

Singapore Management University

## Institutional Knowledge at Singapore Management University

---

Research Collection Lee Kong Chian School Of Business

Lee Kong Chian School of Business

---

7-2020

### Individuals responses to economic cycles: Organizational relevance and a multilevel theoretical integration

Nina SIROLA

Singapore Management University, [nsirola@smu.edu.sg](mailto:nsirola@smu.edu.sg)

Follow this and additional works at: [https://ink.library.smu.edu.sg/lkcsb\\_research](https://ink.library.smu.edu.sg/lkcsb_research)



Part of the [Industrial Organization Commons](#), and the [Organizational Behavior and Theory Commons](#)

---

#### Citation

SIROLA, Nina. Individuals responses to economic cycles: Organizational relevance and a multilevel theoretical integration. (2020). *Academy of Management Annals*. 14, (2), 451-473. Research Collection Lee Kong Chian School Of Business.

Available at: [https://ink.library.smu.edu.sg/lkcsb\\_research/6531](https://ink.library.smu.edu.sg/lkcsb_research/6531)

This Journal Article is brought to you for free and open access by the Lee Kong Chian School of Business at Institutional Knowledge at Singapore Management University. It has been accepted for inclusion in Research Collection Lee Kong Chian School Of Business by an authorized administrator of Institutional Knowledge at Singapore Management University. For more information, please email [cherylds@smu.edu.sg](mailto:cherylds@smu.edu.sg).

**INDIVIDUALS' RESPONSES TO ECONOMIC CYCLES: ORGANIZATIONAL  
RELEVANCE AND A MULTILEVEL THEORETICAL INTEGRATION**

**Nina Sirola**

*Singapore Management University*

*Academy of Management Annals In-Press*

Published Online: 24 Feb 2020

<https://doi.org/10.5465/annals.2018.0124>

Author Note

Correspondence to: Nina Sirola, Organisational Behaviour & Human Resources, Singapore Management University, Lee Kong Chian School of Business, 50 Stamford Road, Singapore 178899; email: [nsirola@smu.edu.sg](mailto:nsirola@smu.edu.sg).

**ABSTRACT**

The state of the economy represents a concern for individuals and shapes their behavior in profound ways. The current review of studies on how individuals respond to economic cycles reveals that organizational relevance of such responses has often not been considered, and the literature is characterized by a variety of seemingly disconnected explanations for how and why individuals respond to the perceived state of the economy. I develop a theoretical framework that systematizes the literature and accounts for the seemingly disparate findings, highlighting the underlying functionality of such responses for individuals. I then integrate the literature on individual responses to economic cycles with organizational research to examine the meaning of different individual responses from the perspective of organizational functioning. This integration generates a novel insight that individually functional responses to economic cycles can be dysfunctional from the perspective of organizations, often hindering rather than helping organizations' performance and undermining the wellbeing of other organizational members. The systematization of the literature also reveals that many responses which would be predicted by the identified theoretical processes and which would be also relevant to organizations have not been studied, laying an agenda for future organizational research.

*Keywords:* economic cycles, individual responses, impact on organizations, multilevel theory.

## **INDIVIDUALS' RESPONSES TO ECONOMIC CYCLES: ORGANIZATIONAL RELEVANCE AND A MULTILEVEL THEORETICAL INTEGRATION**

Individual employees are exposed to constant changes in the state of the economy, or economic cycles. Over the last century and a half, the U.S. economy on average fluctuated between economic downturns and upturns roughly every five years (National Bureau of Economic Research, 2011). Individuals tend to be actively informed about such changes in the state of the economy. Even general newspapers dedicate a great deal of their content to discussing the state of the economy. News channels on televisions in public spaces as well as preinstalled smartphones applications provide instantaneous updates regarding the performance of the stock market. The state of the economy shapes people's livelihood and thus represents a concern for employees (Bureau of Labor Statistics, 2012; Eurofund, 2009), who adjust their behavior in response to economic cycles. For example, cues the economy might be entering a downturn have an immediate impact on individual risk-taking propensity (Griskevicius et al., 2013), willingness to help coworkers (Sirola & Pitesa, 2017a), and attitudes toward racial outgroups (Bianchi, Hall, & Lee, 2018).

This is the first systematic review of studies on how individuals respond to changes in the state of the economy. A comprehensive literature search located over hundred and thirty articles documenting how individual workers respond to economic cycles. A review of this body of work reveals that organizational relevance of individual responses to economic cycles has often not been considered, and the literature is characterized by a variety of seemingly disconnected explanations for how and why individuals respond to perceived state of the economy. I develop a theoretical framework that systematizes the literature and accounts for the seemingly disparate findings. I then integrate the literature on individual responses to economic cycles with organizational research to examine the meaning of the

different individual responses from the perspective of organizational functioning. The key insight emerging from the current review is that, while past research interpreted individual responses to economic cycles as functional for the individual, considering evidence of how these responses impact organizations and economic systems reveals that the same individual responses are often *dysfunctional* for organizations and broader economic units.

Thus, the current theoretical integration generates a novel insight that individuals often react to economic cycles in ways that can hinder rather than help their organization's performance and undermine the wellbeing of other individuals in the organization. To appreciate the importance of this insight, consider the case of bank runs as an illustrative parallel. Upon learning that the economy *might* be entering a recession, individuals sometimes fear for the stability of the banking system and engage in the individually functional response of withdrawing funds. However, the same individually functional response can be dysfunctional from the perspective of higher-level economic units, causing the self-fulfilling prophecy that destabilizes the banking system and the economy (Brown, Trautmann, & Vlahu, 2016). Knowing about such reactions to economic cycles that are functional individually but dysfunctional from the perspective of the economy as a whole allows policymakers to introduce systems to minimize or prevent problems that might otherwise occur. Similarly, understanding when individuals engage in behaviors that hinder rather than help their *organizations'* functioning is relevant for the ultimate ability of organizational leaders to effectively manage their workforce across economic cycles.

I argue that the importance of individual responses to economic cycles has not been sufficiently appreciated in management research due to a micro-macro divide whereby models of individual behavior tend to be devoid of factors operating at the level of industries and economies (Bamberger, 2008; Buckley, Hamdani, Klotz, & Valcea, 2011). The current review, highlighting that individual responses to economic cycles can have a profound impact

on organizational functioning, serves as a call for management research and practice to bridge this micro-macro divide. The unifying theoretical framework developed in the current review provides a blueprint for accomplishing that. Specifically, the framework provides a theoretical systematization of the literature in terms of key psychological processes that guide individuals in their responses to economic cycles, and as such reveals which potentially organizationally relevant responses that would be predicted by the identified theoretical processes have *not been* studied, providing an agenda for future organizational research. Figure 1 summarizes these theoretical developments and provides a blueprint for the paper.

The paper is organized as follows. I first define individual responses to economic cycles through a multilevel framework and clarify the relationship between research on individual responses to economic cycles and related bodies of organizational research. The subsequent section details the logic and procedure of the literature search based on the definition of the literature, provides an overview of the relevant body of work, and develops a unifying theoretical framework to account for the observed empirical results. I then provide a re-assessment of the literature from the perspective of *organizational* functioning (as opposed to individual, which has been the focus of most past work). The final section lays an agenda for future organizational research based on the developed theoretical framework and a consideration of the potential managerial relevance of the various individual responses to economic cycles that likely exist but have not been documented thus far.

### **MULTILEVEL LITERATURE DEFINITION**

To define economic cycles, or alternate periods of downturns or recessions and upturns or expansions, I adopt the definition of recessions versus expansions by the National Bureau of Economic Research (2010):

*A recession is a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income,*

*employment, industrial production, and wholesale-retail sales. A recession begins just after the economy reaches a peak of activity and ends as the economy reaches its trough. Between trough and peak, the economy is in an expansion.*

Thus, economic cycles concern changes in the state or performance of the entire economic system, usually lasting at least six months (the "two-quarter rule;" National Bureau of Economic Research, 2015). From a multilevel perspective, the state of the economy can be thought of as *performance*, conceptually positioned at the level of the economic system. The construct of economic performance can either be thought of as a "global" or objective construct (akin to firm profit or firm number of employees) or a configural construct, emerging from a combination of characteristics or actions of underlying entities (akin to social network density, which emerges from the underlying configuration) (Kozlowski & Klein, 2000). The latter way of conceptualizing performance is more informative for thinking and theorizing about antecedents of performance (e.g., whether performance is additive or requires coordination and thus emerges through an interplay among underlying elements). However, given the focus of the current review on examining *outcomes* rather than antecedents of economy-level performance, it is more useful to conceptualize economy-level performance as a global construct, focusing on whether the objective output of an economic system rises or falls. The reason is that an individual may respond to news of an economic downturn while having no understanding of the underlying configural processes that cause an economy to be in a downturn versus an upturn.

Higher-level constructs impact individual behavior through individual perception, and the objective features of the construct can vary from how the construct is perceived or understood by individuals. Take the example of firm performance (e.g., last year's firm profit)—there is an objectively correct answer to whether the firm was doing well or not, but employees within the firm might vary in how they perceive firm-level performance, and

many employees might not know exactly how much profit their own firm is generating. In a similar vein, while there is an objective state of the economy, its direct effects on individuals operate through the perception of state of the economy, and the two are not always perfectly aligned (e.g., most people might have just a rough idea of how the economy is doing).

Kozlowski and Klein (2000: 10) summarize this point by noting that perception mediates “the linkage between contextual factors at higher levels [...] and individual-level outcomes.”

The reason why people would attend and respond to perceived state of the economy is that the availability of the resources in the environment is and has historically been a major factor determining the ease with which people are able to attain valued outcomes. Perceived prospects of an economic upturn may result in optimism regarding availability of resources in the environment, while perceived prospects of an economic downturn have the opposite effect (Bianchi, 2016; Shiller, 2000). Much organizational research has been dedicated to understanding how concerns about the performance at the level of one’s *organization* and one’s *job* impact individual attitudes and behavior, by focusing on the mediating mechanism of experienced job insecurity, or the “perceived threat of losing the current job in the near future” (Vander Elst, De Cuyper, Baillien, Niesen, & De Witte, 2016). It is useful to define how research on individual reactions to economic cycles (driven by optimism versus pessimism about economy-level performance) relates to and differs from the job insecurity literature (focused on reactions driven by optimism versus pessimism about performance of one’s organization and potential prospects of one’s job loss).

Research on individual reactions to perceived state of the economy differs from the extant organizational job insecurity literature because the primary focus of the latter body of work has been on documenting the various possible antecedents of the psychological experience of job insecurity, mostly at levels below the level of the economy (e.g., part-time versus full-time work contract, union membership, technological change, etc.). Direct effects



of economic cycles received virtually no attention in this line of work, and the state of the economy has only been discussed (to a rather limited extent) as a potential moderator of the effects of insecurity driven by organization-level and job-level issues (Keim, Landis, Pierce, & Earnest, 2014). In terms of individual *consequences* examined, job insecurity research mostly focused on attitudes toward the organization (Sverke, Hellgren, & Näswall, 2002), and examined a much narrower set of psychological and behavioral outcomes than the ones examined in research on individual responses to economic cycles. For example, job insecurity research has not considered such important consequences as racial and gender discrimination, parenthood timing decisions, or personality change. Yet, each of these consequences have been shown to be impacted in studies on employees' reactions to economic cycles (see Table 1 for various examples of outcomes not examined in job insecurity research).

More importantly, because the literature has primarily conceptualized the experience of job insecurity by focusing on antecedents residing at levels below the economy-level (e.g., organizational or job conditions, as illustrated by examples above), individual perceptions concerning the state of the economy are often associated with different outcomes than outcomes documented in job insecurity research. For example, perhaps the main finding in the job insecurity literature is that employee commitment to the organization declines when employees feel insecure (Cheng & Chan, 2008; Sverke et al., 2002). However, when the entire *economy* is in a crisis, employees become *less* critical of their organization because economic downturns undermine employment prospects in the entire labor market (Proudfoot, Kay, & Mann, 2015). In fact, recessions have been found to *boost* job satisfaction and this effect has even been shown to persist over time (Bianchi, 2013). This means that there is not one unitary construct of job concerns or job insecurity in terms of how it guides individual behavior. Rather, outcomes of resource-related concerns depend on the level at which

antecedents of such concerns reside, and concerns about the economy as a whole can have various unique outcomes beyond those documented by micro-level research on job insecurity, as well as cause different effects even with respect to the limited number of outcomes that were studied in the (largely antecedent- as opposed to consequences-oriented) literature on job insecurity. That effects of a construct can vary depending on the level of the construct (e.g., firm versus economy-level performance) is one of the key insights of the multilevel perspective (Klein & Kozlowski, 2000).

Thus, the current review focuses on studies that theorize effects of *economic cycles* on individuals. These effects may be direct and often immediate (as in the case of a bank run mentioned earlier). They may in practice also be partly transmitted through intermediary levels, such as dynamics within one's organization, one's team, and one's job conditions. The review focuses on all such relevant consequences of economic cycles, as long as they clearly stem from the economy-level variation in performance, as opposed to being driven by factors residing at intermediary levels alone and conceptually devoid of influences stemming from the state of the economy (as in the case of job insecurity research). Finally, my focus is on work, organizations, and economic processes, and thus outcomes meaningfully relevant to these domains.

### **LITERATURE SEARCH, ASSESSMENT, AND THEORETICAL SYSTEMATIZATION**

Guided by the multilevel definition of the literature outlined above, I conducted a comprehensive literature search of studies on how economic cycles impact individuals. My strategy was to cast a wide net and see what has and has not been done on how individuals react to economic cycles. Given the role of individual perception in how the objective state of the economy shapes individual behavior, discussed above, some research treated the state of the economy as a global or objective entity, and used objective economic indicators to predict

variation in individual attitudes or behavior across economic environments (e.g., Bianchi, 2013; Hill, Rodeheffer, Griskevicius, Durante, & White, 2012; Sirola & Pitesa, 2017a). The other key methodology was to manipulate the ostensible state of the economy and observe how people respond (e.g., Griskevicius et al., 2013; Proudfoot, Kay, & Mann, 2015; Sirola & Pitesa, 2017b). Each approach has limitations (in terms of internal versus external validity, respectively) but each can be informative and shed light on how individuals respond to economic cycles. The review thus includes both types of studies.

The literature search yielded over a hundred and thirty relevant articles. I organized past findings by classifying the studies as concerning issues of either work performance or welfare, which was useful to ensure a comprehensive view of the phenomenon from the perspective of organizations and economic agents. I further classified the studies as focusing on issues for the focal person stemming from either own behavior or third-party treatment. Doing so was useful to help point to areas for potential managerial interventions by clarifying whether such interventions need to target individual behavior (e.g., through individual training) or interactions (e.g., by regulating interaction norms or procedures). The discussion section returns to these potential implications for future research. Table 1 contains key sample articles organized in this manner, and the reference list includes all identified articles, marked by an asterisk sign.

I next sought to systematize past findings theoretically and in terms of their underlying assumptions and substantive insights. I examined explicit or implicit assumptions pertaining to construct definitions and searched for commonalities in the theoretical process described and tested in the reviewed papers. The systematization of the different processes underlying individual responses to economic cycles has been conducted through a detailed reading of the literature and coding of the findings from the perspective of psychological goals or motives argued to be driving the relevant individual response.

This exercise revealed that, although papers on direct effects of economic cycles on individuals draw on various theories, their arguments all share in common the idea that individuals respond to a perception that resources in the environment are likely to be abundant versus scarce in ways that are in some ways functional for the individual. Specifically, because it is adaptive to adjust one's behavior to most effectively cope with resource availability in the environment, many if not most findings can be accounted by a higher-level theoretical formulation whereby people are expected to more strongly strive to secure valued economic outcomes in more difficult economic conditions. This formulation encompasses a family of more specific theories that model not just immediate individual-level utility maximization, but also consider temporal as well as social dimensions of such functional responses. Specifically, I systematized the specific arguments as describing 1) self-protection responses (immediate and individually-relevant responses to the environment), 2) life history responses (conceptually incorporating a temporal and developmental component of functional responses to the environment), and 3) outgroup resource competition responses (conceptually incorporating a the role of salient, mostly demographic, social categories in individual functional responses to the environment). Below, I provide a short overview of each, along with key representative articles that at the same time help illustrating the key empirical approaches employed in this body of work.

### **Self-protection**

One set of papers examined individuals' relatively immediate responses to perceived state of the economy, with most arguments being based on some form of individual-level utility-maximization rationale. For example, Fisman, Jakiela, and Kariv (2015) simulated a recessionary environment in a lab experiment and found that subjects who were exposed to a recession-like environment (compared to a control group) distributed resources more selfishly in an economic (dictator) game. Roux, Goldsmith and Bonezzi (2015: 615) showed

that inducing the idea that resources in the environment are scarce boosted tendency to maximize material self-interest, finding that “this tendency can manifest in behaviors that appear selfish, but also in behaviors that appear generous, in conditions where generosity allows for personal gains.”

Responses examined extend beyond decisions regarding resource allocations and include various additional organizationally-relevant behaviors. Papers by Proudfoot et al., (2015) and Bianchi (2013) mentioned earlier can be interpreted through this lens as well. Both are consistent with the idea that, due to fewer job opportunities during difficult economic times, people adjust their standards to preserve their current employment for self-protective reasons. Conversely, when economic conditions are favorable, people become less risk averse and concerned about own career implications, as evidenced by the fact that they become more willing to deviate from social and organizational norms of acceptable behavior (Bianchi & Mohliver, 2016).

Many papers document various negative and psychological and emotional consequences of difficult economic times, for example higher levels of stress and negative affect (Fenwick & Tausig, 1994; Giorgi, Shoss, & Leon-Perez, 2015; Houdmont, Kerr, & Addley, 2012; Pinguart, Silbereisen, & Körner, 2009). Even such responses can be understood from an individual self-protection standpoint. Evolutionary psychology investigated why humans evolved in a way that makes them ever experience depressed mood and similar negative psychological states, despite the fact that they are uncomfortable and undesirable from a quality of subjective experience standpoint. This line of work suggests that stress and dissatisfaction can be seen as a personally functional threat-management response, as they put people in a state in which they are better prepared to cope with threats in the environment, as opposed to being relaxed and optimistic (Allen & Badcock, 2003; Andrews & Thomson Jr, 2009; Frijda, 1986; Nettle & Bateson, 2012). In a similar vein,

higher levels of negative affect and stress during more difficult times can be understood as a functional adaptation to the environment.

Functional individual responses to perceived state of the economy can also operate by shaping how people construe and approach their reality. In psychology, this phenomenon is sometimes referred to as “functional projection,” reflecting the notion that in response to certain threats, people start paying attention to relevant potentially harmful aspects of the environment. For example, Maner et al. (2005: 63) found that inducing physical self-protection goals (i.e., inducing fear for one’s physical wellbeing) “lead to the perception of functionally relevant emotional expressions in goal-relevant social targets. Activating a self-protection goal led participants to perceive greater anger in Black male faces (Study 1) and Arab faces (Study 2), both out-groups heuristically associated with physical threat.” The logic of this response is that interpreting ambiguous stimuli in a more conservative (i.e., pessimistic) manner is functional when the situation signals that costs of ignoring such threats are relatively higher.

In a similar manner, Sirola & Pitesa (2017a) studied situations in which employees interpret everyday situations in which co-workers need help, and found that exposure to cues of a downturn make people more likely to assume that providing help might come at the expense of own success. Helping co-workers generally does not come at the one’s own expense, but sometimes it does (Bolino, Klotz, Turnley, & Harvey, 2013). For that reason, career concerns induced by cues of a downturn may lead people to err on the side of self-protective caution in whether they decide to help coworkers. The studies found that “even when the situation offering an opportunity to help is the same, a salient zero-sum construal of success,” which was found to be more pronounced in response to cues of economic downturns, will “reduce an employee’s tendency to help others” (Sirola & Pitesa, 2017a: 1340).

**Life history**

The second large group of papers on individual responses to the state of the economy model individual behavior by considering the temporal component of individuals' functional responses to the state of the economy. Individuals are assumed to respond to economic conditions in a functional way not just in the given moment, but also in the form of habits and long-term strategies. A notable example of this line of thinking is life history theory, which suggests that economic conditions during one's formative years shape how people cope with economic uncertainty later in life (see Kaplan & Gangestad, 2005, for a review). Economic conditions experienced earlier in life are argued to shape habits and tendencies later on, most notably in terms of how people cope with variation in uncertainty introduced by adverse economic conditions.

For individuals in harsher economic conditions, it is functional to adopt a shorter time horizon, given the objectively lower level of predictability and control they have over their future. Conversely, for individuals in relatively resource-abundant contexts, it makes more sense to focus and invest in the future, as their future is more likely and more controllable. These different *fast* and *slow* strategies of coping with environmental economic conditions display a certain extent of temporal stability, impacting how individuals cope with future variation in economic conditions. As one demonstration of this idea, Griskevicius et al. (2013) had participants "read a newspaper article ostensibly printed in the New York Times about the current economic downturn (titled "Worst Economic Crisis Since '30s with No End in Sight")" (see Hill et al., 2012: 150) versus an article on an unrelated topic. Griskevicius et al. (2013: 197) found that, in response to cues of an economic downturn (compared to control), "people who grew up in lower-SES environments were more impulsive, took more risks, and approached temptations more quickly. Conversely, people who grew up in higher-

SES environments were less impulsive, took fewer risks, and approached temptations more slowly” (SES refers to socioeconomic status).

This perspective explains why people who grew up in worse economic conditions have children younger (Belsky, Steinberg, & Draper, 1991), save less (Griskevicius et al., 2013), and fail to purchase health insurance (Mittal & Griskevicius, 2016), even controlling for current resources. These and many other important personal and social behaviors reflect a fundamental tradeoff between investing in the future versus focusing on the present. Given that these are learned strategies for coping with perceived scarcity of resources in the environment, all such effects are more pronounced when people are exposed to economic uncertainty (Griskevicius et al., 2013; Mittal & Griskevicius, 2016). Each of these behaviors has clear implications for organizations and careers: parenthood timing impacts when and whether employees can contribute to the organization and thus their career trajectories (Miller, 2011), employee personal savings shape their ability to deal with various challenges relevant to their work and careers (Leana & Meuris, 2015), and the same is true of employees health-related decisions (Manning, Jackson, & Fusilier, 1996).

Beyond the present versus future tradeoff underlying the life history theory, personality research also suggests that people’s relatively stable individual characteristics are partly shaped by economic conditions in a way that is functional to the individual. Most notably, Bianchi (2016) found that worse economic conditions make people more collectivistic in the long run, given that sociality and social support are relatively more important and functional during difficult economic conditions (Varnum, Grossmann, Kitayama, & Nisbett, 2010). Similar logic can explain why worse economic conditions prompt people to display lower levels of narcissism in the long term (Bianchi, 2014). Narcissism entails highly inflated self-views, which can be subjectively pleasing, but often come at a high social cost (Baumeister & Vohs, 2001), a bargain that is more risky when the



economy is performing poorly and when reliance on others is more important. In summary, functional strategies people adopt in response to the state of the economy seem to display some degree of temporal stability and drive individual behavior in predictable and consequential ways over time.

### **Realistic group conflict**

The third distinct and large group of papers on individual responses to the state of the economy conceptually incorporates the fact that human behavior fundamentally occurs in the context of salient (mostly demographic) social categories. Numerous studies in social psychology find that people construe themselves as part of groups with almost surprising fluency, and that group membership is often a basis of not just affiliation and support, but also conflict over limited resources (Campbell, 1965; Sherif, Harvey, White, Hood, & Sherif, 1961; Sherif & Sherif, 1953; Tajfel, 1982; Tajfel & Turner, 1979). Realistic group conflict theory, underlying most of this work, can be seen as an extension of the idea that individuals respond to perceived scarcity of resources in functional ways, but with a focus on the context of salient (mostly demographic) social categories.

This perspective has guided various papers arguing that economic downturns amplify prejudice, discrimination, and social conflict. This perspective thus assumes utility maximizing behavior whereby individuals adapt to the state of the economy in terms of how they treat their in-group members (e.g., people of the same race as themselves) versus out-group members (e.g., people of a different race) to most effectively leverage resource abundance or cope with resource scarcity. During times of abundance, people might refrain from intergroup conflict as it can represent a source of unnecessary personal risk, but during more difficult economic times, self-interest might be better served by competing with out-groups as a means of protecting or advancing own economic outcomes.

The idea that the state of the economy makes people more averse to outgroup members received initial testing when scientists examined whether lynching incidents in relation to black people (typically by whites) are more common when local economic conditions worsen in the U.S., finding some albeit weak support for the notion (Dollard, Miller, Doob, Mowrer, & Sears, 1939; Hovland & Sears, 1940; Miller, 1941). The idea has since been refined and tested in various other contexts, including in relation to other racial groups as well as other social categories. In support of the explanation that intergroup conflict represents a personally functional response to difficult economic conditions, research finds that negative responses to outgroup members in adverse economic conditions are the most pronounced with respect to those out-groups that are most economically threatening. For example, Butz & Yogeewaran (2011: 22) found that “economic threat heightened prejudice against Asian Americans, but not Black Americans, an ethnic group whose stereotype does not imply a threat to economic resources.”

Studies also found that worse economic conditions prompt people to pursue self-interest by competing with members belonging to other age groups (Mulders, Henkens, Liu, Schippers, & Wang, 2018; Ospina, Cleveland, & Gibbons, 2019). Age is considered to be one of the primary or primitive social categories, “which the mind encodes in an automatic and mandatory fashion (i.e., across all social contexts and with equal strength)” (Kurzban, Tooby, & Cosmides, 2001: 15387). Nevertheless, age is also a unique category in the sense that most people at some point in their lives become members of different age categories. One would thus imagine that treatment of people of different age groups would entail more perspective taking and less outgroup competition, compared to treatment of other out-groups. As such, it is a rather powerful demonstration of the strength with which economy shapes individual psychology and promotes intergroup competition, that it makes people more negative toward members of different age groups (Mulders, Henkens, Liu, Schippers, &

Wang, 2018; Ospina, Cleveland, & Gibbons, 2019), to which they at some point in their lives also either belonged or will belong.

Another primary social category is gender, and it represents a case whereby individually functional responses to economic cycles have multifaceted effects. Men have historically dominated high-status economic positions (Eagly, 1987), and thus the entrance of women into the workforce can be experienced as a threat by many men, a notion that underlies key models of harassment of women at work (e.g., McLaughlin, Uggen, & Blackstone, 2012). Accordingly, the motivation among male workers to compete against and undermine women is more pronounced when economic conditions are more competitive (Folbre, 2009; Wiesner-Hanks, 2011).

At the same time, women are seen as possessing certain qualities that can be of particular use to at least some economic agents during economic downturns. Most notably, women are sometimes seen as possessing a more crisis-appropriate leadership style, being more effective at managing crisis-related concerns among subordinates (Ryan, Haslam, Hersby, & Bongiorno, 2011). Appointing a woman to a leadership position may also signal commitment to change in the strategic direction of the organization through a replacement of the incumbent (typically male) leader with a leader differing in terms of a salient social category (Bruckmüller, Ryan, Rink, & Haslam, 2014). In line with this argument, Ryan & Haslam (2005: 81) found that “during a period of overall stock-market decline those companies who appointed women to their boards were more likely to have experienced consistently bad performance in the preceding five months than those who appointed men. These results expose an additional, largely invisible, hurdle that women need to overcome in the workplace.”

Both these effects—negative reactions to economic threat posed by female workers (and particularly in conditions in which jobs are relatively scarcer), as well as preferences for

female leaders during adverse economic conditions, can be understood through the same overarching logic of individually functional responses to economic cycles. Crucially, one needs to consider differences in the motives of the relevant actors involved. Workers who are personally threatened by the entrance of women into the workforce display more negative reactions so as to reduce potential risk to their own career prospects and valued outcomes. Conversely, those appointing leaders (e.g., business owners) maximize their own objectives by trying to optimize firm leadership effectiveness during economic downturns.

### **LITERATURE RE-ASSESSMENT FROM THE PERSPECTIVE OF ORGANIZATIONAL FUNCTIONING**

Despite the various important documented outcomes in studies on direct individual responses to economic cycles, these results have often not been discussed from the perspective of *organizations*. I next adopt an organizational perspective to point to potential areas of concern for organizations and areas which warrant additional organizational research. As noted earlier, the key point of the multilevel perspective is that the same behavior may have a different meaning and consequences depending on the level at which it operates and from which it is examined. I thus extend my analysis of the area by providing an additional interpretation of the documented finding by discussing the meaning and consequences of the different individual reactions to economic cycles for organization. I do so through an integration of the literature on direct responses to economic cycles with extant organizational research on whether the given response is desirable from the perspective of organizational functioning. Specifically, I discuss how a certain outcome might impact organizations, rather than just the individual, based on past organizational research linking the particular employee behavior and organizationally-relevant outcomes.

This theoretical integration generates a new insight—responses to economic cycles that are functional for individuals are often dysfunctional from the perspective of

organizational functioning, potentially undermining broader economic units within which the responses occur. Figure 1 summarizes the conclusions of this integration, and Table 1 contains examples. I discuss key relevant individual responses driven by each theoretical process identified (self-protection, life history, intergroup conflict) and provide general overview of the literature (as opposed to delving into each individual paper). To be clear, I am not claiming that each individual response to economic cycles is personally functional but organizationally dysfunctional. But surprisingly many of the documented responses can indeed be interpreted in this way when integrated with organizational research on implications of the given response for organizational functioning.

To illustrate this point, consider first outcomes driven by individual, immediate self-protection responses. It might be functional for an employee not to speak up and voice critical suggestions concerning organizational practices when the economy is in a downturn and thus alternative job options are restricted (see, e.g., Proudfoot et al., 2015), given that such employee suggestions can result in a backlash by other organizational actors because they challenge the status quo and thus the organizational incumbents (Burriss, 2012; Fast, Burriss, & Bartel, 2014). However, from the perspective of organizations, this means that during economically challenging times, the workforce will be more likely to behave in ways that might undermine innovation, error correction, workplace safety, and performance of work units (e.g., Detert, Burriss, Harrison, & Martin, 2013; Edmondson, Bohmer, & Pisano, 2001; Lam & Mayer, 2014; MacKenzie, Podsakoff, & Podsakoff, 2011), ultimately undermining the organization's ability to weather the adverse economic situation.

This point illustrates the fact that the way individually functional self-protection responses may mutate in terms of their meaning and desirability to higher-level social entities by impacting dynamics related to tolerance of vulnerability, as the meaning and desirability of individual vulnerability tolerance might differ between individual-level and higher-level

units. During more adverse times, individuals might avoid risk and vulnerability, but higher-order units often depend on members of the collective embracing a certain level of vulnerability. This higher-level logic is exemplified by the case of critical communication described above. It is also exemplified by studies showing that recessions make people more weary and distrustful (Owens & Cook, 2013; Reeskens & Vandecasteele, 2017), a response that may be functional to minimize personal vulnerability (Bhattacharya, Devinney, & Pillutla, 1998; Mayer, Davis, & Schoorman, 1995). However, the same response may be problematic from the organizational standpoint, as unwillingness to make oneself vulnerable means lower organizational-level trust (i.e., lower willingness among organizational members to make own outcomes dependent on the goodwill of others), ultimately undermining the fluency of organizational processes and thus organizational-level effectiveness (Colquitt, Scott, & LePine, 2007).

The impact of economic cycles on functional individual-level self-protection motives, and the associated changes in individual tolerance for vulnerability, can also produce dysfunctional organizational-level outcomes not just in times of economic adversity but also during economic upturns. During times of prosperity, it might be more subjectively rational to tolerate higher levels of risk and try to attain even better outcomes for the self by deviating from the norms of appropriate organizational and social conduct (e.g., by taking more time or resources from the firm than one should), than during economic downturns, when one is relatively more vulnerable (Bianchi & Mohliver, 2016). At the same time, higher levels of self-benefiting unethical behavior among employees during economic upturns is clearly undesirable from the perspective of organizations and social systems.

The notion that the interplay between economic conditions, risk, and vulnerability may lead to responses that are functional for the individual but not for the collective has parallels to issues observed in the domain of consumption and investment. During adverse

economic periods, it is individually functional to withhold consumption and invest conservatively (if at all). Yet, such individually-functional responses can undermine the foundations of economic prosperity (relying on consumer demand and investor optimism) and aggravate the very economic problems that prompted the individual responses. What has been less appreciated in the literature is that similar problems driven by individually-functional responses to economic cycles might have profound implications not just for consumption and investments, but also for core workplace dynamics.

Consider life history responses next. These revolve around the core tension of investing in the future versus focusing on the present. As outlined earlier, they represent individually-functional ways of navigating the future—present tradeoff as a function of overarching economic conditions. However, they might similarly introduce problems for organizations, both when the economy is in a downturn as well as upturn, but driven by different worker segments. As described above, workers who respond to economic downturns through a stronger time discounting (those conditioned to do so through prior experiences with adverse economic conditions) tend to forego investment in future personal resources in favor of obtaining rewards sooner (e.g., free time or smaller but earlier material payoffs). One of the key theoretical perspectives of effective employee functioning, conservation of resources theory, highlights that investments in future resources and capabilities underlie a range of organizationally desirable outcomes and processes, from whether workers are able to self-regulate and refrain from engaging in counterproductive behavior at work (Penney, Hunter, & Perry, 2011), to whether they are able to adapt to changing technological and social demands required for effective organizational functioning (Chen, Westman, & Eden, 2009; Lee & Ok, 2014).

Finally, realistic group conflict responses perhaps most obviously constitute responses that may be individually functional but are clearly dysfunctional from the perspective of

organizations. Social-group-based discrimination is unfair to employees and is also inefficient from the standpoint of organizational performance maximization (Bertrand & Mullainathan, 2003; De Dreu & Weingart, 2003; Jehn, Northcraft, & Neale, 1999; Pager, Western, & Bonikowski, 2009). Yet, the relationship between economic cycles and intergroup tensions have been primarily studied in psychology, and the relevance of such responses to organizations have received less attention. This is problematic given that organizations might represent the most economically consequential contexts for social conflict, given their importance in shaping economic outcomes and livelihoods.

It is worth highlighting that, as in the case of unethical behavior being more prominent during economic upturns rather than downturns described above (Bianchi & Mohliver, 2016), individually functional responses to economic cycles may be dysfunctional for organizations not just when times are bad but also when times are good. This is another point of divergence between research on individual responses to economic cycles and job insecurity research, the latter being primarily concerned with a comparatively narrow range of outcomes that might represent problems for organizations when organizational profitability declines (Sverke et al., 2002). To understand this point further, consider the case of another way in which economic downturns shape how people construe social situations at work. Specifically, Sirola and Pitesa (2017b) found that people update their views of the relative power of individuals versus contextual influences (i.e., locus of control) as a function of the state of the economy.

Individually, this is a functional response, as the economy really is an important factor in whether individuals are able to bring about outcomes in the world, and thus individuals are objectively correct that they have more potential influence in bringing about desired economic outcomes during times of economic prosperity. However, the same change in perception can cause problems in interpersonal organizational settings, and particularly when



people need to evaluate others' work performance (a core activity necessary to ensure effective allocation of organizational rewards). Specifically, this research noted that "evaluations of work for which work quality and work outcomes are imperfectly correlated involve a great deal of error, mostly such that people over-attribute responsibility to individuals and underappreciate contextual influences" and, thus, "in times of prosperity, when organizations generally face the least problems, managers will be most prone to underappreciating the role of contextual influences, potentially leading to inefficient and unfair employee rewards [...]. In this way, prosperous times may sow the seed of their own downfall" (Sirola & Pitesa, 2017a: 11).

In sum, many of the individually-functional responses to economic cycles (both economic downturns as well as upturns) may be dysfunctional from the perspective of organizations. This fact calls not just for more research on such processes, but also for a greater role of organizational sciences in the effort to manage economic cycles effectively. Employees constitute the largest body of economic actors, and a deeper understanding of how their responses to the state of the economy impact organizational functioning can be an asset in anticipating and managing economic trends. For example, going back to cases of bank runs and panic selling discussed above, understanding counterproductive employee reactions to economic downturns that occur among *employees* (rather than just bank customers or investors) can open avenues for designing managerial and policy interventions that help ward off or reduce the intensity of upcoming economic downturns.

One might wonder why have individual reactions to economic cycles not been more systematically interpreted from the perspective of their desirability for organizational functioning? One likely reason is that most past thinking on individual employee behavior has traditionally focused on proximal factors (e.g., at the level of individuals, teams, or the organization), rather than thinking about potential cross-level processes through which

factors at the level of the entire economy may impact organizations through individual responses (Bamberger, 2008; Buckley, Hamdani, Klotz, & Valcea, 2011). In one of the early books advocating for a multilevel understanding of organizational phenomena, Roberts, Hulin, and Rousseau (1978) discuss the fact that micro-level research focuses on individual-level factors to explain turnover, largely ignoring processes at the level of the economy, which could explain about four times more variance in turnover. Similarly, for a micro-level organizational scholar interested in organizational citizenship behavior, it is generally unusual to examine explanatory factors above the level of the organization, although the state of the economy can also directly shape whether employees are helpful (Sirola & Pitesa, 2017a), which is a clear concern from the standpoint of organizational effectiveness (Podsakoff, Podsakoff, MacKenzie, Maynes, & Spoelma, 2014). The current consideration of individual reactions to economic cycles from the perspective of organizational functioning thus demonstrates the unique importance of bridging this micro-macro divide and attending to the top-down effects of the economy on the individual, and in turn bottom-up effects of these individual reactions on organizations. Doing so can help managerial effectiveness, as it can allow organizations to anticipate issues that arise in times of economic booms versus busts. The following section suggests directions for future work to advance knowledge on these processes.

### **AGENDA FOR ORGANIZATIONAL RESEARCH ON INDIVIDUAL RESPONSES TO ECONOMIC CYCLES**

The current integration of the literature makes salient two key points relevant to future organizational research. First, direct individual responses to economic cycles can have a profound impact on organizational functioning, an insight which arguably has not been salient to organizational scientists thus far due to micro-macro divisions characterizing the field. Second, the theoretical systematization of the literature on individual reactions to

economic cycles that identifies the key underlying psychological processes reveals that many responses which would be predicted by the identified theoretical processes and which would be also relevant to organizations have not been studied. The combination of these two insights lays a path forward for future work by organizational scientists.

### **Leveraging Identified Theoretical Processes**

Consider the case of life history theory, suggesting that in times of economic uncertainty, people adopt a shorter time horizon or lower future focus, and that the effect is particularly pronounced among people sensitized to fast life history by being exposed to more adverse economic conditions in the past. This perspective would predict that during economic downturns employees, and particularly those sensitized to a fast life history by growing up in adverse economic conditions, will be less rather than more likely to engage in *voluntary learning*, a future-oriented behavior (Kyndt & Baert, 2013; Maurer, 2002), which is clearly relevant to organizations. This possibility has not been investigated, but the combination of a strong theoretical background of life history theory and the organizational relevance of this potential outcome suggests that it should be.

The identified life history process also suggests that during downturns, employees, and particularly those with prior exposure to adverse economic conditions, might also become less rather than more likely to step up and go over and beyond in support of their organization (i.e., engage in *organizationally-directed citizenship behavior*), in favor of more free time or other immediate benefits. This is a straightforward prediction based on past work on life history theory (Chen & Chang, 2016; Chen & Qu, 2017), but it has not been tested by organizational researchers.

Another potential implication of the life history processes the review identifies, and which points to directions for future research by organizational scientists, concerns *employee creativity*. Life history theory suggests that during downturns, employees, and particularly

employees who experienced economic adversity in the past, would exhibit lower openness to experience. Specifically, “Conscientiousness, and Openness are regarded as endeavor-related traits, reflecting variable investment of time and effort in social, task-related, and idea-related activities, respectively” (Manson, 2015: 50). Given that economic uncertainty reduces focus on the future, openness should be lower during such times, particularly among those employees who grew up in adverse economic conditions (see Tasselli, Kilduff, & Landis, 2018 for a recent review on personality change). Lower openness is associated with lower creativity (Baer & Oldham, 2006; McCrae, 1987; Silvia, Martin, & Nusbaum, 2009), a clear concern for organizations.

Each of these examples illustrates how just one process identified through a review of past work, life history theory, points to likely implications for employee behavior which have not been investigated. Each of these potential employee responses to cues of economic downturns is clearly a concern for organizations, which benefit from employee voluntary learning (Gong, Huang, & Farh, 2009; VandeWalle, Brown, Cron, & Slocum Jr, 1999), organizationally-directed citizenship behavior (Podsakoff et al., 2014), as well as creativity (Amabile, 1996; Shalley, Zhou, & Oldham, 2004). Although there is a good theoretical background suggesting that these employee outcomes might decrease rather than increase during difficult economic times, such potentially worrisome individual reactions to the state of the economy require direct testing by organizational scientists.

Similar interesting and organizationally and socially important directions for future organizational scholarship arise through a consideration of each of the other two processes underlying responses to economic cycles recognized and systematized in the current review: self-protection responses and outgroup resource competition responses. For instance, psychology of self-protection has recently been highlighted as part of a potential unifying framework explaining individual preferences for different incentive structures (Fulmer &

Shaw, 2018). Yet, virtually no organizational research investigated how economic cycles impact organizational members' incentive-related preferences and behavior, while doing so might resolve interesting and practically important puzzles in the literature.

For example, it is known that recessions amplify societal inequality (Meyer & Sullivan, 2013; Mocan, 1999), and the self-protection response identified by the review suggests individual responses to economic cycles among organizational actors might play a role in this phenomenon. Recessions might prompt higher-income and higher-performing members to prefer higher levels of vertical and horizontal pay dispersion (i.e., larger differences in pay as a function of performance differences). Consistent with this idea, Fulmer & Shaw (2018: 943) note that people may perceive larger pay dispersion "as an opportunity to avoid future losses of an "extra" source of income, leading to more promotive, risk-seeking behavior." Higher-performing organizational members are more likely to have influence over the distribution of organizational resources (e.g., how bonuses are allocated), and this process might also influence their choice of organizations (and in turn organizations that attract higher-performing employees fare better). Each of these individual reactions to economic cycles might resolve the puzzle of why downturns amplify inequality.

Similarly, considering individuals' outgroup resource competition responses to economic cycles points to important directions for future research. A review of papers on why recessions generate intergroup tensions suggests that most studies conclude that this response is a way to ward off threat to own resources posed by out-groups (Bianchi et al., 2018; Butz & Yogeewaran, 2011; Coenders, Lubbers, Scheepers, & Verkuyten, 2008; Krosch, Tyler, & Amodio, 2017; Quillian, 1995). However, this is something that organizations and leaders can manage by creating linkages between self-interest and non-discrimination (rather than discrimination), for example through accountability systems (Tetlock & Mitchell, 2009) or diversity climates (Cox Jr, 2001; McKay et al., 2007). Future

organizational research is needed to investigate most effective ways in which organizations can manage workplace social problems arising as a function of economic cycles.

Finally, the current theoretical systematization can be helpful to future research as it will prompt researchers to be specific in their theorizing concerning direct effects of economic cycles on individuals. Consider a situation in which one functional response is predicted to overshadow another. For example, life-history prompted impulsivity in response to cues of downturns might be expected to be overshadowed by the rational self-protection response to save money and reduce consumption (Griskevicius et al., 2013). Clarity in terms of the key theoretical processes may help future research to specify with precision the relevant theoretical constructs and relationships, and to explain both why they expect a certain effect as well as why they do not expect certain other potentially relevant effects.

### **Integration with Research on Factors Residing at Intermediary Levels**

As the examples of accountability systems and organizational climates above illustrate, more attention by organizational scholars is needed on the interaction between economic cycles and lower-level organizational factors and processes. Understanding how dynamics at the level of teams and leaders interact with individual responses to economic cycles will be essential in learning how to manage individuals' reactions to ensure they do not undermine organizational effectiveness and wellbeing of other organizational members. This is particularly relevant in light of evidence that managers tend to be ineffective at this important task. Specifically, Folger and Skarlicki (1998) studied how bad economic conditions impact managers' tendency to communicate with their employees with respect and care, something that the organizational crisis literature identified as key to minimizing harm during layoffs (Brockner et al., 1994; Skarlicki & Folger, 1997). Yet, Folger and Skarlicki (1998) find that "tough times make tough bosses" in the sense that when layoffs occur due to a bad economy (compared to organizational-level performance issues), managers engage in

distancing behavior and take *less* time to explain reasons for dismissal.<sup>1</sup> A related reason for concern comes from research by Kakkar & Sivanathan (2017), which suggests that economic downturns might lead organizational stakeholders to tolerate such behavior. They find that “under a situational threat of economic uncertainty (as exemplified by the poverty rate, the housing vacancy rate, and the unemployment rate) people escalate their support for dominant leaders,” defined as leaders who are less “generous and helpful” (Kakkar & Sivanathan 2017: 2).

In addition to examining the role of factors at the level of teams and leaders, examining interactions between economic cycles and the lower-level construct of individuals’ personal background may uncover implications economic cycles can have for the role of organizations in societal inequality, a growing concern in organizational sciences (Bapuji, Ertug, & Shaw, 2019). Specifically, if economic cycles make people who experienced economic adversity in the past less likely to engage in behaviors useful to the organization and thus potentially their career, while having no such effect (or even having the opposite effect; Griskevicius et al., 2013; Griskevicius, Delton, et al., 2011) on people who were more fortunate, this might represent a mechanism inherent in economic cycles themselves which amplifies intergenerational transmission of inequality. This discussion suggests that there is a larger role to be played by organizational scientists in understanding how economic cycles are related to other social trends, such as inequality, through micro-level organizational processes.

### **Focus on *Organizational* Relevance**

<sup>1</sup> Description based on a meta-analysis of correlations reported in Tables 1 and 2 of Folger & Skarlicki (1998). See [https://osf.io/gxsrk/?view\\_only=47da71dc056c450294b76c528c89d0d6](https://osf.io/gxsrk/?view_only=47da71dc056c450294b76c528c89d0d6) for the syntax of the analysis.

As in the examples discussed above, various individual reactions to the state of the economy may have important implications for organizational processes. Yet, many reactions may not. For example, research found that people respond to cues of a bad economy “by shifting away from the thin body weight typically favored by Western women toward a heavier female body ideal” (Hill, Delpriore, Rodeheffer, & Butterfield, 2014: 148). Similarly, research found that “that recessionary cues—whether naturally occurring or experimentally primed— decreased desire for most products (e.g., electronics, household items). However, these cues consistently increased women’s desire for products that increase attractiveness to mates” (Hill et al., 2012: 1). Both these individual reactions to economic cycles are interesting (and again individually-functional, albeit in the mating domain), but perhaps less immediately relevant from the perspective of organizational functioning.

As such, future research may rely on the organizational literature (e.g., Harter, Schmidt, & Hayes, 2002) to identify the most important antecedents of organizational performance (e.g., motivation, creativity, etc.), and to focus on those individual responses to economic cycles that may have most impact on organizational performance. Organizations are also interested not just in economic performance, but, ideally, also the wellbeing of their members. To pinpoint most relevant issues related to worker wellbeing that individual responses to economic cycles might impact, future research could draw on psychological models of key drivers of individual wellbeing from psychology, such as research on fundamental needs (Baumeister & Leary, 1995; Kenrick, Griskevicius, Neuberg, & Schaller, 2010).

## CONCLUSION

The current review reveals that many individual responses to economic cycles may be functional from an individual perspective, but nevertheless cause issues for the overarching economic units. As such, the current review uncovers a tension (and organizational



relevance) inherent in the interplay between the individual and economic cycles. Downturns have always been thought to be fueled and perpetuated, in part, by counterproductive reactions of individuals following exposure to information that the economy might be entering a downturn. Most notable documented cases of such behavior are bank runs and investors' panic selling. Understanding when individuals engage in behaviors that hinder rather than help *organizations'* ability to navigate economic cycles is similarly relevant for the ability of organizational leaders to manage their workforce across economic cycles through informed managerial action. I hope that the current review will promote more organizational research on how individual responses to economy-level changes affect organizations and ultimately help managers to navigate complex interactions among economic systems, individuals, and their organizations.

## REFERENCES

References marked with an asterisk indicate studies documenting individual responses to economic cycles included in the main body of work reviewed.

\*Aguiar, M., Hurst, E., & Karabarbounis, L. 2013. Time use during the great recession.

*American Economic Review*, 103(5): 1664–96.

\*Akay, A., Bargain, O., & Zimmermann, K. F. 2017. Home Sweet Home?: Macroeconomic

Conditions in Home Countries and the Well-Being of Migrants. *Journal of Human Resources*, 52(2): 351–373.

Allen, N. B., & Badcock, P. B. T. 2003. The social risk hypothesis of depressed mood:

Evolutionary, psychosocial, and neurobiological perspectives. *Psychological Bulletin*, 129(6): 887–913.

- \*Altonji, J. G., Kahn, L. B., & Speer, J. D. 2016. Cashier or Consultant? Entry Labor Market Conditions, Field of Study, and Career Success. *Journal of Labor Economics*, 34(S1): S361–S401.
- Amabile, T. M. 1996. *Creativity in context: Update to the social psychology of creativity*. Hachette UK.
- \*Anderson, C. J., & Pontusson, J. 2007. Workers, worries and welfare states: Social protection and job insecurity in 15 OECD countries. *European Journal of Political Research*, 46(2): 211–235.
- Andrews, P. W., & Thomson Jr, J. A. 2009. The bright side of being blue: Depression as an adaptation for analyzing complex problems. *Psychological Review*, 116(3): 620.
- \*Arampatzi, E., Burger, M. J., & Veenhoven, R. 2015. Financial distress and happiness of employees in times of economic crisis. *Applied Economics Letters*, 22(3): 173–179.
- \*Artz, B., & Kaya, I. 2014. The impact of job security on job satisfaction in economic contractions versus expansions. *Applied Economics*, 46(24): 2873–2890.
- \*Ásgeirsdóttir, T. L., Corman, H., Noonan, K., Ólafsdóttir, Þ., & Reichman, N. E. 2014. Was the economic crisis of 2008 good for Icelanders? Impact on health behaviors. *Economics & Human Biology*, 13: 1–19.
- \*Askildsen, J. E., Bratberg, E., & Nilsen, Ø. A. 2005. Unemployment, labor force composition and sickness absence: A panel data study. *Health Economics*, 14(11): 1087–1101.
- Baer, M., & Oldham, G. R. 2006. The curvilinear relation between experienced creative time pressure and creativity: Moderating effects of openness to experience and support for creativity. *Journal of Applied Psychology*, 91(4): 963.

- Bamberger, P. 2008. From the editors beyond contextualization: Using context theories to narrow the micro-macro gap in management research. *Academy of Management Journal*, 51(5): 839–846.
- Bapuji, H., Ertug, G., & Shaw, J. D. 2019. Organizations and societal economic inequality: A review and way forward. *Academy of Management Annals*, (Online, 24 Jul 2019). <https://doi.org/10.5465/annals.2018.0029>.
- \*Barnes, C. M., Lefter, A. M., Bhave, D. P., & Wagner, D. T. 2016. The benefits of bad economies: Business cycles and time-based work–life conflict. *Journal of Occupational Health Psychology*, 21(2): 235–249.
- Baumeister, R. F., & Leary, M. R. 1995. The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3): 497–529.
- Baumeister, R. F., & Vohs, K. D. 2001. Narcissism as addiction to esteem. *Psychological Inquiry*, 12(4): 206–210.
- \*Beck, E. M., & Tolnay, S. E. 1990. The killing fields of the deep south: The market for cotton and the lynching of blacks, 1882-1930. *American Sociological Review*, 526–539.
- \*Becker, J. C., Wagner, U., & Christ, O. 2011. Consequences of the 2008 financial crisis for intergroup relations: The role of perceived threat and causal attributions. *Group Processes & Intergroup Relations*, 14(6): 871–885.
- Beehr, T. A., & Newman, J. E. 1978. Job stress, employee health, and organizational effectiveness: A facet analysis, model, and literature review 1. *Personnel Psychology*, 31(4): 665–699.

- Belsky, J., Steinberg, L., & Draper, P. 1991. Childhood experience, interpersonal development, and reproductive strategy: An evolutionary theory of socialization. *Child Development*, 62(4): 647–670.
- \*Berk, M., Dodd, S., & Henry, M. 2006. The effect of macroeconomic variables on suicide. *Psychological Medicine*, 36(2): 181–189.
- Bertrand, M., & Mullainathan, S. 2003. Are Emily and Greg more employable than Lakisha and Jamal? A field experiment on labor market discrimination. *American Economic Review*, 94(4): 991–1013.
- Bhattacharya, R., Devinney, T. M., & Pillutla, M. M. 1998. A formal model of trust based on outcomes. *Academy of Management Review*, 23(3): 459–472.
- \*Bianchi, E. C. 2013. The bright side of bad times: The affective advantages of entering the workforce in a recession. *Administrative Science Quarterly*, 58(4): 587–623.
- \*Bianchi, E. C. 2014. Entering adulthood in a recession tempers later narcissism. *Psychological Science*, 25(7): 1429–1437.
- \*Bianchi, E. C. 2015. Assessing the robustness of the relationship between entering adulthood in a recession and narcissism. *Psychological Science*, 26(4): 537–538.
- \*Bianchi, E. C. 2016. American individualism rises and falls with the economy: Cross-temporal evidence that individualism declines when the economy falters. *Journal of Personality and Social Psychology*, 111(4): 567–584.
- \*Bianchi, E. C., Hall, E. V., & Lee, S. 2018. Reexamining the link between economic downturns and racial antipathy: Evidence that prejudice against blacks rises during recessions. *Psychological Science*, 0956797618777214.
- \*Bianchi, E. C., & Mohliver, A. 2016. Do good times breed cheats? Prosperous times have immediate and lasting implications for CEO misconduct. *Organization Science*, 27(6): 1488–1503.

- \*Blanton, R., Blanton, S., & Peksens, D. 2019. The Gendered Consequences of Financial Crises: A Cross-National Analysis. *Politics & Gender*, 15(4): 941–970.
- Bolino, M. C., Klotz, A. C., Turnley, W. H., & Harvey, J. 2013. Exploring the dark side of organizational citizenship behavior. *Journal of Organizational Behavior*, 34(4): 542–559.
- \*Bor, J., Basu, S., Coutts, A., McKee, M., & Stuckler, D. 2013. Alcohol Use During the Great Recession of 2008–2009. *Alcohol and Alcoholism*, 48(3): 343–348.
- \*Brenner, M. H. 1971. Economic changes and heart disease mortality. *American Journal of Public Health*, 61(3): 606–611.
- \*Brizi, A., Mannetti, L., & Kruglanski, A. W. 2016. The closing of open minds: Need for closure moderates the impact of uncertainty salience on outgroup discrimination. *British Journal of Social Psychology*, 55(2): 244–262.
- Brockner, J., DeWitt, R. L., Grover, S., & Reed, T. 1990. When it is especially important to explain why: Factors affecting the relationship between managers' explanations of a layoff and survivors' reactions to the layoff. *Journal of Experimental Social Psychology*, 26(5): 389–407.
- Brockner, J., Konovsky, M., Cooper-Schneider, R., Folger, R., Martin, C., et al. 1994. Interactive effects of procedural justice and outcome negativity on victims and survivors of job loss. *Academy of Management Journal*, 37(2): 397–409.
- \*Brooks, C., & Manza, J. 2013. A Broken Public? Americans' Responses to the Great Recession. *American Sociological Review*, 78(5): 727–748.
- Brown, M., Trautmann, S. T., & Vlahu, R. 2016. Understanding bank-run contagion. *Management Science*, 63(7): 2272–2282.

- Bruckmüller, S., Ryan, M. K., Rink, F., & Haslam, S. A. 2014. Beyond the glass ceiling: The glass cliff and its lessons for organizational policy. *Social Issues and Policy Review*, 8(1): 202–232.
- \*Brunner, B., & Kuhn, A. 2014. The impact of labor market entry conditions on initial job assignment and wages. *Journal of Population Economics*, 27(3): 705–738.
- Buckley, M. R., Hamdani, M. R., Klotz, A. C., & Valcea, S. 2011. Into the great wide open: Bridging the micro-macro divide in the organizational sciences. In D. D. Bergh & D. J. Ketchen (Eds.), *Research methodology in strategy and management*: 31–68. Bingley, England: Emerald.
- Bureau of Labor Statistics. 2012. *The recession of 2007–2009*.  
<http://www.bls.gov/spotlight/2012/recession/>.
- \*Burgard, S. A., Ailshire, J. A., & Kalousova, L. 2013. The Great Recession and Health: People, Populations, and Disparities. (S. Danziger, Ed.) *The ANNALS of the American Academy of Political and Social Science*, 650(1): 194–213.
- \*Burgard, S. A., & Kalousova, L. 2015. Effects of the Great Recession: Health and Well-Being. *Annual Review of Sociology*, 41(1): 181–201.
- Burris, E. R. 2012. The risks and rewards of speaking up: Managerial responses to employee voice. *Academy of Management Journal*, 55: 851–875.
- \*Butz, D. A., & Yogeewaran, K. 2011. A new threat in the air: Macroeconomic threat increases prejudice against Asian Americans. *Journal of Experimental Social Psychology*, 47(1): 22–27.
- \*Cahill, K. E., McNamara, T. K., Pitt-Catsouphes, M., & Valcour, M. 2015. Linking shifts in the national economy with changes in job satisfaction, employee engagement and work–life balance. *Journal of Behavioral and Experimental Economics*, 56: 40–54.

- Campbell, D. T. 1965. Ethnocentric and other altruistic motives. In D. Levine (Ed.), *Nebraska symposium on motivation*, vol. 13: 283–311. Lincoln, NE: University of Nebraska.
- \*Carsten, J. M., & Spector, P. E. 1987. Unemployment, job satisfaction, and employee turnover: A meta-analytic test of the Muchinsky model. *Journal of Applied Psychology*, 72(3): 374–374.
- Chen, B.-B., & Chang, L. 2016. Procrastination as a fast life history strategy. *Evolutionary Psychology*, 14(1): 1474704916630314.
- Chen, B.-B., & Qu, W. 2017. Life history strategies and procrastination: The role of environmental unpredictability. *Personality and Individual Differences*, 117: 23–29.
- Chen, S., Westman, M., & Eden, D. 2009. Impact of enhanced resources on anticipatory stress and adjustment to new information technology: A field-experimental test of conservation of resources theory. *Journal of Occupational Health Psychology*, 14(3): 219–230.
- \*Cheng, G. H., & Chan, D. K. 2008. Who suffers more from job insecurity? A meta-analytic review. *Applied Psychology*, 57(2): 272–303.
- \*Coenders, M., Lubbers, M., Scheepers, P., & Verkuyten, M. 2008. More than two decades of changing ethnic attitudes in the Netherlands. *Journal of Social Issues*, 64(2): 269–285.
- \*Cohn, A., Engelmann, J., Fehr, E., & Maréchal, M. A. 2015. Evidence for countercyclical risk aversion: An experiment with financial professionals. *American Economic Review*, 105(2): 860–885.
- \*Colombo, E., Rotondi, V., & Stanca, L. 2018. Macroeconomic conditions and well-being: Do social interactions matter? *Applied Economics*, 50(28): 3029–3038.

- Colquitt, J. A., Scott, B. A., & LePine, J. A. 2007. Trust, trustworthiness, and trust propensity: A meta-analytic test of their unique relationships with risk taking and job performance. *Journal of Applied Psychology*, 92(4): 909–927.
- \*Conover, P. J., & Feldman, S. 1986. Emotional Reactions to the Economy: I'm Mad as Hell and I'm not Going to Take it Anymore. *American Journal of Political Science*, 30(1): 50.
- \*Cotton, J. L., & Tuttle, J. M. 1986. Employee Turnover: A Meta-Analysis and Review with Implications for Research. *Academy of Management Review*, 11(1): 55–70.
- \*Couch, K. A., & Fairlie, R. 2010. Last Hired, First Fired? Black-White Unemployment and the Business Cycle. *Demography*, 47(1): 227–247.
- Cox Jr, T. 2001. *Creating the multicultural organization: A strategy for capturing the power of diversity*. Jossey-Bass.
- \*Cutler, D. M., Huang, W., & Lleras-Muney, A. 2015. When does education matter? The protective effect of education for cohorts graduating in bad times. *Social Science & Medicine*, 127: 63–73.
- \*Darity, W., & Goldsmith, A. H. 1996. Social Psychology, Unemployment and Macroeconomics. *Journal of Economic Perspectives*, 10(1): 121–140.
- \*Dávalos, M. E., Fang, H., & French, M. T. 2012. Easing the pain of an economic downturn: Macroeconomic conditions and excessive alcohol consumption. *Health Economics*, 21(11): 1318–1335.
- De Dreu, C. K., & Weingart, L. R. 2003. Task versus relationship conflict, team performance, and team member satisfaction: A meta-analysis. *Journal of Applied Psychology*, 88(4): 741.
- \*Dee, T. S. 2001. Alcohol abuse and economic conditions: Evidence from repeated cross-sections of individual-level data. *Health Economics*, 10(3): 257–270.



Detert, J. R., Burriss, E. R., Harrison, D. A., & Martin, S. R. 2013. Voice flows to and around leaders: Understanding when units are helped or hurt by employee voice.

*Administrative Science Quarterly*, 58(4): 624–668.

\*Devece, C., Palacios-Marqués, D., & Pilar Alguacil, M. 2016. Organizational commitment and its effects on organizational citizenship behavior in a high-unemployment environment. *Journal of Business Research*, 69(5): 1857–1861.

\*Di Tella, R., MacCulloch, R. J., & Oswald, A. J. 2001. Preferences over inflation and unemployment: Evidence from surveys of happiness. *American Economic Review*, 91(1): 335–341.

\*Diaz, P., Saenz, D. S., & Kwan, V. S. Y. 2011. Economic Dynamics and Changes in Attitudes Toward Undocumented Mexican Immigrants in Arizona: Economic Dynamics and Changes in Attitudes. *Analyses of Social Issues and Public Policy*, 11(1): 300–313.

Dollard, J., Miller, N. E., Doob, L. W., Mowrer, O. H., & Sears, R. R. 1939. *Frustration and aggression*. New Haven, CT, US: Yale University Press.

\*Doran, J., & Fingleton, B. 2016. Employment Resilience in Europe and the 2008 Economic Crisis: Insights from Micro-Level Data. *Regional Studies*, 50(4): 644–656.

\*Dupuis, D. R., & Newby-Clark, I. R. 2016. Economic threat undermines the satisfaction of psychological needs for competence and autonomy. *Journal of Applied Social Psychology*, 46(2): 94–104.

Eagly, A. H. 1987. *Sex differences in social behavior: A social-role interpretation*. Hillsdale, NJ: Erlbaum.

Edmondson, A. C., Bohmer, R. M., & Pisano, G. P. 2001. Disrupted routines: Team learning and new technology implementation in hospitals. *Administrative Science Quarterly*, 46(4): 685–716.

- \*Ellonen, N., & Nätti, J. 2015. Job insecurity and the unemployment rate: Micro- and macro-level predictors of perceived job insecurity among Finnish employees 1984–2008. *Economic and Industrial Democracy*, 36(1): 51–71.
- Eurofund. 2009. *ERM Report 2009: Restructuring in recession*.  
<http://www.eurofound.europa.eu/publications/annual-report/2009/labour-market-business/erm-report-2009-restructuring-in-recession>.
- Fast, N. J., Burriss, E. R., & Bartel, C. A. 2014. Managing to stay in the dark: Managerial self-efficacy, ego defensiveness, and the aversion to employee voice. *Academy of Management Journal*, 57(4): 1013–1034.
- \*Fenwick, R., & Tausig, M. 1994. The macroeconomic context of job stress. *Journal of Health and Social Behavior*, 266–282.
- \*Ferrera, M., & Pellegata, A. 2018. Worker mobility under attack? Explaining labour market chauvinism in the EU. *Journal of European Public Policy*, 25(10): 1461–1480.
- \*Finkel, S. E., Muller, E. N., & Seligson, M. A. 1989. Economic Crisis, Incumbent Performance and Regime Support: A Comparison of Longitudinal Data from West Germany and Costa Rica. *British Journal of Political Science*, 19(3): 329–351.
- Finkelstein, L. M., Burke, M. J., & Raju, M. S. 1995. Age discrimination in simulated employment contexts: An integrative analysis. *Journal of Applied Psychology*, 80(6): 652–663.
- Fisman, R., Jakiela, P., & Kariv, S. 2015. How did distributional preferences change during the Great Recession? *Journal of Public Economics*, 128: 84–95.
- \*Fletcher, J. 2015. Does entering adulthood in a recession affect narcissism? Robust evidence is still needed. *Psychological Science*, 26(4): 534–536.
- Folbre, N. 2009. *Greed, lust and gender: A history of economic ideas*. Oxford University Press.

- \*Folger, R., & Skarlicki, D. P. 1998. When tough times make tough bosses: Managerial distancing as a function of layoff blame. *Academy of Management Journal*, 41(1): 79–87.
- Frijda, N. H. 1986. *The emotions*. Cambridge University Press.
- \*Frijters, P., Johnston, D. W., Lordan, G., & Shields, M. A. 2013. Exploring the relationship between macroeconomic conditions and problem drinking as captured by Google searches in the US. *Social Science & Medicine*, 84: 61–68.
- \*Frone, M. R. 2016. The great recession and employee alcohol use: A US population study. *Psychology of Addictive Behaviors*, 30(2): 158.
- Fulmer, I. S., & Shaw, J. D. 2018. Person-based differences in pay reactions: A compensation-activation theory and integrative conceptual review. *Journal of Applied Psychology*, 103(9): 939–958.
- \*Gentry, W. A., Kuhnert, K. W., Mondore, S. P., & Page, E. E. 2007. The influence of supervisory-support climate and unemployment rate on part-time employee retention: A multilevel analysis. *Journal of Management Development*, 26(10): 1005–1022.
- \*Giorgi, G., Shoss, M. K., & Leon-Perez, J. M. 2015. Going beyond workplace stressors: Economic crisis and perceived employability in relation to psychological distress and job dissatisfaction. *International Journal of Stress Management*, 22(2): 137–158.
- \*Giuliano, P., & Spilimbergo, A. 2013. Growing up in a Recession. *Review of Economic Studies*, 81(2): 787–817.
- \*Goldstein, J. L., & Peters, M. E. 2014. Nativism or Economic Threat: Attitudes Toward Immigrants During the Great Recession. *International Interactions*, 40(3): 376–401.
- Gong, Y., Huang, J.-C., & Farh, J.-L. 2009. Employee learning orientation, transformational leadership, and employee creativity: The mediating role of employee creative self-efficacy. *Academy of Management Journal*, 52(4): 765–778.

- \*Gorodzeisky, A., & Semyonov, M. 2018. Competitive threat and temporal change in anti-immigrant sentiment: Insights from a hierarchical age-period-cohort model. *Social Science Research*, 73: 31–44.
- \*Grasso, M. T., & Giugni, M. 2016. Protest participation and economic crisis: The conditioning role of political opportunities. *European Journal of Political Research*, 55(4): 663–680.
- \*Green, D. P., Glaser, J., & Rich, A. 1998. From lynching to gay bashing: The elusive connection between economic conditions and hate crime. *Journal of Personality and Social Psychology*, 75(1): 82–.
- \*Griskevicius, V., Ackerman, J. M., Cantú, S. M., Delton, A. W., Robertson, T. E., et al. 2013. When the economy falters, do people spend or save? Responses to resource scarcity depend on childhood environments. *Psychological Science*, 2(24): 197–205.
- Griskevicius, V., Delton, A. W., Robertson, T. E., & Tybur, J. M. 2011. Environmental contingency in life history strategies: The influence of mortality and socioeconomic status on reproductive timing. *Journal of Personality and Social Psychology*, 100(2): 241–254.
- \*Guimond, S., & Damburn, M. 2002. When prosperity breeds intergroup hostility: The effects of relative deprivation and relative gratification on prejudice. *Personality and Social Psychology Bulletin*, 28(7): 900–912.
- Harari, Y. N. 2014. *Sapiens: A brief history of humankind*. London, UK: Harvill Secker.
- \*Hardardottir, H. 2017. Long term stability of time preferences and the role of the macroeconomic situation. *Journal of Economic Psychology*, 60: 21–36.
- Harter, J. K., Schmidt, F. L., & Hayes, T. L. 2002. Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology*, 87(2): 268–279.

- \*Hatton, T. J. 2016. Immigration, public opinion and the recession in Europe. *Economic Policy*, 31(86): 205–246.
- \*Hausknecht, J. P., Hiller, N. J., & Vance, R. J. 2008. Work-unit absenteeism: Effects of satisfaction, commitment, labor market conditions, and time. *Academy of Management Journal*, 51(6): 1223–1245.
- \*Hill, S. E., Delpriore, D. J., Rodeheffer, C. D., & Butterfield, M. E. 2014. The effect of ecological harshness on perceptions of the ideal female body size: An experimental life history approach. *Evolution and Human Behavior*, 35(2): 148–154.
- \*Hill, S. E., Rodeheffer, C. D., Griskevicius, V., Durante, K., & White, A. E. 2012. Boosting beauty in an economic decline: Mating, spending, and the lipstick effect. *Journal of Personality and Social Psychology*, 103(2): 275–291.
- \*Houdmont, J., Kerr, R., & Addley, K. 2012. Psychosocial factors and economic recession: The Stormont Study. *Occupational Medicine*, 62(2): 98–104.
- \*Hovland, C. I., & Sears, R. R. 1940. Minor studies of aggression: VI. Correlation of lynchings with economic indices. *Journal of Psychology*, 9(2): 301–310.
- \*Hui, C. H. 1988. Impacts of objective and subjective labour market conditions on employee turnover. *Journal of Occupational Psychology*, 61(3): 211–219.
- \*Jacquart, P., & Antonakis, J. 2015. When does charisma matter for top-level leaders? Effect of attributional ambiguity. *Academy of Management Journal*, 58(4): 1051–1074.
- Jehn, K. A., Northcraft, G. B., & Neale, M. A. 1999. Why differences make a difference: A field study of diversity, conflict and performance in workgroups. *Administrative Science Quarterly*, 44(4): 741–763.
- \*Jetten, J., Mols, F., Healy, N., & Spears, R. 2017. “Fear of Falling”: Economic Instability Enhances Collective Angst among Societies’ Wealthy Class: Economic Instability and Wealthy-Class Angst. *Journal of Social Issues*, 73(1): 61–79.

- \*Jetten, J., Ryan, R., & Mols, F. 2017. Stepping in the Shoes of Leaders of Populist Right-Wing Parties: Promoting Anti-Immigrant Views in Times of Economic Prosperity. *Social Psychology*, 48(1): 40–46.
- \*Johansson Sevä, I., Vinberg, S., Nordenmark, M., & Strandh, M. 2016. Subjective well-being among the self-employed in Europe: Macroeconomy, gender and immigrant status. *Small Business Economics*, 46(2): 239–253.
- \*Johnston, D. W., & Lordan, G. 2016. Racial Prejudice and Labour Market Penalties during Economic Downturns. *European Economic Review*, 84: 57–75.
- Jones, K. P., Sabat, I. E., King, E. B., Ahmad, A., McCausland, T. C., et al. 2017. Isms and schisms: A meta-analysis of the prejudice-discrimination relationship across racism, sexism, and ageism. *Journal of Organizational Behavior*, 38(7): 1076–1110.
- \*Jones, M. D., Sliter, M., & Sinclair, R. R. 2016. Overload, and Cutbacks, and Freezes, Oh My! The Relative Effects of the Recession-Related Stressors on Employee Strain and Job Satisfaction: Effects of Recession-Related Stressors. *Stress and Health*, 32(5): 629–635.
- Kakkar, H., & Sivanathan, N. 2017. When the appeal of a dominant leader is greater than a prestige leader. *Proceedings of the National Academy of Sciences*, 114(26): 6734–6739.
- Kaplan, H. S., & Gangestad, S. W. 2005. Life history theory and evolutionary psychology. In D. M. Buss (Ed.), *The handbook of evolutionary psychology*: 68–95. New York, NY: Wiley.
- \*Keim, A. C., Landis, R. S., Pierce, C. A., & Earnest, D. R. 2014. Why do employees worry about their jobs? A meta-analytic review of predictors of job insecurity. *Journal of Occupational Health Psychology*, 19(3): 269–290.

- Kenrick, D. T., Griskevicius, V., Neuberg, S. L., & Schaller, M. 2010. Renovating the pyramid of needs contemporary extensions built upon ancient foundations. *Perspectives on Psychological Science*, 5(3): 292–314.
- \*Kim, Y., & Ployhart, R. E. 2014. The effects of staffing and training on firm productivity and profit growth before, during, and after the Great Recession. *Journal of Applied Psychology*, 99(3): 361–389.
- \*King, E. B., Knight, J. L., & Hebl, M. R. 2010. The Influence of Economic Conditions on Aspects of Stigmatization: Economic Conditions and Stigma. *Journal of Social Issues*, 66(3): 446–460.
- \*Kingston, G., McGinnity, F., & O’Connell, P. J. 2015. Discrimination in the labour market: Nationality, ethnicity and the recession. *Work, Employment and Society*, 29(2): 213–232.
- Klein, K. J., & Kozlowski, S. W. 2000. From micro to meso: Critical steps in conceptualizing and conducting multilevel research. *Organizational Research Methods*, 3(3): 211–236.
- Knack, S., & Keefer, P. 1997. Does social capital have an economic payoff? A cross-country investigation. *Quarterly Journal of Economics*, 112(4): 1251–1288.
- \*Kondo, A. 2015. Differential effects of graduating during a recession across gender and race. *IZA Journal of Labor Economics*, 4(1): 23.
- Kozlowski, S. W. J., & Klein, K. J. 2000. A multilevel approach to theory and research in organizations: Contextual, temporal, and emergent processes. *Multilevel theory, research and methods in organizations: Foundations, extensions, and new directions*: 3–90. San Francisco, CA: Jossey-Bass.

- \*Krosch, A. R., Tyler, T. R., & Amodio, D. M. 2017. Race and recession: Effects of economic scarcity on racial discrimination. *Journal of Personality and Social Psychology*, 113(6): 892–909.
- Kurzban, R., Tooby, J., & Cosmides, L. 2001. Can race be erased? Coalitional computation and social categorization. *Proceedings of the National Academy of Sciences*, 98(26): 15387–15392.
- Kyndt, E., & Baert, H. 2013. Antecedents of employees' involvement in work-related learning: A systematic review. *Review of Educational Research*, 83(2): 273–313.
- \*Lahteenmaki, S., Storey, J., & Vanhala, S. 1998. HRM and company performance: The use of measurement and the influence of economic cycles. *Human Resource Management Journal*, 8(2): 51–65.
- Lam, C. F., & Mayer, D. M. 2014. When do employees speak up for their customers? A model of voice in a customer service context. *Personnel Psychology*, 67(3): 637–666.
- Lapierre, L. M., Spector, P. E., & Leck, J. D. 2005. Sexual versus nonsexual workplace aggression and victims' overall job satisfaction: A meta-analysis. *Journal of Occupational Health Psychology*, 10(2): 155.
- Leana, C. R., & Meuris, J. 2015. Living to work and working to live: Income as a driver of organizational behavior. *Academy of Management Annals*, 9(1): 55–95.
- \*Leckelt, M., Back, M. D., Foster, J. D., Hutteman, R., Jaeger, G., et al. 2016. Entering adulthood in a recession tempers later narcissism – But only in men. *Journal of Research in Personality*, 60: 8–11.
- Lee, J. J., & Ok, C. M. 2014. Understanding hotel employees' service sabotage: Emotional labor perspective based on conservation of resources theory. *International Journal of Hospitality Management*, 36: 176–187.



- \*Lei, R. F., & Bodenhausen, G. V. 2018. Economic Anxieties Undermine Support for Female (but Not Male) Political Candidates. *Analyses of Social Issues and Public Policy*, 18(1): 244–264.
- \*Lieberson, S., & O'Connor, J. F. 1972. Leadership and Organizational Performance: A Study of Large Corporations. *American Sociological Review*, 37(2): 117.
- MacKenzie, S. B., Podsakoff, P. M., & Podsakoff, N. P. 2011. Challenge-Oriented Organizational Citizenship Behaviors and Organizational Effectiveness: Do Challenge-Oriented Behaviors Really Have an Impact on the Organization's Bottom Line? *Personnel Psychology*, 64(3): 559–592.
- \*Maclean, J. C. 2015. The Lasting Effects of Leaving School in an Economic Downturn on Alcohol Use. *ILR Review*, 68(1): 120–152.
- Maner, J. K., Kenrick, D. T., Becker, D. V., Robertson, T. E., Hofer, B., et al. 2005. Functional projection: How fundamental social motives can bias interpersonal perception. *Journal of Personality and Social Psychology*, 88(1): 63–78.
- Manning, M. R., Jackson, C. N., & Fusilier, M. R. 1996. Occupational stress, social support, and the costs of health care. *Academy of Management Journal*, 39(3): 738–750.
- Manson, J. H. 2015. Life history strategy and the HEXACO personality dimensions. *Evolutionary Psychology*, 13(1): 147470491501300100.
- Margolis, J. D., & Molinsky, A. 2008. Navigating the bind of necessary evils: Psychological engagement and the production of interpersonally sensitive behavior. *Academy of Management Journal*, 51(5): 847–872.
- \*Markham, S. E. 1985. An investigation of the relationship between unemployment and absenteeism: A multi-level approach. *Academy of Management Journal*, 28(1): 228–234.

- \*Markham, S. E., & McKee, G. H. 1991. Declining organizational size and increasing unemployment rates: Predicting employee absenteeism from within-and between-plant perspectives. *Academy of Management Journal*, 34(4): 952–965.
- \*Markovits, Y., Boer, D., & van Dick, R. 2014. Economic crisis and the employee: The effects of economic crisis on employee job satisfaction, commitment, and self-regulation. *European Management Journal*, 32(3): 413–422.
- Maurer, T. J. 2002. Employee learning and development orientation: Toward an integrative model of involvement in continuous learning. *Human Resource Development Review*, 1(1): 9–44.
- Mayer, R. C., Davis, J. H., & Schoorman, F. D. 1995. An integrative model of organizational trust. *Academy of Management Review*, 20(3): 709–734.
- McCrae, R. R. 1987. Creativity, divergent thinking, and openness to experience. *Journal of Personality and Social Psychology*, 52(6): 1258.
- McKay, P. F., Avery, D. R., Tonidandel, S., Morris, M. A., Hernandez, M., et al. 2007. Racial differences in employee retention: Are diversity climate perceptions the key? *Personnel Psychology*, 60(1): 35–62.
- \*McLaren, L. M. 2003. Anti-Immigrant Prejudice in Europe: Contact, Threat Perception, and Preferences for the Exclusion of Migrants. *Social Forces*, 81(3): 909–936.
- McLaughlin, H., Uggen, C., & Blackstone, A. 2012. Sexual harassment, workplace authority, and the paradox of power. *American Sociological Review*, 77(4): 625–647.
- \*Metz, I., Kulik, C. T., Brown, M., & Cregan, C. 2012. Changes in psychological contracts during the global financial crisis: The manager’s perspective. *The International Journal of Human Resource Management*, 23(20): 4359–4379.
- Meyer, B. D., & Sullivan, J. X. 2013. Consumption and income inequality and the great recession. *American Economic Review*, 103(3): 178–83.

Miller, A. R. 2011. The effects of motherhood timing on career path. *Journal of Population Economics*, 24(3): 1071–1100.

\*Miller, D. L., Page, M. E., Stevens, A. H., & Filipski, M. 2009. Why are recessions good for your health? *American Economic Review*, 99(2): 122–27.

Miller, N. E. 1941. I. The frustration-aggression hypothesis. *Psychological Review*, 48(4): 337–342.

\*Mintz, A. 1946. A re-examination of correlations between lynchings and economic indices. *Journal of Abnormal Psychology*, 41(2): 154–160.

Mittal, C., & Griskevicius, V. 2016. Silver spoons and platinum plans: How childhood environment affects adult health care decisions. *Journal of Consumer Research*, 43(4): 636–656.

Mocan, H. N. 1999. Structural unemployment, cyclical unemployment, and income inequality. *Review of Economics and Statistics*, 81(1): 122–134.

\*Mols, F., & Jetten, J. 2016. Explaining the Appeal of Populist Right-Wing Parties in Times of Economic Prosperity: Economic Prosperity and Populist Right-Wing Parties. *Political Psychology*, 37(2): 275–292.

Morgan, L. G., & Herman, J. B. 1976. Perceived consequences of absenteeism. *Journal of Applied Psychology*, 61(6): 738.

\*Morrill, M. S., & Pabilonia, S. W. 2015. What effects do macroeconomic conditions have on the time couples with children spend together? *Review of Economics of the Household*, 13(4): 791–814.

\*Mulders, J. O., Henkens, K., Liu, Y., Schippers, J., & Wang, M. 2018. Managers' interview invitation decisions about older job applicants: Human capital, economic conditions and job demands. *Ageing & Society*, 38(4): 839–864.

- National Bureau of Economic Research. 2011. *US business cycle expansions and contractions*. <http://www.nber.org/cycles.html>.
- National Bureau of Economic Research. 2015. *The NBER's business cycle dating procedure: Frequently asked questions*.  
[http://www.nber.org/cycles/recessions\\_faq.html](http://www.nber.org/cycles/recessions_faq.html).
- Nettle, D., & Bateson, M. 2012. The evolutionary origins of mood and its disorders. *Current Biology*, 22(17): R712–R721.
- \*Noelke, C., & Avendano, M. 2015. Who Suffers During Recessions? Economic Downturns, Job Loss, and Cardiovascular Disease in Older Americans. *American Journal of Epidemiology*, 182(10): 873–882.
- \*Olzak, S. 1990. The political context of competition: Lynching and urban racial violence, 1882–1914. *Social Forces*, 69(2): 395–421.
- \*Oreopoulos, P., von Wachter, T., & Heisz, A. 2012. The Short- and Long-Term Career Effects of Graduating in a Recession. *American Economic Journal: Applied Economics*, 4(1): 1–29.
- \*Orrenius, P. M., & Zavodny, M. 2010. Mexican immigrant employment outcomes over the business cycle. *American Economic Review*, 100(2): 316–20.
- \*O'Shea, D., Monaghan, S., & Ritchie, T. D. 2014. Early career attitudes and satisfaction during recession. *Journal of Managerial Psychology*, 29(3): 226–245.
- \*Ospina, J. H., Cleveland, J. N., & Gibbons, A. M. 2019. The Relationship of Employment Scarcity and Perceived Threat With Ageist and Sexist Attitudes. *Work, Aging and Retirement*, 5(3): 215–235.
- Ostroff, C. 1992. The relationship between satisfaction, attitudes, and performance: An organizational level analysis. *Journal of Applied Psychology*, 77(6): 963.

- \*Owens, L. A., & Cook, K. S. 2013. The effects of local economic conditions on confidence in key institutions and interpersonal trust after the Great Recession. *Annals of the American Academy of Political and Social Science*, 650(1): 274–298.
- Pager, D., Western, B., & Bonikowski, B. 2009. Discrimination in a low-wage labor market: A field experiment. *American Sociological Review*, 74: 777–799.
- Palmer, T. B., & Wiseman, R. M. 1999. Decoupling risk taking from income stream uncertainty: A holistic model of risk. *Strategic Management Journal*, 20(11): 1037–1062.
- \*Parker, P. D., Jerrim, J., & Anders, J. 2016. What effect did the global financial crisis have upon youth wellbeing? Evidence from four Australian cohorts. *Developmental Psychology*, 52(4): 640–651.
- \*Patelli, L., & Pedrini, M. 2014. Is the optimism in CEO's letters to shareholders sincere? Impression management versus communicative action during the economic crisis. *Journal of Business Ethics*, 124(1): 19–34.
- Penney, L. M., Hunter, E. M., & Perry, S. J. 2011. Personality and counterproductive work behaviour: Using conservation of resources theory to narrow the profile of deviant employees. *Journal of Occupational and Organizational Psychology*, 84(1): 58–77.
- \*Pinquart, M., Silbereisen, R. K., & Körner, A. 2009. Perceived Work-Related Demands Associated with Social Change, Control Strategies, and Psychological Well-Being: Do Associations Vary by Regional Economic Conditions? Evidence from Germany. *European Psychologist*, 14(3): 207–219.
- Podsakoff, N. P., Podsakoff, P. M., MacKenzie, S. B., Maynes, T. D., & Spoelma, T. M. 2014. Consequences of unit-level organizational citizenship behaviors: A review and recommendations for future research. *Journal of Organizational Behavior*, 35(S1): S87–S119.

- Podsakoff, P. M., Ahearne, M., & MacKenzie, S. B. 1997. Organizational citizenship behavior and the quantity and quality of work group performance. *Journal of Applied Psychology*, 82(2): 262–270.
- Porter, L. W., & Steers, R. M. 1973. Organizational, work, and personal factors in employee turnover and absenteeism. *Psychological Bulletin*, 80(2): 151.
- \*Proudfoot, D., Kay, A. C., & Mann, H. 2015. Motivated employee blindness: The impact of labor market instability on judgment of organizational inefficiencies. *Organizational Behavior and Human Decision Processes*, 130: 108–122.
- \*Quillian, L. 1995. Prejudice as a response to perceived group threat: Population composition and anti-immigrant and racial prejudice in Europe. *American Sociological Review*, 586–611.
- \*Raaum, O., & Røed, K. 2006. Do Business Cycle Conditions at the Time of Labor Market Entry Affect Future Employment Prospects? *Review of Economics and Statistics*, 88(2): 193–210.
- \*Reeskens, T., & Vandecasteele, L. 2017. Hard times and European youth. The effect of economic insecurity on human values, social attitudes and well-being. *International Journal of Psychology*, 52(1): 19–27.
- \*Riek, B. M., Mania, E. W., & Gaertner, S. L. 2006. Intergroup Threat and Outgroup Attitudes: A Meta-Analytic Review. *Personality and Social Psychology Review*, 10(4): 336–353.
- \*Rinken, S. 2016. Crisis económica y sentimiento antinmigrante: El caso de Andalucía / Economic Crisis and Anti-Immigrant Sentiment: The Case of Andalusia. *Revista Española de Investigaciones Sociológicas*. <https://doi.org/10.5477/cis/reis.156.77>.
- Roberts, K. H., Hulin, C. L., & Rousseau, D. M. 1978. *Developing an interdisciplinary science of organizations*. San Francisco, CA: Jossey-Bass.

- \*Rodeheffer, C. D., Hill, S. E., & Lord, C. G. 2012. Does this recession make me look black? The effect of resource scarcity on the categorization of biracial faces. *Psychological Science*, 23(12): 1476–1478.
- Rodell, J. B., & Judge, T. A. 2009. Can “good” stressors spark “bad” behaviors? The mediating role of emotions in links of challenge and hindrance stressors with citizenship and counterproductive behaviors. *Journal of Applied Psychology*, 94(6): 1438.
- Roux, C., Goldsmith, K., & Bonezzi, A. 2015. On the psychology of scarcity: When reminders of resource scarcity promote selfish (and generous) behavior. *Journal of Consumer Research*, 42(4): 615–631.
- \*Ruhm, C. J. 2000. Are Recessions Good for Your Health? *The Quarterly Journal of Economics*, 115(2): 617–650.
- \*Ruhm, C. J. 2004a. *Macroeconomic conditions and deaths from coronary heart disease*, 25.
- \*Ruhm, C. J. 2004b. *Macroeconomic Conditions, Health and Mortality*. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w11007>.
- \*Ruhm, C. J., & Black, W. E. 2002. Does drinking really decrease in bad times? *Journal of Health Economics*, 21(4): 659–678.
- Ryan, M. K., & Haslam, S. A. 2005. The glass cliff: Evidence that women are over-represented in precarious leadership positions. *British Journal of Management*, 16(2): 81–90.
- Ryan, M. K., Haslam, S. A., Hersby, M. D., & Bongiorno, R. 2011. Think crisis—think female: The glass cliff and contextual variation in the think manager—think male stereotype. *Journal of Applied Psychology*, 96(3): 470–484.

- Sanchez, J. I., & Brock, P. 1996. Outcomes of perceived discrimination among Hispanic employees: Is diversity management a luxury or a necessity? *Academy of Management Journal*, 39(3): 704–719.
- \*Schneider, D., Harknett, K., & McLanahan, S. 2016. Intimate Partner Violence in the Great Recession. *Demography*, 53(2): 471–505.
- \*Selmer, J., & Waldstrøm, C. 2007. Work values of surviving and non-surviving managers during economic recession. *Career Development International*, 12(5): 433–445.
- Shalley, C. E., Zhou, J., & Oldham, G. R. 2004. The effects of personal and contextual characteristics on creativity: Where should we go from here? *Journal of Management*, 30(6): 933–958.
- Sherif, M., Harvey, O., White, B. J., Hood, W. R., & Sherif, C. W. 1961. *Intergroup cooperation and competition: The Robbers Cave experiment*.
- Sherif, M., & Sherif, C. W. 1953. *Groups in harmony and tension; an integration of studies of intergroup relations*. Oxford, England: Harper & Brothers.
- Shiller, R. 2000. *Irrational Exuberance*. Princeton, NJ: Princeton University Press.
- \*Shoss, M. K., & Penney, L. M. 2012. The economy and absenteeism: A macro-level study. *Journal of Applied Psychology*, 881–889.
- Silvia, P. J., Martin, C., & Nusbaum, E. C. 2009. A snapshot of creativity: Evaluating a quick and simple method for assessing divergent thinking. *Thinking Skills and Creativity*, 4(2): 79–85.
- Singh, J. V. 1986. Performance, slack, and risk taking in organizational decision making. *Academy of Management Journal*, 29(3): 562–585.
- \*Sirola, N., & Pitesa, M. 2017a. Economic downturns undermine workplace helping by promoting a zero-sum construal of success. *Academy of Management Journal*, 60(4): 1–21.



- \*Sirola, N., & Pitesa, M. 2017b. The macroeconomic environment and the psychology of work evaluation. *Organizational Behavior and Human Decision Processes*, 144(4): 11–24.
- Skarlicki, D. P., Ellard, J. H., & Kelln, B. R. 1998. Third-party perceptions of a layoff: Procedural, derogation, and retributive aspects of justice. *Journal of Applied Psychology*, 83(1): 119.
- Skarlicki, D. P., & Folger, R. 1997. Retaliation in the workplace: The roles of distributive, procedural, and interactional justice. *Journal of Applied Psychology*, 82(3): 434.
- \*Sortheix, F. M., Parker, P. D., Lechner, C. M., & Schwartz, S. H. 2019. Changes in Young Europeans' Values During the Global Financial Crisis. *Social Psychological and Personality Science*, 10(1): 15–25.
- Spector, P. E. 1986. Perceived control by employees: A meta-analysis of studies concerning autonomy and participation at work. *Human Relations*, 39(11): 1005–1016.
- Spector, P. E., & Fox, S. 2002. An emotion-centered model of voluntary work behavior: Some parallels between counterproductive work behavior and organizational citizenship behavior. *Human Resource Management Review*, 12(2): 269–292.
- \*Stein, C. H., Abraham, K. M., Bonar, E. E., Leith, J. E., Kraus, S. W., et al. 2011. Family ties in tough times: How young adults and their parents view the U.S. economic crisis. *Journal of Family Psychology*, 25(3): 449–454.
- Stewart Jr, W. H., & Roth, P. L. 2001. Risk propensity differences between entrepreneurs and managers: A meta-analytic review. *Journal of Applied Psychology*, 86(1): 145.
- \*Stoker, J. I., Garretsen, H., & Soudis, D. 2019. Tightening the leash after a threat: A multi-level event study on leadership behavior following the financial crisis. *The Leadership Quarterly*, 30(2): 199–214.

- Strobel, M., Tumasjan, A., Spörrle, M., & Welpe, I. M. 2013. The future starts today, not tomorrow: How future focus promotes organizational citizenship behaviors. *Human Relations*, 66(6): 829–856.
- \*Svaleryd, H. 2015. Self-employment and the local business cycle. *Small Business Economics*, 44(1): 55–70.
- \*Svensson, M. 2007. Do not go breaking your heart: Do economic upturns really increase heart attack mortality? *Social Science & Medicine*, 65(4): 833–841.
- \*Svensson, M. 2010. Economic upturns are good for your heart but watch out for accidents: A study on Swedish regional data 1976–2005. *Applied Economics*, 42(5): 615–625.
- Sverke, M., Hellgren, J., & Näswall, K. 2002. No security: A meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology*, 7(3): 242–264.
- Tajfel, H. 1982. Social psychology of intergroup relations. *Annual Review of Psychology*, 33(1): 1–39.
- Tajfel, H., & Turner, J. C. 1979. An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations*, vol. 33: 33–47. Monterey, CA: Brooks Cole.
- Tasselli, S., Kilduff, M., & Landis, B. 2018. Personality change: Implications for organizational behavior. *Academy of Management Annals*, 12(2): 467–493.
- \*Tausig, M., & Fenwick, R. 1999. Recession and well-being. *Journal of Health and Social Behavior*, 40(1): 1–16.
- \*Tay, L., & Harter, J. K. 2013. Economic and Labor Market Forces Matter for Worker Well-Being: Economic and Labor Market Forces. *Applied Psychology: Health and Well-Being*, 5(2): 193–208.

- \*Tella, R. D., & MacCulloch, R. 2006. Some Uses of Happiness Data in Economics. *Journal of Economic Perspectives*, 20(1): 25–46.
- Tetlock, P. E., & Mitchell, G. 2009. Implicit bias and accountability systems: What must organizations do to prevent discrimination? *Research in Organizational Behavior*, 29: 3–38.
- The National Bureau of Economic Research. 2010. *The NBER's Business Cycle Dating Committee*. <http://www.nber.org/cycles/recessions.html>.
- Treviño, L. K., den Nieuwenboer, N. A., & Kish-Gephart, J. J. 2014. (Un)Ethical behavior in organizations. *Annual Review of Psychology*, 65: 635–660.
- Triana, M. del C., Jayasinghe, M., & Pieper, J. R. 2015. Perceived workplace racial discrimination and its correlates: A meta-analysis. *Journal of Organizational Behavior*, 36(4): 491–513.
- \*Van den Berg, G. J., Lindeboom, M., & Portrait, F. 2006. Economic conditions early in life and individual mortality. *American Economic Review*, 96(1): 290–302.
- Van den Broeck, A., Ferris, D. L., Chang, C.-H., & Rosen, C. C. 2016. A review of self-determination theory's basic psychological needs at work. *Journal of Management*, 42(5): 1195–1229.
- Vander Elst, T., De Cuyper, N., Baillien, E., Niesen, W., & De Witte, H. (2016). Perceived Control and Psychological Contract Breach as Explanations of the Relationships Between Job Insecurity, Job Strain and Coping Reactions: Towards a Theoretical Integration: Job Insecurity, Perceived Control and Psychological Contract Breach. *Stress and Health*, 32(2), 100–116. <https://doi.org/10.1002/smi.2584>
- \*Van Erkel, P. F. A., & Van Der Meer, T. W. G. 2016. Macroeconomic performance, political trust and the Great Recession: A multilevel analysis of the effects of within-

- country fluctuations in macroeconomic performance on political trust in 15 EU countries, 1999-2011. *European Journal of Political Research*, 55(1): 177–197.
- VandeWalle, D., Brown, S. P., Cron, W. L., & Slocum Jr, J. W. 1999. The influence of goal orientation and self-regulation tactics on sales performance: A longitudinal field test. *Journal of Applied Psychology*, 84(2): 249.
- Varnum, M. E., Grossmann, I., Kitayama, S., & Nisbett, R. E. 2010. The origin of cultural differences in cognition the social orientation hypothesis. *Current Directions in Psychological Science*, 19(1): 9–13.
- \*Wasserman, I. M. 1983. Political business cycles, presidential elections, and suicide and mortality patterns. *American Sociological Review*, 48(5): 711–720.
- Wiesner-Hanks, M. E. 2011. *Gender in History: Global Perspectives*. John Wiley & Sons.

**TABLE 1: SAMPLE ORGANIZATIONAL CHALLENGES ARISING FROM  
INDIVIDUAL RESPONSES TO ECONOMIC CYCLES**

<i>Challenges to</i>	<i>Driven by</i>	<i>Specific workplace outcomes impacted</i>	<i>Sample research reviewed</i>	<i>Research on whether the outcome is (un)desirable for the organization</i>
<b>Individual work performance</b>	<i>Own behavior</i>	<i>Lower vigilance to organizational issues</i>	<i>Cahill, McNamara, Pitt-Catsouphes, &amp; Valcour (2015)</i>	<i>Detert et al. (2013); Edmondson et al. (2001); Lam &amp; Mayer (2014); MacKenzie et al. (2011)</i>
		<i>Increased workplace unethical behavior</i>	<i>Bianchi &amp; Mohliver (2016)</i>	<i>Treviño, den Nieuwenboer, &amp; Kish-Gephart (2014)</i>
		<i>Shifting levels of risk aversion</i>	<i>Cohn, Engelmann, Fehr, &amp; Maréchal (2015)</i>	<i>Palmer &amp; Wiseman (1999); Singh (1986); Stewart Jr &amp; Roth (2001)</i>
	<i>Others behavior</i>	<i>Decreased coworker helping</i>	<i>Sirola &amp; Pitesa (2017a)</i>	<i>Knack &amp; Keefer (1997); Podsakoff, Ahearne, &amp; MacKenzie (1997)</i>
		<i>Lower interpersonal trust</i>	<i>Owens &amp; Cook (2013)</i>	<i>Colquitt, Scott, &amp; LePine (2007)</i>
		<i>Managerial insensitivity</i>	<i>Folger &amp; Skarlicki (1998)</i>	<i>Brockner, DeWitt, Grover, &amp; Reed (1990); Margolis &amp; Molinsky (2008); Skarlicki, Ellard, &amp; Kelln (1998)</i>
<b>Individual welfare</b>	<i>Own behavior</i>	<i>Lower future focus</i>	<i>Griskevicius et al. (2013)</i>	<i>Strobel, Tumasjan, Spörrle, &amp; Welpe (2013)</i>
		<i>Lower sense of autonomy and competence</i>	<i>Dupuis &amp; Newby-Clark (2016)</i>	<i>Spector (1986); Van den Broeck, Ferris, Chang, &amp; Rosen (2016)</i>
		<i>Psychological distress</i>	<i>Giorgi et al. (2015)</i>	<i>Beehr &amp; Newman (1978); Ostroff (1992); Rodell &amp; Judge (2009); Spector &amp; Fox (2002)</i>
	<i>Others behavior</i>	<i>Increased racial tensions</i>	<i>Krosch, Tyler, &amp; Amodio (2017)</i>	<i>Sanchez &amp; Brock (1996); Triana, Jayasinghe, &amp; Pieper (2015)</i>
		<i>Ageism</i>	<i>Mulders, Henkens, Liu, Schippers, &amp; Wang (2018)</i>	<i>Finkelstein, Burke, &amp; Raju (1995); Jones et al. (2017)</i>
		<i>Increased workplace violence</i>	<i>Shoss &amp; Penney (2012)</i>	<i>Lapierre, Spector, &amp; Leck (2005); Morgan &amp; Herman (1976); Porter &amp; Steers (1973)</i>

**FIGURE 1**

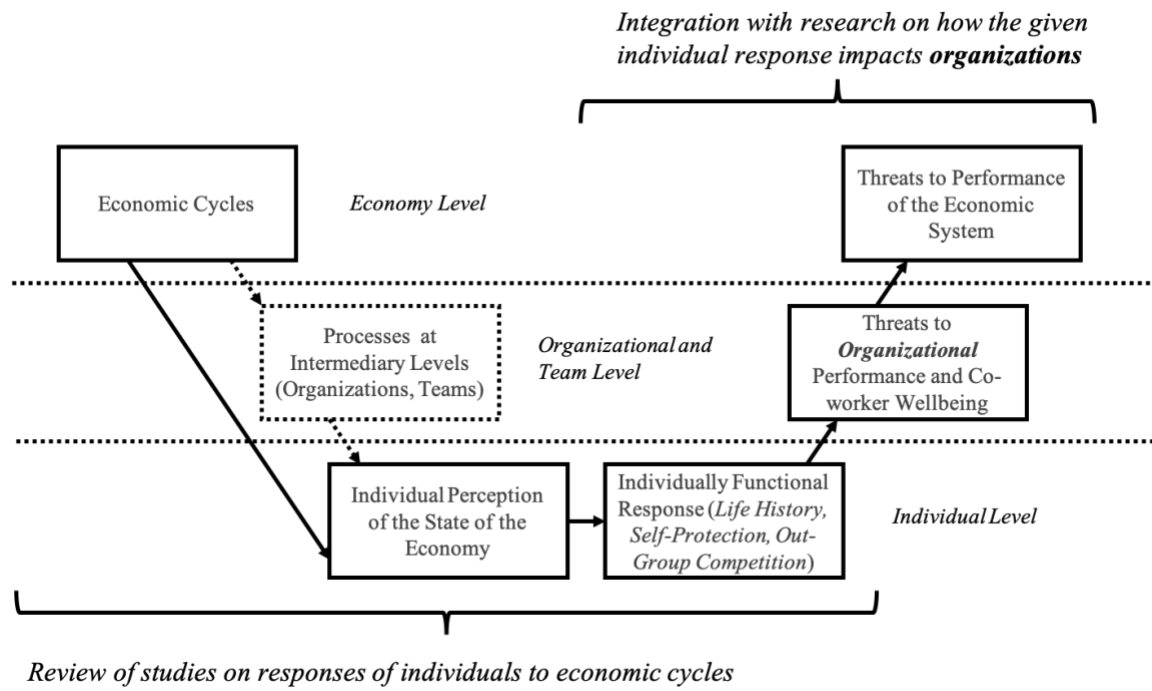


Figure 1. Multilevel model of individual responses to economic cycles and their relevance to organizations.