy condition ($M = 5.65$, $SD = 1.55$, $t(510) = 2.74$, $p < 0.01$). Thus, the manipulation worked as intended.

Tests of hypotheses. Table 5 presents descriptive statistics and correlations for all independent and dependent variables. As a preliminary test of Hypothesis 1, we first examined whether job satisfaction differed by condition. As predicted, participants in the bad economy condition reported greater job satisfaction ($M = 4.83$, $SD = 0.89$) than did participants in the control condition ($M = 4.68$, $SD = 0.88$; $t(510) = 1.94$, $p = 0.05$). Moreover, controlling for age, age squared, gender, tenure, and income, worse economic conditions continued to predict higher job satisfaction ($b = 0.20$, $SE = 0.08$, $p = .01$).

To test Hypothesis 2, we conducted a mediation analysis using the *lavaan* (latent variable analysis) R package (Rosseel, 2012). We estimated the significance of indirect effects using bias-corrected accelerated bootstrap confidence intervals (CIs) using the product of coefficients for each path in the mediational chain.[5] We conducted the bootstrap using 5,000 random samples and interpreted our results using 95% CIs. Figure 2 presents the path coefficients, the indirect effect, the total effect, and CIs. We tested this model both with and without control variables, and similar results emerged. The model with controls is presented in Figure 2.

As shown in Figure 2, the indirect effect between economic conditions and job satisfaction through salience of alternatives was significant ($b = 0.12$, $SE = 0.05$, CI (0.04, 0.23), $p < 0.01$).[6] This provided support for Hypothesis 2.

Discussion

In Study 3, we experimentally manipulated, rather than measured, economic conditions. Consistent with Studies 1 and 2, we found that worse economic conditions were associated with greater job satisfaction. Respondents who read an article chronicling widespread joblessness reported greater job satisfaction than respondents who read an article referencing considerable job availability. Study 3 also provided

[5] Because bias-corrected bootstrap procedures could yield inflated empirical Type I error rates (Yzerbyt, Muller, Batailler, & Judd, 2018), we also conducted a mediation analysis using the joint-significance test. We first evaluated the indirect effects considering the joint significance of the components. We next computed the 95% CIs using the Monte Carlo sampling method with 5,000 iterations. As with our other mediational analysis, the indirect effect remained significant and the 95% Monte Carlo CI excluded 0.

[6] We tested for the possibility of an alternative mediational pathway in which job satisfaction was the mediator and the salience of alternatives was the dependent variables. Results showed the following indirect effect: $b = -0.11$ (0.06), CI (-0.257, 0.003), $p = .072$. Since the confidence interval includes 0 and the effect of the indirect effect is only marginally significant, the evidence for this mediational pathway is much weaker than the evidence for the proposed mediational pathway.

TABLE 5
Means, Standard Deviations, and Correlations, Study 3

Variable	*M*	*SD*	1	2	3	4	5	6
1. Bad economic conditions	0.50	0.05	—					
2. Job satisfaction	4.76	0.89	0.09	(0.75)				
3. Salience of alternatives	5.04	1.20	−0.12	−0.54	(0.85)			
4. Female	1.46	0.49	−0.07	−0.08	0.03	—		
5. Age	35.87	8.45	−0.01	−0.02	−0.12	−0.08	—	
6. Income	3.53	1.71	0.00	0.11	−0.01	−0.15	0.09	—
7. Tenure	14.33	4.80	0.02	0.02	−0.02	0.11	−0.26	−0.21

Note: Coefficient alphas are in parentheses where applicable.
$p < 0.05$ if $|r| > .08$, two-tailed

insight into why these effects emerged. People who believed that the economy was doing poorly reported that alternative possible jobs were less salient, which in turn led them to rate their own jobs as more satisfying.

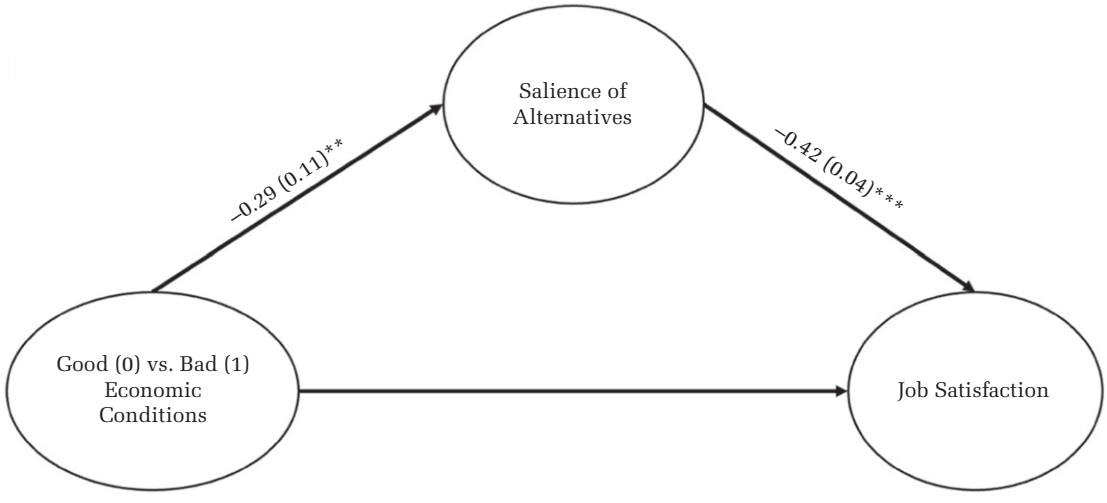
GENERAL DISCUSSION

Across three studies, we found that job satisfaction rose and fell with the economy. Similar results emerged using a large cross-sectional, cross-temporal study (Study 1), a longitudinal survey (Study 2), and an experimental study (Study 3). Study 2 also found that greater job satisfaction during recessions could not be explained by changes in the composition of the workforce during recessions. Indeed, Study 2 found that job satisfaction rose and fell with the economy, even among people who were continuously employed throughout the study. Finally, Study 3 found support for a psychological mediator of this effect. During bad economic times, alternative jobs were less salient, which in turn led to greater job satisfaction.

Theoretical Contributions

Our findings make several theoretical contributions to research on job satisfaction and to work examining how exogenous variables affect workplace life. First, our findings suggest that environmental conditions

FIGURE 2
Mediation Analysis, Study 3



Notes: Indirect effect: 0.12 (0.05)**, CI (0.04, 0.23); total effect: 0.18 (0.08)*, CI (0.03, 0.34).
* $p < .05$
** $p < .01$
*** $p < .001$

outside organizations can influence how people inside them perceive and evaluate their work. While past research has focused on conditions within the workplace, the current findings suggest that conditions outside of work can also affect how satisfied people are with their jobs (e.g., Grant, 2008; Hackman & Oldham, 1976; Judge et al., 2010). Indeed, scholars have long argued that organizational research would benefit from the greater inclusion of context (Johns, 2006; Kozlowski & Klein, 2000; Mowday & Sutton, 1993; Rousseau & Fried, 2001). Our findings highlight the importance of such inquiries.

Moreover, our findings build on and extend existing work suggesting that negative societal events can seep into work attitudes. First, while past work has focused on short-lived, highly salient events such as terrorist attacks or widely publicized cases of police brutality, our results suggest that more subtle, gradual, and less dramatic external conditions can also influence how people perceive and react to their jobs. Second, existing work has exclusively documented the negative effects of adverse societal events on workplace attitudes and behaviors, suggesting that difficult events can trigger disengagement or undermine employee morale (Leigh & Melwani, 2022; Mainiero & Gibson, 2003). Our findings indicate that in some circumstances, challenging external conditions can promote positive sense-making processes and ultimately bolster, rather than depress, workplace attitudes. In doing so, it highlights the complex and sometimes divergent effects that societal events can have on sense-making processes at work.

Our findings also suggest that affective reactions to recessions may be more nuanced than previously understood. Past work has found that life satisfaction declines during recessions (Di Tella et al., 2001; Wolfers, 2003), though these effects appear to be largely driven by people who lose their jobs (Boyce, Delaney, & Wood, 2018). *Post hoc* analyses in Studies 1 and 2 similarly found that life satisfaction fell with the economy even as job satisfaction rose. These divergent affective responses suggest that bad economic conditions do not prompt people to see all aspects of their lives more positively. Rather, these affective boosts seem to be limited to work.

Finally, these findings have implications for the oft-noted decrease in turnover during recessions. Past work has suggested that people are less likely to switch jobs during recessions, (Hom & Griffeth, 1995; Hom & Kinicki, 2001). While the limited job openings likely explain most of the drop in turnover, our findings suggest that more positive job attitudes may play a role as well. If people are more satisfied with their jobs during downturns, they may be less inclined to look for new ones.

While these results reveal a seemingly bright side of recessions for life at work, this tendency may not be entirely positive. On the one hand, greater job satisfaction during recessions could help people psychologically weather an otherwise challenging situation. On the other hand, organizations could use this tendency as an excuse to treat employees poorly during recessions. As such, workers may benefit from being particularly attuned to poor treatment when the economy falters.

Limitations and Future Directions

Our findings have several limitations, which also point to areas for future research. First, while we find that job satisfaction increases when unemployment rises, the magnitude of these effects is relatively small. One possible explanation for the relatively small effect sizes is that countervailing forces may depress job satisfaction during downturns at the same time that the psychological processes we identify seem to elevate it. Indeed, recessions increase workplace stress and job insecurity (e.g., Burgard, Kalousova, & Seefeldt, 2012; Houdmont, Kerr, & Addley, 2012), both of which decrease job satisfaction (e.g., Ashford, Lee, & Bobko, 1989; Cavanaugh, Boswell, Roehling, & Boudreau, 2000). Thus, it seems likely that some of the positive sense-making processes we document are offset by greater stress and job insecurity during recessions. Future research could capture these competing forces simultaneously and explore when and how the factors elevating satisfaction outweigh the forces pulling it down.

Future work could also examine whether these effects are moderated by personality or demographic characteristics. Indeed, past work calling for the greater inclusion of context in organizational behavior research has suggested that contextual features can have main effects while also interacting with individual-level variables (Johns, 2006). Given that recessions tend to be unevenly experienced across different groups (e.g., Chattopadhyay & Bianchi, 2021; Hoynes, Miller, & Schaller, 2012), such interactions may be particularly relevant in this context. For instance, recessions tend to disproportionately affect low-wage workers, who rarely have the financial ability to withstand even temporary spells of unemployment (Hoynes et al., 2012). For these workers, the negative affective consequences of financial stress may outweigh any affective benefits of motivated reasoning. Similarly, personality

differences in the ability to handle uncertainty and unpredictability might also moderate affective responses to recessions. People with a greater need for cognitive closure, for instance, might have more trouble navigating the uncertainty of recessions. For them, the incumbent stress may swamp any benefits.

Follow-up work could also consider other psychological processes that might account for the relationship between economic conditions and job satisfaction. For instance, recessions may temper expectations for one's job or elicit gratitude for having a job when many people do not, both of which are likely to evoke positive affective evaluations. Moreover, future work could explore why alternatives tend to undermine satisfaction. While considerable work has documented the affective costs of alternatives, relatively little is known about why alternatives reduce satisfaction. One possibility is that alternatives prompt people to evaluate their jobs against higher and more affectively challenging standards. Future work could test this possibility by examining whether people hold higher expectations for their jobs during booms. Another possibility is that alternatives trigger comparisons, which make the negative features of a job more salient. Follow-up studies could test this possibility by looking at whether people are more likely to attend to the negative components of their jobs when alternatives are plentiful. Elucidating these processes could suggest ways to mitigate the affective costs of alternatives. Given that alternatives increase the chances of securing a job that matches one's interests, needs, and skills, employees may benefit from identifying ways to leverage the advantages of alternatives without being weighed down by their costs.

Practical Implications

Our findings also have practical implications for organizations and managers. For one, they provide empirical evidence that societal conditions affect how people experience and react to their work environment. This is particularly noteworthy given that organizations often ignore societal events or conditions (Leigh & Melwani, 2022; Mainiero & Gibson, 2003). Our findings indicate that organizations may benefit from acknowledging and addressing them. Indeed, recent research has suggested that offering employees a venue for discussing salient events at work (e.g., racial injustice, vitriol against immigrants) can mitigate these events' negative effects (Leigh & Melwani, 2022). Organizations may also be able to amplify the positive effects of exogenous events or conditions. If forces such as job insecurity and increased stress during recessions dampen the positive sense-making effects we document, then organizations that address these issues may be able to offset their deleterious effects. As a result, they may be able to elicit even greater job satisfaction during downturns.

Organizations may also benefit from recognizing the unexpected goodwill they appear to receive from employees during downturns. Employers may believe it is futile to try to bolster job satisfaction during recessions, given likely constraints on firms' ability to offer financial rewards or even optimal working conditions. Our results suggest that efforts to increase satisfaction may be well-received during these times, as employees seem to be driven to view their workplace favorably. Our findings also point to the value of hiring during bad economic times if organizations have the resources to do so. Employees who begin a job during a recession may be more prone to seeing that job favorably and rating it as more satisfying. Given that job satisfaction tends to decline after a short honeymoon period (e.g., Boswell, Boudreau, & Tichy, 2005), starting at a higher satisfaction level may yield long-term benefits for organizations and individuals.

These findings also suggest that organizations could benefit from being more attentive to job satisfaction during good economic times. In prosperous times, organizations may believe that greater job security and more generous financial rewards are enough to satisfy employees. Yet our findings suggest that during good economic times, other possible jobs are likely to be particularly salient and affectively costly. Given that it is easier to leave a job during a boom, (Carsten & Spector, 1987; Trevor, 2001), the costs of dissatisfaction may be particularly high at the same time that satisfaction falters.

CONCLUSION

Organizations are constantly changing with the economy. Our findings suggest that the people within them are changing with the economy as well. While economic downturns negatively affect many aspects of working life, they appear to foster beneficial ways of thinking about and evaluating jobs.

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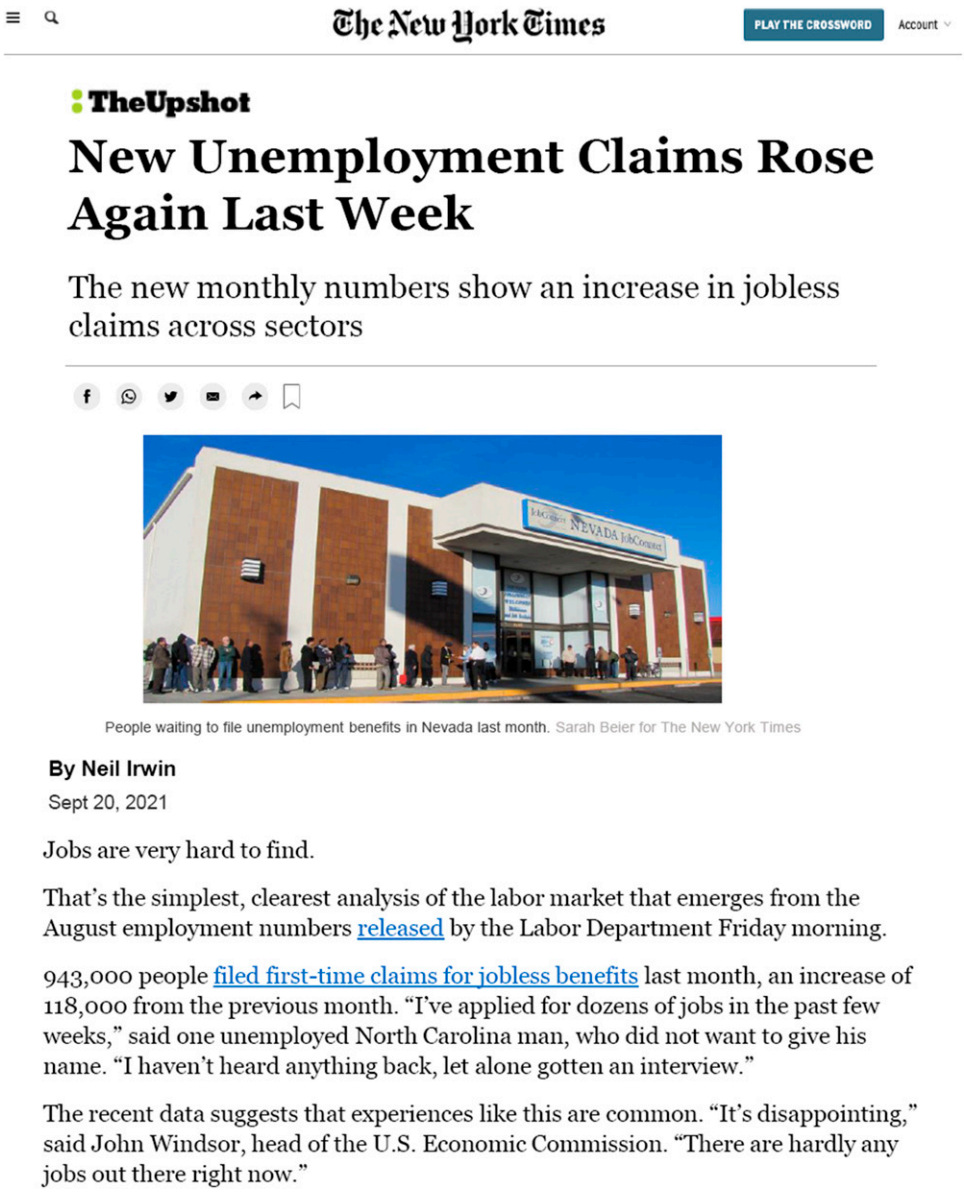
APPENDIX A

EXPERIMENTAL MANIPULATIONS IN STUDY 3

Bad Economy Condition



The New York Times

PLAY THE CROSSWORD Account

TheUpshot

New Unemployment Claims Rose Again Last Week

The new monthly numbers show an increase in jobless claims across sectors

People waiting to file unemployment benefits in Nevada last month. Sarah Beier for The New York Times

By Neil Irwin

Sept 20, 2021

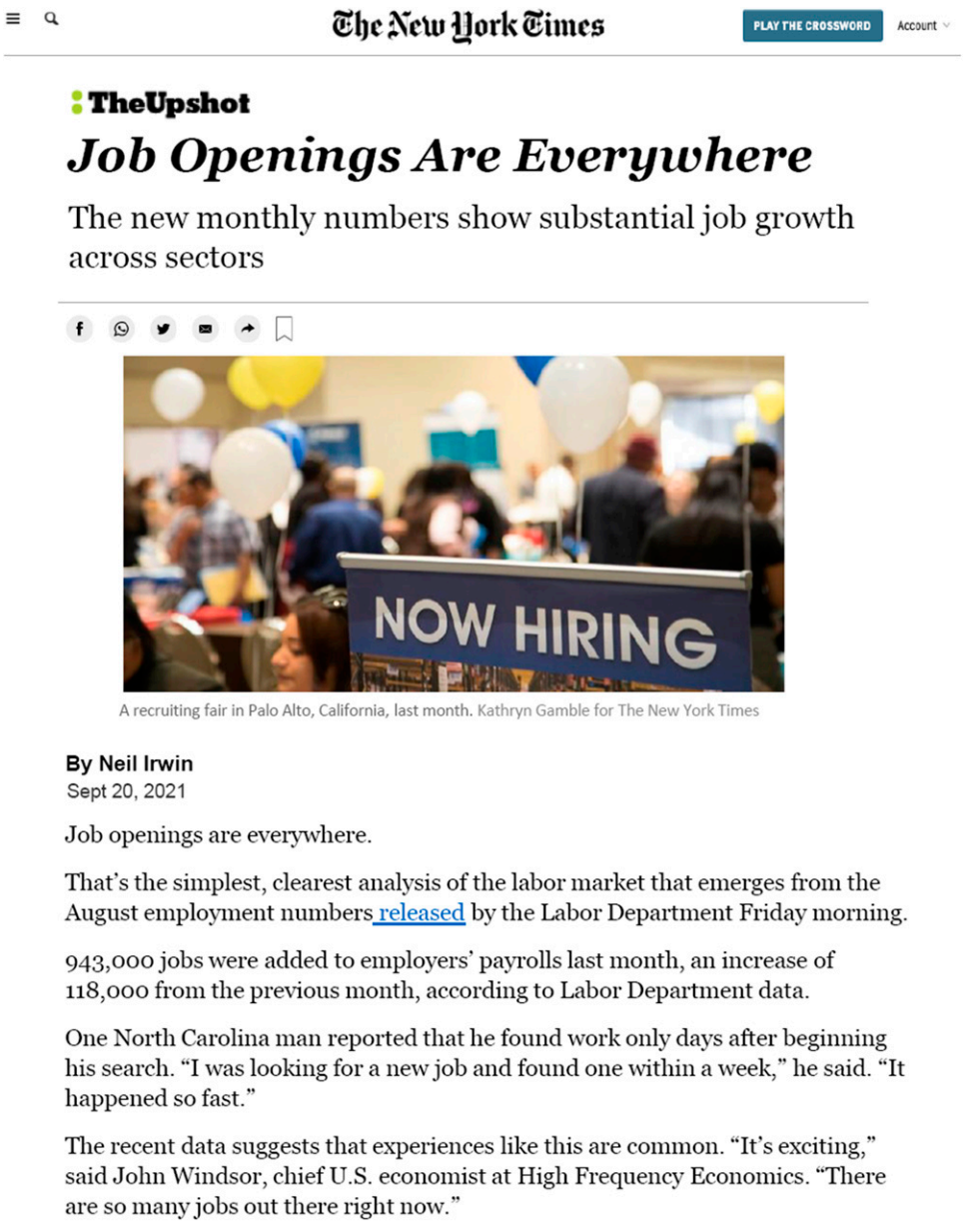
Jobs are very hard to find.

That's the simplest, clearest analysis of the labor market that emerges from the August employment numbers released by the Labor Department Friday morning.

943,000 people filed first-time claims for jobless benefits last month, an increase of 118,000 from the previous month. "I've applied for dozens of jobs in the past few weeks," said one unemployed North Carolina man, who did not want to give his name. "I haven't heard anything back, let alone gotten an interview."

The recent data suggests that experiences like this are common. "It's disappointing," said John Windsor, head of the U.S. Economic Commission. "There are hardly any jobs out there right now."

Good Economy Condition



The New York Times

PLAY THE CROSSWORD Account

TheUpshot

Job Openings Are Everywhere

The new monthly numbers show substantial job growth across sectors

A recruiting fair in Palo Alto, California, last month. Kathryn Gamble for The New York Times

By Neil Irwin
Sept 20, 2021

Job openings are everywhere.

That's the simplest, clearest analysis of the labor market that emerges from the August employment numbers released by the Labor Department Friday morning.

943,000 jobs were added to employers' payrolls last month, an increase of 118,000 from the previous month, according to Labor Department data.

One North Carolina man reported that he found work only days after beginning his search. "I was looking for a new job and found one within a week," he said. "It happened so fast."

The recent data suggests that experiences like this are common. "It's exciting," said John Windsor, chief U.S. economist at High Frequency Economics. "There are so many jobs out there right now."

APPENDIX B

ADAPTED ALTERNATIVES MEASURE USED IN STUDY 3

Salience of Alternatives (Adapted from Miller, 1997)

1) I often think about other job opportunities
2) I think about interviewing for other jobs without telling my current employer
3) I'm interested in exploring other job opportunities
4) I plan to talk to other employers without telling my current employer
5) I rarely think about other job opportunities (reverse scored)