How Best-Self Activation Influences Emotions, Physiology and Employment Relationships

ABSTRACT

It may be possible to offer people a new understanding of their best-self concepts, leading to positive personal and social change. We developed theory about how best-self activation can lead to both immediate and long-term outcomes through recursion, interaction, and subjective construal between the self concept and the social system. In two lab experiments and a field experiment in a global consulting firm, we tested the hypotheses by offering people reflections on times they were at their best. Results confirmed that best-self activation inspired improvements in people's emotions, resistance to disease, resilience to stress and burnout, creative problem solving, performance under pressure, and relationships with their employer. Results also revealed that best-self activations are more effective in creating improvements when they feature information from one's social network rather than personal reflections.

Keywords: best-self activation; resilience to stress; employee socialization; psychological contracts

How Best-Self Activation Influences Emotions, Physiology and Employment Relationships

How would you feel if you could hear your own eulogy while you were still alive? You might feel a jolt of pride and positive emotions as you listened to people who matter to you crystalizing the best version of you (Sheldon and Lyubomirsky, 2006). You might be struck by the impact you made on these people's lives, and feel gratitude that they took time to write meaningful and appreciative stories about you.

Your immediate positive reactions to your eulogy could lead to longer-term changes. After all, when your mental representation of your best-self is activated, it becomes more accessible, and you will likely find more opportunities to act accordingly in the future (Cross and Markus, 1990). We also know that positive emotions prompt more creative information processing (Fredrickson, 2001), resulting in better decisions (Ashby and Isen, 1999) and more productive responses to stress (Creswell et al., 2005). Gratitude creates an urge to give something back (Grant and Gino, 2010, Fredrickson, 2013). Thus, best-self activation can lead to behaviors and interaction patterns that make you more engaged with people, more creative, and better able to perform under pressure. These behaviors, in turn, can affect how others see you as you negotiate an identity that is consistent with your best-self concept.

Fortunately, we don't need to wait for our eulogies to unleash this generative cycle. Roberts, Dutton, Spreitzer, Heaphy and Quinn (2005) proposed a process aimed at helping people realize their potential by encouraging them to reflect on who they are at their best. In their "Reflected Best Self" exercise, a person receives written stories from significant others (friends, family members, and coworkers) about times he or she was at his or her best. The stories include "examples of the person when he or she is making a distinct and extraordinary contribution – of when and how he or she creates the most value for the system" (Roberts et al., 2005).

Conceptually, this feedback serves as an appreciation jolt – a surprising event that "disrupts expectations for the future, induces positive emotion, and also may engage physiological changes" (Roberts et al., 2005). Like hearing your own eulogy, this series of stories may offer recipients a different narrative about themselves by helping them see the impact they are capable of making on others.

Despite the potential power of narrative strengths-based feedback for individuals and the organizations that employ them, this type of feedback is exceedingly rare (Spreitzer, 2007). Moreover, little empirical evidence is available on either the short-term or long-term effects of best-self activation. In one study, Spreitzer, Stephens, and Sweetman (2009) conducted a field quasi-experiment with 108 adolescent leaders and found that feedback from the combination of professional and personal sources was more impactful than feedback from only professional sources. Cable, Gino, and Staats (2013) studied a call center in India, where new employees were asked to reflect on and discuss their best selves (e.g., "Reflect on a specific time—perhaps on a job, perhaps at home—when you were acting the way you were 'born to act'). Results showed that for employees assigned to this condition, both customer satisfaction and employee retention improved six months later compared to socialization that emphasized organizational identity or skills training. In a follow-up lab study, results showed that the effect was due to feelings of authentic self-expression increasing when employees' best-self concepts were activated.

These incipient results suggest that it may be possible for organizations to help employees refocus their narratives about their self concepts, leading to work engagement and performance. This research direction is important since it simultaneously addresses both humanistic issues (i.e., encouraging authenticity) and economic concerns (i.e., organizational success). However, three important holes remain in the literature which we address in this paper.

First, research is needed to help explain what appear to be long-term organizational effects of small positive psychology interventions. For example, Cable et al. (2013) showed that a one-hour best-self exercise on the first day of socialization influenced employees' behavior for the better over the course of six months – a much longer time period than could be affected by an initial burst of positive emotions (Ashby and Isen, 1999, Fredrickson, 2001). How is this possible? Theory and research are needed to link immediate changes in individuals' emotions to sustainable changes in their mindsets and behaviors that can sustain long-term effects. We therefore build on Roberts et al.'s (2005) pioneering best-self work to develop and test a conceptual model of how emotional, physiological, and cognitive changes create a positive feedback loop with long-term implications.

Second, no research has examined how best-self activation might affect the way employees construe their employment relationships. Conceptually, when an employer highlights an employees' best-self beyond any specific job it signals a less transactional relationship, particularly in the early stages of relationship development (Robinson, 1996). Moreover, emphasizing employees' best selves encourages authentic self-expression at work (Roberts et al., 2005, Cable et al., 2013), which makes people more identified and socially integrated (Swann, Milton, and Polzer, 2000, Polzer, Milton, and Swann, 2002). As such, best-self activation may change the narrative that employees develop about the employment relationship, with long-term consequences for the stability of the bond.

Finally, although Cable et al. (2013) demonstrated sustained effects of a best-self intervention, they focused on employees' own personal reflections; that is, employees wrote about times they felt they were at their best from their own perspective. Conceptually, this is very different from a reflected best-self activation, where recipients learn about themselves

through the mirror of others (Roberts et al., 2005). This also is an important practical issue, because reflections that come from extended social networks are more arduous and invasive to obtain, but should have a greater impact than personal reflections. We found no research that has compared the effects of personal reflections relative to best-self activation from others.

We address these limitations by developing and testing theory about the immediate and long-term effects of best-self activation. After developing a feedback cycle model, we examine in two lab experiments how best-self activation affects people's emotions, physiology, and subsequent ability to innovate, cope with stress, and perform under pressure. We then conduct a field experiment with a sample of recently-hired consultants to examine how best-self activation affects the narrative that newcomers' develop about their employment relationship, their burnout, and their intentions to quit.

Theory Development

A reflected best-self activation gives individuals new input from their social network about who they are when they are making their maximum contribution. As such, the intervention can sharpen a person's best-self concept, defined as the "cognitive representation of the qualities and characteristics the individual displays when at his or her best" (Roberts et al., 2005, p. 713). By increasing the accessibility of people's best-self concepts, the intervention can change individuals' self-knowledge structures, which are critical in explaining how and why people change what they do and how they feel (Markus and Nurius, 1986, Ibarra, 1999). This is because people's self-conceptions (a) shape how they approach future tasks by spurring anticipation and simulations of task performance, and (b) focus them on specific thoughts and feelings that affect their ability to connect with others and accomplish relevant tasks (Cross and Markus, 1994, Roberts et al., 2005).

Building on Cohen and Sherman (2014), we propose that when organizations activate employees' best-self concepts, they touch off a feedback loop between the self-system and the social system that propagates adaptive outcomes over time. A self system is an individual's collection of self-perceptions; a social system includes the set of relationships an individual has with other people within a particular context such as a family or an organization (Wilson, 2011, Cohen and Sherman, 2014). As shown in Figure 1, the feedback loop starts with stories that activate people's best self-concepts – that is, a set of recollections causes people to reflect on who they are when they are at their best, the impact they can have on others, and how they feel when they approach their potential. The activation stories highlight actual episodes and past behaviors, not just hopes for what might be possible. This is important because it means that the memories evoked by these episodes are vivid and personal, producing strong emotional responses that induce changes in self-knowledge (McAdams, 1988, Poole, Gioia, and Gray, 1989). We propose that activating people's best-self concepts puts in motion immediate adaptive outcomes in terms of emotions, physiology, and cognitions that in turn lead to longer-term changes to their social system.

Immediate Adaptive Outcomes of Best-Self Activation

Emotions. Reflecting on new input from our social network about our positive impact should create positive emotions. People experience joy, for example, when receiving a pleasant surprise (Roberts et al., 2005, Fredrickson, 2013), which should be caused by appreciative stories from close social network members. People feel inspiration when they "witness human excellence in some manner," such as recalling specific, vivid times they have been at their personal best (Fredrickson, 2013: 6). People feel proud when they are responsible for a socially-valued positive outcome, which should be highlighted by stories when they are making a positive

impact on others (Tracy and Robins, 2007). In short, the best-self activation transports

information about a person at his or her best, which theoretically should promote positive

emotions such as joy, enthusiasm, excitement, pride, awe, inspiration, and compassion (Mandler,

1984, Nummenmaa and Niemi, 2004, Roberts et al., 2005, Fredrickson, 2013). Thus, we

hypothesize:

     H1: Individuals who receive best-self activation will experience more positive emotions

compared to individuals who do not receive best-self activation.

     Physiology. According to Fredrickson's (2001) "broaden and build" theory, positive

emotions not only feel good but are evolutionarily functional because they build people's

resources for survival. Specifically, positive emotions broaden people's scope of awareness to

include a wider array of thoughts, actions, and perceptions than is typical. This broadened

mindset is basic to discovery of new knowledge, new alliances, and new skills.

     One useful by-product of the broadened mindset is the "undoing effect," which refers to

the process whereby positive emotions dismantle the debilitating effects of stress and negative

emotions. As noted by Fredrickson (2013), "To the extent that positive emotions broadened an

individual's accessible repertoire of thoughts and action urges, they would also serve to loosen

the hold that any particular negative emotion might gain on an individual's mindset." For

example, positive emotions can help individuals cope with social evaluation stress, making them

more resilient (Lazarus and Folkman, 1984, Heaphy and Dutton, 2008). Under normal

circumstances, people tend to narrow their attention on an immediate threat (e.g., the possibility

of failure), a response that promotes swift self-protection and, in the face of acute dangers,

survival (Pratto and John, 1991, Tugade and Fredrickson, 2004). Stress impairs cognitive

functioning (Liston, McEwen, and Casey, 2009), and because acute danger is uncommon in

organizational life, leads to diminished processing without aiding survival.

Physiologically, this means that best-self activation should undo the cardiovascular

responses associated with negativity to baseline levels of arousal (Fredrickson, 2000), and

therefore increase one's stress resilience and performance under stress (Fredrickson et al., 2003).

Specifically, we expect best-self activation to affect the influence of the vagus nerve, which

regulates the "resting state" of the body's internal organ systems that operate on a largely

subconscious level, such as heart rate (Porges, 1995). The tonic influence of the vagus nerve is

measured by respiratory sinus arrhythmia (RSA), which has been shown to be associated with

positive social emotions (Kok et al., 2013). Research also shows that when facing an intense

social evaluation— for example, giving an impromptu speech in front of a judgmental

audience—those who were self-affirmed (by reflecting on an important personal value) no longer

displayed elevation of the stress hormone cortisol (Creswell et al., 2005, Sherman et al., 2009).

Thus, we also predict best-self activation will increase recipients' stress resilience in a

threatening situation (measured by galvanic skin conductance reactivity reflecting the activation

of the sympathetic nervous system; Shannon et al., 2007).

Positive emotions resulting from social connections appear to be particularly powerful in

people's health (Dutton and Heaphy, 2003). For example, research has shown that low social

integration is related to greater risk for infectious illness (S. Cohen et al., 1997), and that social

connectedness improves immune-system responses (S. Cohen, 2001, Pressman et al., 2005).

Given that the best-self activation stories are written by important people in one's social

network, we hypothesize that the resulting positive emotions and social engagement strengthen

one's immune system (measured by antibody for mucosal immunity and intestinal homeostasis

in saliva; Mantis, Rol, and Corthésy, 2011). Based on the evidence and logic presented above, we hypothesize:

H2: Individuals who receive best-self activation experience (a) improved vagal tone, (b) greater stress resilience, and (c) better immune-system responses compared to those who do not receive best-self activation.

Cognition. The broadening effect and stress resilience emerging from best-self activation should improve creativity and problem solving. When people are less encumbered by physiological reactions to threat and stress, they can better marshal their cognitive resources to meet the demands of the task at hand (Creswell et al., 2013) and exert self-control in a depleting situation (Schmeichel and Vohs, 2009). Moreover, as noted by Fredrickson (2013), joy creates the urge to play and experiment, resulting in innovation and experiential learning. Indeed, a substantial body of research demonstrates that positive affect improves creative problem-solving by helping people access alternative cognitive perspectives and organize ideas in new ways (Isen, Daubman, and Nowicki, 1987, Ashby and Isen, 1999, De Dreu, Baas, and Nijstad, 2008). Positive emotions also are associated with greater creativity and innovation (Côté, 1999, Amabile et al., 2005). Thus, we hypothesize:

H3: Individuals who receive best-self activation achieve (a) better performance and (b) greater creative problem-solving under pressure compared to those who do not receive best-self activation.

Finally, although we could find no empirical research that has examined this issue, the changes stemming from best-self activations should be greater when they feature stories generated by social networks instead of stories people generate themselves. Conceptually, individuals' relational context has a major effect on how they define and feel about themselves

(Granovetter, 1985, Ely, 1994, Roberts et al., 2005), such that others reflect our self-concepts to us (Cooley, 1902). "Family members, friends and acquaintances, and organizations provide us with feedback about who we are, and this information is integrated into our self-concept" Roberts et al (2005). It also is more likely that, as compared with stories people generate themselves, stories from significant people in a network will produce greater positive emotions, such as love and pride, because of the social connection created by the stories. Since strong emotional responses induce changes in self-knowledge (McAdams, 1988, Poole, Gioia, and Gray, 1989), we hypothesize that best-self activation stories from a social network will be more impactful than self-generated stories.

H4: Best-self activation featuring stories generated by an individual's social network lead to better performance under pressure than self-generated stories.

Best-self Activation and Social System Effects

So far, our theorizing has focused on how best-self activation ignites immediate adaptive outcomes in terms of emotions, physiology, cognitive processing, and performance under pressure. However, Cable et al.'s (2013) finding that a one-hour best-self intervention lasted for at least six months is consistent with self-affirmation interventions where the effects have lasted for years (Cohen et al., 2009, Sherman, 2013). A growing body of research shows that brief interventions can have large and long-term effects when they address key psychological processes (Wilson, 2011). These long-term effects raise the question of how the intervention changes the person in the short run, and how these short-run changes may lead to modifications in the person's social environment that could sustain the impact of the intervention.

As shown in Figure 1, we build our model around Cohen and Sherman's (2014: 341) cycle of adaptive potential, which features "a positive feedback loop between the self-system and

the social system that promotes adaptive outcomes over time." There are three reasons this cycle can take over and lead to better outcomes long after the original intervention has been forgotten. First, *recursion* can occur, whereby the output of a process, such as activating the best-self, can perpetuate itself by cycling back as its input (Wilson and Linville, 1982). For example, after a best-self activation, a person could experience positive emotions such as joy that leads to better problem solving performance which affirms the self, leading to yet more positive emotions and performance, further affirming the self, and so on. Likewise, pride emerges when people accomplish something important to them (Tracy and Robins, 2007), increasing the role of achievement in the self-concept and an urge to fantasize about even bigger accomplishments (L. A. Williams and DeSteno, 2008), which leads to a cycle of greater goals and pride. Recursion from emotions back to self-schemas is particularly likely when with strong emotional responses, which induce schematic change (Poole, Gioia, and Gray, 1989). Recursion is represented in Figure 1 as the feedback loops from the adaptive outcomes back to the self-system.

Second, *interaction* can occur, whereby the output of a process can interact with other processes in the environment. Early advantages can channel people into subsequent experiences that perpetuate and broaden these advantages (Merton, 1948). For example, when employees' best selves are activated, they may negotiate identities that lead peers and supervisors to expect exemplary behavior from them (Swann, 1987, Ibarra and Barbulescu, 2010, Cable et al., 2013). Employees who are more creative and engaged due to their best-self activation may be more likely to be placed in challenging roles, which open new opportunities and further raise their engagement. Interaction is represented in Figure 1 as the feedback loops from the self-system to the social system and back to the self-system.

Third, interventions can affect people's *subjective construal,* or interpretations of their environment, which changes the way they respond to that environment (Ross and Nisbett, 2011, Sherman, 2013). Thus, best-self activation may have lasting effects by changing people's narratives about their social environments and the way they filter information about those environments, which affects their subsequent attitudes and behaviors (Wilson, 2011). In the next section, we apply this logic to theorize why activating employees' best-self concepts may transform how they construe their relationship with their employers.

Psychological Contract Narratives

Employees develop narratives about the meaning of their employment relationship to them. In fact, one of the most important concepts in work organizations is the psychological employment contract—an employee's narrative about the unwritten promises and obligations implicit in his or her relationship with the employing organization (Simon, 1951, Argyris, 1960, Thompson and Bunderson, 2003). A psychological contract narrative is *transactional* in nature when it is based on the exchange of primarily economic currency; the employee contributes time and skills toward a narrow, specified set of responsibilities in exchange for pay and short-term guarantees of employment (Macneil, 1985, Rousseau and Parks, 1993). Transactional narratives imply an instrumental model of human nature, whereby employees contribute as little effort and time as possible for maximum economic gain (Rousseau and Parks, 1993, Thompson and Bunderson, 2003).

Other employees construe their employment relationship differently, such that they focus on long-term potential for personal growth and membership in an important identity group where they can express their values (Thompson and Bunderson, 2003). These narratives incorporate socioemotional currency and more relational in nature (Rousseau and Parks, 1993). Many leaders

seek relational over transactional contracts because they need employee flexibility and open-ended inputs, particularly for creative work which is difficult to script in advance, and for changes which are difficult to predict (Tsui et al., 1997). Unfortunately, it is the norm for new employees to experience "contract drift" (Rousseau and Parks, 1993: 36), such that their narratives become increasingly transactional across the first year of employment (Robinson and Rousseau, 1994, Robinson, 1996). For example, a newcomer who expects opportunities for personal growth may find that her supervisor has no time or patience for personal development, and is more concerned with protocol than innovation. Conceptually, as employment narratives becomes increasingly transactional, work becomes less meaningful to employees and offers less opportunity for personal engagement or identity expression (Kahn, 1990, Pratt, 2000).

Thus, as employees' narratives about the relationship become increasingly transactional, they become predisposed to quit and seek out other employment options (Robinson and Rousseau, 1994). Moreover, as employees disengage themselves and feel that they are "just working for the money," they are likely to experience more emotional exhaustion and burnout (Maslach, Schaufeli, and Leiter, 2001). This is because the root cause of burnout is feeling that the things we do are not meaningful or reflective of our identities (Pines, 1993). Conversely, when employees can express important elements of their identities, it creates a buffer against stressors and emotional exhaustion (Britt and Bliese, 2003, Grant, Berg, and Cable, 2014).

We argue that when an employer activates newcomers' best selves, they reduce the drift toward transactional narratives about the relationship. Our logic emerges, in part, from the fact that best-self activation stories are written by an employee's non-work social network. When an employer highlights and values an employee as a person, beyond his or her immediate job-related functionality, the employer signals a non-transactional relationship. Moreover, because

best-self activation highlights the employee across different social contexts, it encourages

authentic self-expression (Roberts et al., 2005, Cable et al., 2013). For many employees, self-

expression at work is a non-transactional, nonfinancial reward (Pratt, 2000, Grant, Berg, and

Cable, 2014), yet employees often believe they cannot be authentic at work (Hochschild, 1979,

Grandey, 2003). Authentic self expression at work also increases self verification, making

employees more identified and socially integrated with the group (Swann, Milton, and Polzer,

2000, Polzer, Milton, and Swann, 2002). Thus, we hypothesize that best-self activation halts the

drift toward transactional employment narratives, which in turn reduces burnout and quitting

intentions. Drawing on the logic for Hypotheses 4, best-self activation reflected from social

networks should decrease transactional drift more than personal reflections.

H5: Newcomers' psychological contract narratives become increasingly transactional

over the course of their first year of work with an organization.

H6: Newcomers who receive best-self activation are less likely to drift toward

transactional narratives than employees who do not experience best-self activation.

H7: Newcomers who receive best-self activation are (a) less likely to experience burnout

and (b) less predisposed to quit than employees who do not receive best-self activation, with the

effect mediated by reduction in transactional narratives.

H8: Best-self activations featuring stories generated by social networks will reduce the

drift toward transactional narratives more than personal reflections.

To summarize, we developed an unfolding model where best-self activations touch off a

feedback loop between the self-system and the social system that creates positive outcomes over

time.

Overview of the Research

We tested our theoretical model and predictions in three studies, using data from both the laboratory and the field. In Study 1, we provide some preliminary evidence for the effects of best-self activation on individuals' performance under pressure (H3a) and examine the effect of social network stories versus personal reflections (H4). After providing this initial confirmation, we describe Study 2 in which we examine the emotional, physiological, and cognitive adaptive outcomes of best-self activation (H1-H3) that can create greater performance under pressure. Finally, in Study 3, we examine how best-self activation changes employees' employment narratives, burnout, and quitting intentions (H5-H7), again investigating the effect of social network stories versus personal reflections (H8).

STUDY 1

In Study 1, we conducted a lab study where we recruited participants who agreed to bring a partner with whom they had a close relationship. In the treatment condition, the partners wrote stories about the focal individuals, which we delivered to them to read before they performed a stressful task. In the control condition, the focal individuals instead wrote their own impact episodes without the partner's input. This design isolates the effect of best-self activation featuring stories generated by an individual's social network versus self-generated stories.

Method

Sample and procedures. We recruited participants and their partners to participate in a study at the Harvard Decision Science Laboratory. A total of 123 participant-partner pairs (246 individuals; M_{age}=22.24, SD_{age}=4.63; 56% male) participated in an hour-long study and received $20. After arriving at the laboratory, the pairs (focal participant and partner) were randomly assigned to one of the two conditions.

Best-self activation. In the treatment condition, the partner hand-wrote a description of an episode in which they witnessed the focal participant at his or her best. Then we delivered the note to the focal participants, who read and reflected on the partner's episode. An example of an episode is: "You are unafraid to be intelligent. So many people, particularly women, are afraid to be the smartest person in the room. You are a wonderful role model for all bright, quick, and articulate women in the world, showing that it is more than ok to be clever and to allow people to see that you are smart. I can think of a time when you won the argument with class, and I found it inspirational." In the control condition, the study partner wrote a neutral story about his or her daily routine. The focal participants in this condition wrote a narrative about a time when they were at their best.

As our performance measure, we examined how participants responded to a stressful socially-evaluative situation by using a mock job interview task adapted from the Trier Social Stress Test (Sheldon and Lyubomirsky, 2006). Participants were asked to prepare to be interviewed for their ideal job. They prepared for the mock interview for five minutes and then, in front of two interviewers, performed a three-minute speech that they had written about why they should be hired for this job. The interviewers consisted of one male and one female, and all interviews were videotaped. Two judges who were blind to condition evaluated participants' overall performance in the interviews based on the quality of the participants' speeches as well as their presentation on a 9-point scale (Cuddy et al., 2015). Inter-rater reliability was high (Krippendorff's $\alpha=0.86$).

Analyses and Results

In our analyses, we compared focal participants who received best-self stories from their partner ("Receivers") to a control group (study partners who wrote a neutral story; "Controls")

and to focal participants who wrote their own impact episodes ("Authors"). To test H3a and H4, we used planned contrasts ("Receivers" as compared to "Controls" and "Authors"). In support of our hypotheses, "Receivers" ($M_{judge\text{-}rated=}$6.52, SD=1.73) outperformed the "Controls" ($M_{judge\text{-}rated}$=5.89, SD=1.72) and the "Authors" ($M_{judge\text{-}rated}$=5.89, SD=1.92) combined, t(182)=2.24, p=0.03, d=0.35. These results support H3a and H4, and are reported in Figure 2.

Discussion

Results from Study 1 offer initial evidence to demonstrate that individuals receiving feedback about their best self from one person in their social network performed better in a stressful situation than individuals who developed their own best-self episodes, as well as individuals in a pure control group. As such, Study 1 suggests that activating people's best-self concepts triggers immediate adaptive outcomes. However, Study 1 offers little information about the emotional, physiological, or cognitive changes that are put into motion by best-self activation that can produce better performance under pressure. We address this issue in Study 2, where we expand the size of the social network contributing activation stories and compare these effects to a pure control condition in which participants received no best-self activation.

STUDY 2

In Study 2, we examined the effect of best-self activation at an intrapsychic level. First, we measured participants' emotions before and after the intervention, and tested for changes in people's reported emotions. We also used psychophysiological methods to gather autonomic nervous system responses (e.g., heart rate variability and skin conductance) because these measures provide important insights about stress resilience. Next, we collected saliva samples to examine whether best-self activation can affect health by increasing an antibody for mucosal immunity and intestinal homeostasis. Finally, we used two tests of creativity to examine whether

best-self activation increases nonlinear thinking under pressure, and examined participants'
responses to social stress.

Method

Sample and procedures. We invited a large sample of participants from the
Boston/Cambridge area to fill out an online survey to determine their eligibility for this study.
This prescreening procedure included questions about their employment status, seniority at work,
health conditions (related to cardiovascular or neuroendocrinological disorders), and
demographics. Seventy-five individuals (M_{age}=38.72, SD=14.92; 45% male) who were currently
employed full-time with at least three years of work experience were invited to participate in the
90-minute laboratory study. They were paid $30 at the end of the study.

Before the study, we randomly assigned participants to either the treatment or control
condition. We asked those in the treatment condition to send emails to their friends, family, and
coworkers requesting three episodes describing when they witnessed the participant at his or her
best. These emails included a link to an online survey for the feedback providers that allowed the
researchers (and not the participants) to receive and compile all stories about each participant
from the episode providers. This intervention was developed based on the reflected best-self
exercise (Harzer and Ruch, 2012a, 2012b). An average participant had 1.78 episode providers
(SD=2.43), and the average number of best-self stories was 4.05 (SD=5.60). Individuals in the
control condition were not asked to do anything prior to their participation in the laboratory
portion of the study.[1]

---

[1] After receiving the stories from the treatment group, we scheduled laboratory sessions for all
participants between 2 PM and 6 PM, and sent out a reminder a day before they were to appear in the
laboratory. Because of potential effects on endocrine levels, we asked participants to refrain from
engaging in strenuous exercise, drinking alcohol/caffeine, eating dairy products, smoking, or taking
nonprescription medication on the morning of the appointment, or brushing their teeth at least 1 hour
before the experiment.

The day of the laboratory session, participants were seated in individual cubicles with electrodes and sensors attached to their bodies so that we could measure their skin conductance and heart rate. In addition, we collected two saliva samples to measure participants' secretory immunoglobulin A (sIgA) at the baseline and after our key manipulation.

Best-self activation. After watching a neutral five-minute video and answering questions about their emotions, each participant received an envelope which prompted either the control condition or the best-self activation. Participants in both conditions spent 15 to 20 minutes on their tasks and then answered questions about their current emotions. The booklet used in the control condition was a writing task asking participants' about their day-to-day organizational routines. The booklet used in the best-self condition first asked participants to engage in personal reflection and write about specific episodes when they felt they were at their best. After completing their self-reflection, individuals read the stories from others about specific times they made an impact on a person who was significant to them. An example story from a feedback provider is: "I remember the time when you stayed up all night to make sure that I knew I was worth more than what my high school bullies would try to make me believe. Your compassion and words allowed me to feel loved in a world that is often cruel. You reminded me of my potential to be a great yet humble person. During those blinding moments, you showed me a lot more about myself that I might not have known until years later."

Measures

Self-reported emotions. The adapted version of the Positive and Negative Affect Scale (Watson, Clark, and Tellegen, 1988) was used to measure the level of discrete emotions at baseline and immediately after the writing task. Participants indicated how much they felt each emotion "right now" using a 7-point scale (from 1="clearly does not describe my feelings" to

7="clearly describes my feelings"). In addition to seven items of the positive emotions from the original PANAS (determined, happy, amused, strong, enthusiastic, excited, proud), five items were added to capture specific self-transcendent emotions that were hypothesized to be related to an experience of a jolt, such as feeling awe, inspired, elevated, astonished, or compassionate. We calculated summary variables for each participant representing pre- and post-intervention positive affect (α=0.92; 0.96).

Autonomic nervous system (ANS) measures. Throughout the experiment, skin conductance responses and heart rate were measured using the Biopac system (Biopac, Inc., Santa Barbara, CA). Skin conductance levels are associated with indices of arousal, attention, fear, and anxiety (Mendes, 2009). To measure skin conductance (activity of the sweat glands), experimenters placed two disposable pre-gelled adhesive electrodes on the middle volar surfaces of the first and second fingers of a participant's nondominant hand. Through the use of a BioNex amplifier system (Mindware Technologies, Gahanna, OH), raw skin conductance measures were amplified with a gain of 25 micro-mho/V, a low-pass filter set to 5Hz, and a sampling rate of 1000Hz. These data were ipsatized (i.e., transformed to deviations from one's physiological baseline and standardized within each participant) to control for physiological variability across participants (See Bush, Hess, and Wolford, 1993). Four participants were excluded (only for this variable) because they exhibited no variation in skin conductance over time. To measure heart rate and heart-rate variability through electrocardiogram recordings, experimenters placed three disposable adhesive electrodes on each participant's torso. This measured vagal tone using respiratory sinus arrhythmia (RSA; Porges, 1995) to capture the vagal influences on the heart. RSA was calculated as heart-rate variability in the high-frequency (respiratory) band of the R-wave to R-wave sequence (0.14–0.40 Hz) in accordance with standards of measurement (Task

Force of the European Society of Cardiology and the North American Society of Pacing and

Electrophysiology, 1996).

Immune-reactivity hormone. We measured secretory immunoglobulin A (sIgA) as an

indicator for immune-reactivity, since it has been shown to fluctuate based on the changes in

affect over time (Stone et al., 1987). SIgA is a type of antibody that defends against infections

(i.e., the common cold) by interfering with bacterial and viral adherence to mucosal surfaces.

After watching the baseline video, participants were given instructions for using the Salimetrics

Oral Swab (SOS) kit. Each participant held an oral swab under his or her tongue and, once the

swab was fully saturated, placed it in an individually labeled tube. Participants repeated the same

procedure for the second swab, which was requested 25 to 30 minutes after both treatment and

control groups completed their respective writing tasks. All samples were stored at -20 degrees

Fahrenheit until shipment on dry ice to Salimetrics for biochemical analysis of the concentration

of salivary sIgA. After these salivary responses were assayed, they were log-transformed to

approximate normal distribution and ipsatized. Two participants' data were excluded (only for

this variable) because there was not enough saliva to be assayed.

Creative problem-solving. We presented two problem-solving tasks in random order.

One task was the Duncker candle problem (Duncker, 1945, Glucksberg and Weisberg, 1966)

with a time constraint of three minutes. It measured nonlinear thinking (i.e., the ability to see

objects as performing atypical functions; (Maddux and Galinsky, 2009) and was coded as a

binary variable (1="solved," 0="did not solve"). Participants also were asked to generate as

many uses of a newspaper as possible in three minutes (Guilford, 1950, Tadmor, Satterstrom,

and Jang, 2012), we coded the brainstorming output according to fluency (the total number of

distinct uses participants generated), flexibility (the number of different categories generated),

and novelty (the mean of coders' ratings of the overall creativity of each individual's total list of ideas on a scale from 1="not creative at all" to 7="very creative", $r = 0.86$; ICC(2) = 0.92). After confirming that all three methods yielded similar outcomes, we created a composite variable.

   Social stress. To measure social stress, we examined participants' physiological responses to social exclusion using the "CyberBall" game (Williams and Jarvis, 2006). In this game, subjects play a ball-throwing game on their computer screen with other players. Participants received the ball several times at the beginning of the game and then not again for the duration of the game (35 throws total), a pattern that can lead them to feel ostracized (Williams and Jarvis, 2006).

Results

   Table 1 reports means and standard deviations for the key variables in this study as well as their zero-order correlations. Using the self-reported measures collected in the initial questionnaire, we first confirmed that participants in the treatment and the control groups did not experience significantly different emotions from one another at baseline. For baseline affect, there was no difference across different groups in positive affect, $t(71)=0.76$, $p=0.45$, $d=0.19$. This result suggests that the individuals who were assigned to the treatment and the control groups did not differ significantly from each other at the baseline.

   Emotions. We used random-effects regression models to control for the lack of independence of two emotion measurements within the same participants. A summary variable for positive emotions from PANAS was entered as a dependent variable. Time (baseline vs. after manipulation) and condition (treatment vs. control) were entered as predictors. There was a marginally significant main effect of time on positive affect, B=−0.16, $SE=0.09$, $p=0.08$, but no main effect of condition was found, B=0.15, $SE=0.20$, $p=0.45$. Results revealed a significant

interaction between treatment and time, B=1.07, *SE*=0.13, *p*<0.001. Although positive affect for controls actually decreased significantly from pretest ($M_{pretest}$=2.83, *SD*=0.89) to posttest ($M_{posttest}$=2.59, *SD*=1.00), *p*=0.02, *d*=0.34, positive affect increased significantly for the treatment group from pretest ($M_{posttest}$=3.03, *SD*=0.72) to posttest ($M_{pretest}$=3.78, *SD*=0.73), *p*<0.001, *d*=1.40.[2] These results are shown in Figure 3, and support H1.

Physiology (vagal tone, arousal under stress, and immunity). We repeated the same random-effects regression analyses for the levels of vagal tone (RSA), physiological arousal (skin conductance), and immunity (sIgA) as dependent variables. For vagal tone, neither a main effect of time, B=−0.18, *SE*=0.20, *p*=0.36, nor of treatment, B=0.00, *SE*=0.21, *p*=0.99, was found, but there was a significant interaction between the two, B=0.62, SE=0.29, *p*=0.03. Mirroring the results above for positive emotions, RSA for controls did not increase from pretest ($M_{pretest}$=0.05, *SD*=0.84) to posttest ($M_{posttest}$=−0.13, *SD*=0.96), *p*=0.38, *d*=0.21; for the treatment group RSA increased significantly from pretest ($M_{pretest}$=0.05, *SD*=0.78) to posttest ($M_{posttest}$=0.48, *SD*=0.86), *p*=0.03, *d*=0.53, as Figure 4 shows. These results support H2a.

Using the stress-inducing periods in the problem-solving task and Cyberball, we tested whether individuals in the best-self condition experienced less negative physiological arousal than those in the control condition. We tested the effect of treatment across three time points (baseline, cognitive task, and social stress task). There was a main effect of treatment, B=0.64, *SE*=0.20, *p*=0.001, as well as a significant main effect of time (for baseline vs. cognitive task, B=1.58, *SE*=0.19, *p*<0.001; for baseline vs. social stress task, B=1.38, *SE*=0.19, *p*<0.001). More importantly, there was a significant interaction between treatment and time during the cognitive task, B=–0.73, *SE*=0.28, *p*=0.009, and during the social stress task, B=–0.70, *SE*=0.28, *p*=0.012,

---

[2] Separate analyses for the PANAS items and self-transcendent emotion items (e.g., compassionate) yielded the same patterns of results.

in support of H2b. The increase in skin conductance levels from the baseline to the cognitive task was more pronounced for the control condition (M_{change}=1.59, SD=1.21) than for the treatment condition (M_{change}=0.85, SD=1.58), p=0.029, d=0.54. Similarly, the increase from the baseline to the social stress task was also more pronounced for the control condition (M_{change}=1.38, SD=1.42) than for the treatment condition (M_{change}=0.68, SD=1.49), p=0.045, d=0.49. These results are shown in Figure 5.

Results confirmed that the best-self activation strengthened participants' immune systems (sIgA), as reported in Figure 6. We used random-effects regression models to control for the lack of independence of two salivary samples within the same participant. Here, sIgA level is the dependent variable, and time (at baseline vs. after manipulation) and condition (treatment vs. control) are independent variables. Results revealed a main effect of time, B=0.24, SE=0.07, p=0.001, and of treatment, B=−0.47, SE=0.14, p=0.001. There was a significant interaction between treatment and time, B=0.28, SE=0.10, p=0.008. The increase in sIgA over time was significant for the best-self condition (from $M_{pretest}$=4.81, SD=0.53 to $M_{posttest}$=5.35, SD=0.58), p<0.001, d=0.99, but not for the control group (from $M_{pretest}$=5.28, SD=0.63 to $M_{posttest}$=5.52, SD=0.63), p=0.10, d=0.39). These results support H2c.

Problem-solving performance. Finally, we tested whether best-self activation enhanced creative performance under pressure. Figure 7 shows that individuals in the treatment condition were more likely to solve the Duncker candle problem in three minutes (51%, 18/35) than those in the control condition (19%, 7/37), $\chi2$=(1, N=72)=9.39, p=0.004. A logit regression analysis found that this effect is robust after controlling for the level of education, which we entered as a control variable since education is conceptually related to problem solving. B=1.61, SE=0.55, p=0.004 (for education; B=0.29, SE =1.12, p=0.02). Similarly for the newspaper task,

individuals in the best-self condition ($M_{treatment}$=5.79, SD=0.31) were better at generating different uses for a newspaper than controls ($M_{control}$=4.67, SD=0.30), $t(71)$=2.61, p=0.01, d=0.62. A regression analysis confirmed that controlling for education does not change the significance and direction of the treatment effect, B=1.23, SE=0.42, p=0.004 (for education; B=0.45, SE=0.18, p=0.01). Table 2 summarizes separate analyses on fluency, flexibility, and novelty for the newspaper task. These results support H3b.

Discussion

Results from Study 2 indicate that best-self activation improved participants' positive emotions and physiology (i.e., vagal tone and immune system), buffered negative physiological arousal associated with stress-inducing tasks, and increased problem-solving performance under pressure. Taken together, Studies 1 and 2 demonstrate that activating people's best-self concepts spark adaptive outcomes that have the potential to lead to longer-term changes to the social system. Below, we test whether best-self activation affects individuals' narratives about their employment relationships, leading to long-term outcomes such as burnout and quitting.

STUDY 3

Study 3 focused on changes in newcomers' construals of their employment relationship during their first year. We conducted a field experiment in the U.S. operations of a global consulting firm where we randomly assigned newly-hired consultants to one of three conditions: (1) control group, (2) personal reflection best-self activation, and (3) social network best-self activation. Because our hypotheses focused specifically on contract drift, we used a longitudinal method with four surveys to assess the degree to which newcomers' contract narratives became more or less transactional as the employment relationship developed, resulting in greater burnout and propensity to quit.

The control group went through the organization's normal two-day socialization process, which introduces newcomers to the organizational culture and the responsibilities of their new roles. Employees in the personal reflection condition received the same job and culture orientation as those in the control condition, but also received an additional hour focusing on "Finding individuals' strengths and magnifying them." In this intervention, organizational facilitators led a group discussion with newcomers about the meaning of the word "strength" in this employment context and then showed a 7-minute video promoting how people get the best results by making the most of their strengths rather than by putting too much emphasis on their weaknesses. Next, participants were asked to think of at least three times when they were at their best and write the examples on paper. Finally, participants were told to partner with someone at their table and spend five minutes sharing their examples. The rest of the participants' induction was the same as the control condition.

Employees in the social network condition received the same job and culture orientation as those in the control condition, as well as the components of the personal reflection condition (described above). Additionally, employees in the social network condition were told they were being "given the opportunity to gain additional insight into your strengths by reaching out to those who know you best." These employees were asked to think of "close family, friends, and colleagues who know you well and can provide examples of when you've been at your best." These employees were then directed to an online survey where they identified names and emails of individuals from whom they would like to solicit input. This information was used to contact these feedback providers and solicit their best-self stories about the focal participants (i.e., "provide specific examples of times you have seen the person at their very best"). This intervention was developed based on the reflected best-self exercise (Quinn, Dutton, and

Spreitzer, 2003). The stories were compiled into a report, and delivered electronically to newcomers three weeks after the organizational session.

Sample and Data Collection

Our target sample was the 1,398 newcomers who were socialized at the organization across 25 different locations in one recruiting season. As is typical with longitudinal research, response rates declined with each survey, with 1,398 respondents completing the survey on Day 1, 557 respondents on Day 30, 459 respondents on Day 90, and 393 respondents at the end of one year.

Given that onboarding was done at the location level and the host organization believed it was impractical to conduct different treatments within the same location, it was necessary to assign treatment conditions by location. Moreover, after orientation, individuals joining the firm would work in one of two sides of the business. Finally, some onboarding groups included workers with prior experience while others included only campus hires. We accounted for these differences in our approach to random assignment. First, we sorted locations into bins based on the geographical region of the country (East, West, and Central). Then we created subsequent bins based on service line and then experience. Within each bin, locations were randomly assigned to the three treatment conditions. Following List, Sadoff, and Wagner (2011), randomization within blocks helps to balance the sample across the conditions of the experiment with respect to the dimensions of stratification and typically results in decreased variance in the estimated treatment effects.

Given the decline in response rate with each survey wave, it is possible that we experienced selection bias in our field experiment. Although experimental conditions were assigned randomly, and our final response rate after four surveys is consistent with longitudinal

studies of socialization (Bauer, Morrison, and Callister, 1998), one concern is that individuals who were more transactional to start with were more likely to respond to the survey over time. If this were the case, the trend toward transactional narratives would appear stronger than it was across the entire sample. To test this possibility we examined the transactional narrative scores in the initial survey to see if there was a difference for Day 360 respondents. The average scores ($M_{day\_360}=2.43$, $SD=0.79$; $M_{no\_day\_360}=2.42$, $SD=0.80$) were not statistically significantly different from each other. Thus, although we cannot explain the reason for declining response rates, it is unlikely that inherent differences in the population of responders, in terms of their initial transactional narratives, are driving our results.

Measures

Psychological contract narratives. Empirical research on psychological contracts often has used Rousseau's (1990) scale to measure transactional contracts (Robinson, Kraatz, and Rousseau, 1994, Robinson, 1996). This scale assesses inducements (e.g., pay, training, rapid advancement) and contributions (e.g., working extra hours, volunteering to do non-required tasks), and researchers then use canonical correlations or factor analysis of the items to extract factor scores to represent contract type. This approach has some limitations, since it makes assumptions about which specific inducements and contributions are relevant for the employees and the job, and also uses statistical output rather than respondents' construals to represent transactional relationships. We attempted to obviate some of these issues by creating a formative scale (Law, Wong, and Mobley, 1998) of transactional narratives based on the construct definition in the literature. Accordingly, we used five items to measure the extent to which newcomers perceived their employment to be transactional: "My commitment to [name of the organization] is defined by my contract," "I am taking this job with [name of the organization]

for the money," "I expect to grow within [name of the organization] (reverse coded)", My job

with [name of the organization] means more to me than just a means of paying the bills (reverse

coded)," and "I only plan to carry out what is necessary to get the job done." To allow us to

investigate contract drift, we assessed responses to this scale on Day 1, 30, 90, and 360.

Burnout. We measured employees' burnout from work on Day 360 with the Maslach

Burnout Inventory (Maslach and Jackson, 1981), which included items such as "I feel burned out

from my work" and "I feel emotionally drained from my work." Responses ranged from "1 =

strongly disagree" to "5 = strongly agree" (α=0.91).

Intentions to quit. Intent to quit was measured on Day 360 with O'Reilly, Chatman, and

Caldwell's (1991) four-item scale (e.g., "I have thought seriously about changing organizations

since beginning to work here"). Responses ranged from "1 = strongly disagree" to "5 = strongly

agree" (α=0.80).

Analyses and Results

Because our contract drift hypothesis proposes changes in narratives across time, we used

latent growth curves (LGC) to estimate individual change in participants across time using a

structural equation modeling program. The trajectories for each individual are defined by the

initial levels of the variable (the intercept) and its change (the slope) across the four

measurements. Growth curve modeling assumes that intra-individual differences, or a person's

intercept and rate of change, vary across individuals. That is, some newcomers' narratives will

become more transactional over time, while others will decrease over the same period. The

population mean of the intercept is equal to the overall average of individuals' initial starting

points. Likewise, the population mean of the rate of change describes the overall average rate of

change for all individuals. The variance associated with each of these parameters describes the inter-individual differences, or stability of the variable.

LGC analysis permits us to examine differences across both the initial starting values and the rate of change of participants instead of just mean differences across time. In addition to permitting structural equation modeling, which allows us to model multiple outcome measures in a single analysis, LGC analysis offers enhanced reliability over pre-post test designs because they include all available measurement points (Rogosa, Brandt, and Zimowski, 1982). The increased reliability results in increased sensitivity for behavioral change (Speer and Greenbaum, 1995).

To account for missing data across the four waves of data collection, we used full information maximum likelihood as an estimator, as it has been shown to produce less bias when confronting missing data (Schafer, 1997). We evaluated the treatment groups (personal reflection and social network) by constructing LGCs of psychological contract narratives with the MPLUS package. Table 3 shows the means, standard deviations, and correlations for the variables in Study 3. The first column of Table 4 shows the relationship between best-self activation and changes in transactional narratives across the first year of employment. Results indicated that the slope for transactional narratives was positive (0.22) and significant ($p<0.05$). This trend supports Hypothesis H5, indicating a trend toward increasingly transactional employment relationships across newcomers' first year of employment. Next, the social network best-self activation (but not self reflection) significantly affected the slope of transactional narratives (B=−0.18, $p<0.05$). Thus, participants in the social network condition became less transactional across time, supporting H6.

The second column of Table 4 shows the relationships between best-self activation, transactional narratives, and burnout across the first year of employment, including the total effects. The model displayed good fit, CFI=0.96, with RMSEA ranging from 0.005 to 0.032. The total effect of the social network best-self activation (but not self-reflection) reduced employee burnout (–0.26, $p<0.05$), such that the total effect was mediated by contract drift. Thus, H7a was supported.

The third column of Table 4 shows the relationship between best-self activation and employees' intentions to quit after one year of employment, mediated by contract drift. The model displayed good fit, CFI=1, with RMSEA ranging from 0 to 0.024. The total effect of the social network best-self activation (but not self-reflection) reduced employees' intentions to quit (B=−1.05, $p<0.01$), such that the total effect was mediated by contract drift. Thus, H7b was supported[3].

Finally, H8 proposed that best-self activation from a social network was more effective at predicting outcome measures (burnout and intentions to quit) relative to personal reflections. A visual inspection of the coefficients in Table 4 reveals that the social network coefficients were larger. We used a chi-square difference test to examine the difference between model fit between a model where the coefficients of both conditions were constrained to be equal and an unconstrained model where the coefficients between both conditions are allowed to vary. Results revealed that the models with free parameters fit significantly better for burnout ($p<0.05$) and intentions to quit ($p<0.05$) than the constrained models. These results support H8.

---

[3] For both burnout and for quitting intentions, we obtained the same support for the predicted mediated relationships by creating difference scores between the Day 360 transactional and Day 1 transactional, and then using linear regression.

General Discussion

Many leaders, teachers, and parents assume that the best way to improve performance is to focus on people's weaknesses. Highlighting people at their very best often is reserved for social endings, such as retirement parties and funerals. Perhaps this is because it is assumed that focusing people on their best will make them feel entitled and complacent, leading to lower motivation and arrogance. For many, it may even seem counterintuitive that people can improve when feedback focuses on their strengths rather than their limitations, which may be why performance-management systems rarely concentrate on employees at their best but instead highlight weaknesses.

In this paper, we examined whether potential is squandered when we keep silent about the positive impact people make when they are at their best. In two lab experiments and a field experiment, results showed that rather than making people complacent, best-self activation inspired them to substantial improvements in their emotions, physiology, cognitive ability, and relationships. People whose best-self concepts were activated felt better and were more resilient to stress, more resistant to disease and burnout, better at creative problem solving and performance under pressure, and formed stronger long-term relationships with their employer. In both the lab and the field, best-self activations were more effective in creating positive changes when they were socially reflected rather than personally developed.

Theoretical Contributions

Starting with the assumption that it is possible to unleash employees' potential by activating their best-self concepts, we developed theory about how appreciation jolts can lead to recursion, interaction, and subjective construal between the self-system and the social system. Conceptually, best-self activation can lead to sustained behavioral change because linking a

person's high-impact actions to his or her self-node facilitates sustained attention and repeated performance of those types of actions (Cross and Markus, 1990). Moreover, feedback loops between the self-system and the social system can propagate long-term adaptive outcomes. This is important because it permits predictions about the enduring results that go well beyond the immediate positive emotions and reactions that have been shown in the positive psychology literature (Isen, Daubman, and Nowicki, 1987, Fredrickson, 2001, Seligman et al., 2005). Our model and investigation thus link together an organizational intervention with its micro physiological and psychological effects on employees, which result in downstream organizational outcomes.

Next, we argued and demonstrated how best-self activation can reverse the contract drift toward transactional narratives proposed by Rousseau and Park (1993). To our knowledge this is the first conceptual linkage of positive psychology with the employment relationship literature. Linking these literatures is important, given that positive psychology and positive organizational scholarship emphasize the benefits of personal authenticity to both employees and organizations (Cameron et al., 2003). To the extent that employers encourage people to be more authentic at work using best-self activation, it is logical that employees will feel more valued in the work setting and will bring more of themselves to work. Moreover, by highlighting employees at their best, organizations can create a different type of exchange relationship– one that focuses on personal growth and authentic self-expression rather than close-ended task contributions in exchange for pay. As such, best-self activation affects employees' construal of "the deal" that they have in terms of what they are giving and getting from the employment relationship.

On a surface level, we offer logic and evidence for why organizations can use best-self activation to improve employee attitudes, performance, health, and the strength of the

employment relationship. On a deeper level, our theory aligns with a vision of employment that moves beyond strip-mining people for their immediate functionality in a pre-scripted role. "In contrast to normative methods of human resource management, such as traditional performance evaluations, which encourage looking across employees to see who is the 'best,'" (Roberts et al., 2005: 731), it may be possible for firms to build processes around people's strengths in addition to the specific tasks that are already in place. It will be interesting for future research to link positive feedback models, such as the one presented in this paper, with other processes that encourage self-expression, such as job crafting (Wrzesniewski and Dutton, 2001).

Many firms' human resource systems are the progeny of the industrial revolution, when leaders needed employees to perform pre-specified behaviors efficiently without engaging in innovation or information sharing. It is logical that the resulting employment systems operated on the emotions of fear, greed, and envy, which can be considered useful because they narrowed people's attention on the task at hand (Fredrickson, 2013). Today, due to the increasing need for organizational change, most leaders no longer want narrowly-focused, transactional employees, but instead seek employee collaboration, creative problem solving, resilience under pressure, and positive emotional connections with customers. Because these outcomes are triggered by positive emotions, organizations may be able to operate more effectively when their people systems are centered on positive rather than negative emotions. In these situations, best-self activation and feedback may be more functional.

Practical Implications

Our model and results imply that activating people's best-self concepts is beneficial both for humanistic and economic reasons. That is, best-self activations are not expensive but can help people live better and help organizations operate better. Moreover, the effects appear to be

sustained by feedback cycles, which is fortunate because best-self activation may not be a process that organizations should repeat for employees. That is, once an individual has received emotional stories of family, friends and colleagues, it probably would not make sense to return regularly to the same social network for additional memories.

On the other hand, future research may reveal alternative forms of best-self activations that can be built into regular organizational cycles. For example, it might be possible for work team members to write episodes about each other by focusing on the best contributions they have witnessed from each person over the previous year. More broadly, firms can find ways to not only activate employees' best-self concepts but encourage them to use their signature strengths at work (Wrzesniewski and Dutton, 2001, Seligman et al., 2005). These practices would stand in stark contrast to forced performance distributions that demand pre-set percentages of "worst employees" and up-or-out promotion systems that require employees to be fired even when the team is functioning well.

Next, the results suggest that best-self stories emerging from personal reflection are not as effective as stories that come from one's social network. This is important, practically, because compiling best-self stories from a social network entails substantially more processing – contacting a participant's social network, asking people to produce the memories, and bundling them into a report. Although Cable et al. (2013) showed that people's personal reflections about their best selves produced substantial results, important boundary conditions may be in play. For example, job level and employee expectations could be relevant, since Cable et al. (2013) studied call center and data entry employees for whom any focus on their best-self concepts created a positive jolt. It may take a stronger best-self activation from a social network to affect employees

whose strengths are already highlighted due to greater education, autonomy, and career expectations (Buckingham and Clifton, 2001).

Although future research is needed, our results also may have implications for the use of 360-degree feedback, which share some of the characteristics of the reflected best-self intervention. Specifically, 360-degree data can offer feedback on strengths and weaknesses from different perspectives of other people in an employee's social environment. On the one hand, it might seem that giving individuals both positive and negative self feedback would yield more improvement. On the other hand, because negative information looms larger than positive information (Baumeister et al., 2001), most people quickly ignore any strengths that emerge and focus on limitations and blind spots. Unfortunately, when employees focus on below-average ratings, it can alienate and demoralize them, leading to lower self-confidence and job performance (Thompson and Dalton, 1970, Meyer, 1975, Ilgen and Davis, 2000). In fact, a meta-analysis by Kluger and DeNisi (1996) showed that 38% of the 360-degree feedback interventions *decreased* performance, and that effectiveness decreased as the focus of the feedback was on the self and away from the task.

Our findings suggest that activating employees' best selves, with only a secondary focus on understanding and managing weaknesses, could lead to better individual and organizational outcomes (Roberts et al., 2005). Research also has revealed that compared to people who are not self-affirmed, self-affirmed participants are less likely to shun threatening health information that could benefit them (Klein and Harris, 2009, Taylor and Walton, 2011), and show greater attention to their errors on a cognitive task (Legault, Al-Khindi, and Inzlicht, 2012). This pattern suggests greater learning and behavioral change among individuals whose best-self concepts have been activated because, by fostering an approach orientation rather than avoidance

orientation, the intervention motivates improvement. Future research is needed to better understand the timing and the ratio of positive-to-negative self feedback that maximizes individuals' improvement, and how cultural differences could affect this ratio.

Strengths, Limitations and Future Research

This investigation has some strengths and limitations that should be considered. For example, we tested our hypotheses across three experimental studies. Our first lab experiment was designed to maximize internal validity by randomly assigning employees to conditions, and directly comparing best-self activation via social network versus self-reflection. Independent judges evaluated their performance, eliminating concerns about self-report data. Then, we conducted a second lab experiment where we captured the emotional, physiological, and cognitive adaptive outcomes of best-self activation (H1-H3) changes that can lead to greater performance under pressure. Finally, we conducted a large-scale longitudinal field experiment to balance internal validity with external validity (Shadish, Cook, and Campbell, 2002) and to examine how best-self activation affected employees' narratives about their employment relationships. To permit an appropriate test of contract drift (Rousseau and Parks, 1993), we collected four waves of data across the first year of employment, and used using growth modeling analyses. These complementary studies permitted an initial test of our unfolding model.

In terms of limitations, we theorized that best-self activation makes the best-self concept chronic in long term memory (Kihlstrom and Cantor, 1984, Markus and Wurf, 1987, Wheeler, DeMarree, and Petty, 2007). However, we did not measure the accessibility of the best-self concept, nor did we examine whether people linked new concepts to the self node. Relatedly, although we predicted and found that social network led to more effective best-self activation

than personal reflections, we did not examine what attributes of the stories were more effective.

It would be interesting for future research to examine the factors that lead to the greatest changes

in self conceptions, such as story length (number of words), specificity (number of adjectives),

and source (type of social relationship).

We also did not measure or examine possible negative emotions such as regret that could

have emerged from the best-self activation. It is possible, for example, that after being shown

what impact they are capable of making, individuals experience regret for what they have missed

or not pursued. Also, although the general effects of the best-self activation clearly were positive,

we do not know if some individuals felt their stories were not as positive or numerous as they

expected, which could have caused them to respond negatively.

Next, there may be important organizational boundary conditions that we did not

investigate in this paper. To the extent that an organization tries best-self activation but does not

have a learning-mindset culture that encourages employees to realize their potential, they

eventually may become alienated and critical of the intervention. It likewise is possible that

autonomy is a precondition of a successful best-self activation, since employees may need an

opportunity to use their strengths after they are highlighted. As noted by Roberts et al. (2005:

731), when "employees discover that they are unable to actualize their RBS within their current

organization, they may seek employment with other organizations that will provide opportunities

for them to enact their RBS [reflected best-self] more frequently."

Given that we only studied one organization in the field, future research is needed to

extend the generalizability of the results. Because the particular organization we investigated

already focuses on "playing to strengths" during newcomer socialization, we likely provided a

conservative test of our hypotheses. Future research is needed to substantiate these results in different industries, cultures, and work contexts.

Conclusion

Most societies and organizations have not created vehicles for reminding people who they are when they are at their best, even though theory suggests that this information can inspire them to achieve more of their potential. By activating people's best-self concepts and highlighting examples of them making extraordinary contributions, we found positive changes in their physiology, creative problem solving, performance under pressure, and social relationships, particularly when the stories were reflected back to them by others. These results suggest that there is considerable lost potential in keeping silent about how others affect us when they are at their best.

REFERENCES

Amabile, T. M., S. G. Barsade, J. S. Mueller, and B. M. Staw2005 "Affect and Creativity at Work." Administrative Science Quarterly, 50: 367–403.

Argyris, C.1960 Understand Organizational Behavior. Homewood, IL: Dorsey: Tavistock Publications.

Ashby, F. G. and A. M. Isen1999 "A neuropsychological theory of positive affect and its influence on cognition." Psychological Review, 106: 529–550.

Bauer, T., E. W. Morrison, and R. R. Callister1998 "Organizational socialization: A review and directions for future research." In G. R. Ferris (ed.), Research in Personnel and Human Resource Management Vol. 16: 149–214. Greenwich, CT: JAI Press.

Baumeister, R. F., E. Bratslavsky, C. Finkenauer, and K. D. Vohs2001 "Bad is stronger than good." Review of General Psychology, 5: 323–370.

Britt, T. W. and P. D. Bliese2003 "Testing the stress- buffering effects of self engagement among soldiers on a military operation." Journal of Personality, 71: 245–266.

Buckingham, M. and D. O. Clifton2001 Now, Discover Your Strengths. Simon and Schuster.

Bush, L. K., U. Hess, and G. Wolford1993 "Transformations for within-subject designs: A Monte Carlo investigation." Psychological Bulletin, 113: 566–579. American Psychological Association.

Cable, D. M., F. Gino, and B. R. Staats2013 "Breaking them in or eliciting their best? Reframing socialization around newcomers' authentic self-expression." Administrative Science Quarterly, 58: 1–36. SAGE Publications.

Cameron, K. S., J. E. Dutton, R. E. Quinn, and A. Wrzesniewski2003 "Developing a discipline of positive organizational scholarship." In K. S. Cameron, J. E. Dutton, and R. E. Quinn (eds.), Positive Organizational Scholarship: 361–370. San Francisco: Berrett-Koehler Publishers.

Cohen, G. L. and D. K. Sherman2014 "The psychology of change: Self-affirmation and social psychological intervention." Annual Review of Psychology, 65: 333–371.

Cohen, G. L., J. Garcia, V. Purdie-Vaughns, N. Apfel, and P. Brzustoski2009 "Recursive processes in self-affirmation: intervening to close the minority achievement gap." Science, 324: 400–403. American Association for the Advancement of Science.

Cohen, S.2001 "Social relationships and susceptibility to the common cold." In C. D. Ryff and B. Singer (eds.), Emotion, Social Relationships, and Health: 221–242. Oxford: Oxford University Press.

Cohen, S., W. J. Doyle, D. P. Skoner, B. S. Rabin, and J. M. Gwaltney1997 "Social ties and susceptibility to the common cold." Jama, 277: 1940–1944. American Medical Association.

Cooley, C. H.1902 Human Nature and the Social Order. New York: Scribners.

Côté, S.1999 "Affect and performance in organizational settings." Current Directions in Psychological Science, 8: 65–68. SAGE Publications.

Creswell, J. D., J. M. Dutcher, W. Klein, and P. R. Harris2013 "Self-affirmation improves problem-

solving under stress." PLoS ONE, 8: e62593.

Creswell, J. D., W. T. Welch, S. E. Taylor, D. K. Sherman, T. L. Gruenewald, and T. Mann2005 "Affirmation of personal values buffers neuroendocrine and psychological stress responses." Psychological Science, 16: 846–851. SAGE Publications.

Cross, S. E. and H. R. Markus1990 "The willful self." Personality and Social Psychology Bulletin, 16: 726–742. SAGE Publications.

Cross, S. E. and H. R. Markus1994 "Self-schemas, possible selves, and competent performance." Journal of Educational Psychology, 86: 423–438.

Cuddy, A. J. C., C. A. Wilmuth, A. J. Yap, and D. R. Carney2015 "Preparatory power posing affects nonverbal presence and job interview performance." Journal of Applied Psychology, 100: 1286–1295.

De Dreu, C. K. W., M. Baas, and B. A. Nijstad2008 "Hedonic tone and activation level in the mood-creativity link: Toward a dual pathway to creativity model." Journal of Personality and Social Psychology, 94: 739–756.

Duncker, K.1945 "On problem-solving." Psychological Monographs, 58: i–302. American Psychological Association.

Dutton, J. E. and E. D. Heaphy2003 "The power of high-quality connections." In Positive Organizational Scholarship Foundations of a New Discipline 3rd ed.: 263–278. Positive organizational scholarship ….

Ely, R. J.1994 "The effects of organizational demographics and social identity on relationships among professional women." Administrative Science Quarterly, 39: 203–238.

Fredrickson, B. L.2000 "Cultivating positive emotions to optimize health and well-being." Prevention & Treatment, 3.

Fredrickson, B. L.2001 "The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions." American Psychologist, 56: 218–226. American Psychological Association.

Fredrickson, B. L.2013 Positive Emotions Broaden and Build. Advances in Experimental Social Psychology, Advances in Experimental Social Psychology Vol. 47: 1–53. Elsevier.

Fredrickson, B. L., M. M. Tugade, C. E. Waugh, and G. R. Larkin2003 "What good are positive emotions in crisis? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001." Journal of Personality and Social Psychology, 84: 365–376. American Psychological Association.

Glucksberg, S. and R. W. Weisberg1966 "Verbal behavior and problem solving: Some effects of labeling in a functional fixedness problem." Journal of Experimental Psychology, 71: 659. American Psychological Association.

Grandey, A. A.2003 "When 'The Show Must Go On': Surface acting and deep acting as determinants of emotional exhaustion and peer-rated service delivery." Academy of Management Journal, 46: 86–96. Academy of Management.

Granovetter, M.1985 "Economic action and social structure: the problem of embeddedness." American

Journal of Sociology, 91: 481–510.

Grant, A. M. and F. Gino2010 "A little thanks goes a long way: Explaining why gratitude expressions motivate prosocial behavior." Journal of Personality and Social Psychology, 98: 946–955.

Grant, A. M., J. M. Berg, and D. M. Cable2014 "Job titles as identity badges: How self-reflective titles can reduce emotional exhaustion." Academy of Management Journal, 57: 1201–1225.

Guilford, J. P.1950 "Creativity." American Psychologist, 5: 444–454.

Harzer, C. and W. Ruch2012a "The application of signature character strengths and positive experiences at work." Journal of Happiness Studies, 14: 965–983.

Harzer, C. and W. Ruch2012b "When the job is a calling: The role of applying one's signature strengths at work." The Journal of Positive Psychology, 7: 362–371. Routledge.

Heaphy, E. D. and J. E. Dutton2008 "Positive social interactions and the human body at work: Linking organizations and physiology." Academy of Management Review, 33: 137–162.

Hochschild, A. R.1979 "Emotion work, feeling rules, and social structure." American Journal of Sociology, 85: 551–575.

Ibarra, H.1999 "Provisional Selves: Experimenting with Image and Identity in Professional Adaptation." Administrative Science Quarterly, 44: 764–791.

Ibarra, H. and R. Barbulescu2010 "Identity as narrative: Prevalence, effectiveness, and consequences of narrative identity work in macro work role transitions." Academy of Management Review, 35: 135–154.

Ilgen, D. and C. Davis2000 "Bearing bad news: Reactions to negative performance feedback." Applied Psychology, 49: 550–565.

Isen, A. M., K. A. Daubman, and G. P. Nowicki1987 "Positive affect facilitates creative problem solving." Journal of Personality and Social Psychology, 52: 1122–1131. American Psychological Association.

Kahn, W. A.1990 "Psychological conditions of personal engagement and disengagement at work." Academy of Management Journal, 33: 692–724.

Kihlstrom, J. F. and N. Cantor1984 Mental Representations of the Self. Advances in Experimental Social Psychology, Advances in Experimental Social Psychology Vol. 17: 1–47. Elsevier.

Klein, W. M. P. and P. R. Harris2009 "Self-affirmation enhances attentional bias toward threatening components of a persuasive message." Psychological Science, 20: 1463–1467. SAGE Publications.

Kluger, A. N. and A. DeNisi1996 "The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory." Psychological Bulletin, 119: 254–284. American Psychological Association.

Kok, B. E., K. A. Coffey, M. A. Cohn, L. I. Catalino, T. Vacharkulksemsuk, S. B. Algoe, M. Brantley, et al.2013 "How positive emotions build physical health: Perceived positive social connections account for the upward spiral between positive emotions and vagal tone." Psychological Science, 24: 1123–1132.

Law, K. S., C.-S. Wong, and W. H. Mobley1998 "Toward a taxonomy of multidimensional constructs." Academy of Management Review, 23: 741–755.

Lazarus, R. S. and S. Folkman1984 Stress, Appraisal, and Coping. Springer Publishing Company.

Legault, L., T. Al-Khindi, and M. Inzlicht2012 "Preserving integrity in the face of performance threat: Self-affirmation enhances neurophysiological responsiveness to errors." Psychological Science, 23: 1455–1460. SAGE Publications.

List, J. A., S. Sadoff, and M. Wagner2011 "So you want to run an experiment, now what? Some simple rules of thumb for optimal experimental design." Experimental Economics, 14: 439–457. Springer US.

Liston, C., B. S. McEwen, and B. J. Casey2009 "Psychosocial stress reversibly disrupts prefrontal processing and attentional control." Proceedings of the National Academy of Sciences, 106: 912–917.

Macneil, I. R.1985 "Relational contract: What we do and do not know." Wis L Rev.

Maddux, W. W. and A. D. Galinsky2009 "Cultural borders and mental barriers: The relationship between living abroad and creativity." Journal of Personality and Social Psychology, 96: 1047–1061. American Psychological Association.

Mandler, G.1984 "Consciousness, imagery, and emotion—with special reference to autonomic imagery." Journal of Mental Imagery. Brandon House.

Mantis, N. J., N. Rol, and B. Corthésy2011 "Secretory IgA's complex roles in immunity and mucosal homeostasis in the gut." Mucosal Immunology, 4: 603–611. Nature Publishing Group.

Markus, H. and E. Wurf1987 "The Dynamic self-concept: A social psychological perspective." Annual Review of Psychology, 38: 299–337.

Markus, H. and P. Nurius1986 "Possible selves." American Psychologist, 41: 954–969.

Maslach, C. and S. E. Jackson1981 "The measurement of experienced burnout." Journal of Organizational Behavior, 2: 99–113. John Wiley & Sons, Ltd.

Maslach, C., W. B. Schaufeli, and M. P. Leiter2001 "Job burnout." Annual Review of Psychology, 52: 397–422.

McAdams, D. P.1988 "Biography, narrative, and lives: An introduction." Journal of Personality, 56: 1–18.

Mendes, W. B.2009 "Assessing autonomic nervous system activity." Methods in Social Neuroscience, 118–147. Guilford Press, New York.

Merton, R. K.1948 "The self-fulfilling prophecy." The Antioch Review, 8: 193–210.

Meyer, M. W.1975 "Organizational domains." American Sociological Review, 40: 599–615.

Nummenmaa, L. and P. Niemi2004 "Inducing affective states with success-failure manipulations: a meta-analysis." Emotion, 4: 207–214.

O'Reilly, C. A., J. Chatman, and D. F. Caldwell1991 "People and organizational culture: A comparison

approach to assessing person-organization fit." Academy of Management Journal, 34: 487–516.

Pines, A. M.1993 "Burnout: An existential perspective." In W. B. Schaufeli, C. Maslach, and T. Marek (eds.), : 33–51. Taylor & Francis.

Polzer, J. T., L. P. Milton, and W. B. Swann2002 "Capitalizing on diversity: Interpersonal congruence in small work groups." Administrative Science Quarterly, 47: 296–324.

Poole, P. P., D. A. Gioia, and B. Gray1989 "Influence modes, schema change, and organizational transformation." Journal of Applied Behavioral Science, 25: 271–289.

Porges, S. W.1995 "Orienting in a defensive world: Mammalian modifications of our evolutionary heritage. A polyvagal theory." Psychophysiology, 32: 301–318. Wiley Online Library.

Pratt, M. G.2000 "The Good, the bad, and the ambivalent: Managing identification among Amway distributors." Administrative Science Quarterly, 45: 456–493.

Pratto, F. and O. P. John1991 "Automatic vigilance: The attention-grabbing power of negative social information." Journal of Personality and Social Psychology, 61: 380–391.

Pressman, S. D., S. Cohen, G. E. Miller, A. Barkin, B. S. Rabin, and J. J. Treanor2005 "Loneliness, social network size, and immune response to influenza vaccination in college freshmen." Health Psychology, 24: 297–306. American Psychological Association.

Quinn, R. E., J. E. Dutton, and G. M. Spreitzer2003 "Reflected Best Self Exercise: Assignment and instructions to participants." Center for Positive Organizational Scholarship, Ross School of Business, University of Michigan. Product B, 1.

Roberts, L. M., J. E. Dutton, G. M. Spreitzer, E. D. Heaphy, and R. E. Quinn2005 "Composing the reflected best-self portrait: Building pathways for becoming extraordinary in work organizations." Academy of Management Review, 30: 712–736. Academy of Management.

Robinson, S. L.1996 "Trust and Breach of the Psychological Contract." Administrative Science Quarterly, 41: 574–599. Johnson Graduate School of Management, Cornell University.

Robinson, S. L. and D. M. Rousseau1994 "Violating the psychological contract: Not the exception but the norm." Journal of Organizational Behavior, 15: 245–259.

Robinson, S. L., M. S. Kraatz, and D. M. Rousseau1994 "Changing obligations and the psychological contract: A longitudinal study." Academy of Management Journal, 37: 137–152.

Rogosa, D., D. Brandt, and M. Zimowski1982 "A growth curve approach to the measurement of change." Psychological Bulletin, 92: 726–748.

Ross, L. and R. E. Nisbett2011 The Person and the Situation. Pinter & Martin Publishers.

Rousseau, D. M.1990 "New hire perceptions of their own and their employer's obligations: A study of psychological contracts." Journal of Organizational Behavior, 11: 389–400.

Rousseau, D. M. and J. M. Parks1993 "The contracts of individuals and organisations' in research in organisational behaviour." In L. L. Cummings (ed.), Research in Organizational Behavior Vol. 15: 1–43. Greenwich, CT: LL Cummings and BM Staw,(eds).

Schafer, J.1997 Analysis of Incomplete Multivariate Data. C&H/CRC Monographs on Statistics & Applied Probability. London.

Schmeichel, B. J. and K. Vohs2009 "Self-affirmation and self-control: Affirming core values counteracts ego depletion." Journal of Personality and Social Psychology, 96: 770–782. American Psychological Association.

Seligman, M. E. P., T. A. Steen, N. Park, and C. Peterson2005 "Positive psychology progress: Empirical validation of interventions." American Psychologist, 60: 410–421. American Psychological Association.

Shadish, W. R., T. D. Cook, and D. T. Campbell2002 Experimental and Quasi-Experimental Designs for Generalized Causal Inference. Boston: Houghton-Mifflin.

Shannon, K. E., T. P. Beauchaine, S. L. Brenner, E. Neuhaus, and L. Gatzke-Kopp2007 "Familial and temperamental predictors of resilience in children at risk for conduct disorder and depression." Development and Psychopathology, 19: 701–727. Cambridge University Press.

Sheldon, K. M. and S. Lyubomirsky2006 "How to increase and sustain positive emotion: The effects of expressing gratitude and visualizing best possible selves." The Journal of Positive Psychology, 1: 73–82.

Sherman, D. K.2013 "Self- affirmation: Understanding the effects." Social and Personality Psychology Compass, 7: 834–845.

Sherman, D. K., G. L. Cohen, L. D. Nelson, A. D. Nussbaum, D. P. Bunyan, and J. Garcia2009 "Affirmed yet unaware: Exploring the role of awareness in the process of self-affirmation." Journal of Personality and Social Psychology, 97: 745–764. American Psychological Association.

Simon, H. A.1951 "A formal theory of the employment relationship." Econometrica, 19: 293–305.

Speer, D. C. and P. E. Greenbaum1995 "Five methods for computing significant individual client change and improvement rates: support for an individual growth curve approach." Journal of Consulting and Clinical Psychology, 63: 1044–1048.

Spreitzer, G.2007 "Giving peace a chance: organizational leadership, empowerment, and peace." Journal of Organizational Behavior, 28: 1077–1095. John Wiley & Sons, Ltd.

Spreitzer, G., J. P. Stephens, and D. Sweetman2009 "The Reflected Best Self field experiment with adolescent leaders: exploring the psychological resources associated with feedback source and valence." The Journal of Positive Psychology, 4: 331–348. Routledge.

Stone, A. A., D. S. Cox, H. Valdimarsdottir, L. Jandorf, and et al1987 "Evidence that secretory IgA antibody is associated with daily mood." Journal of Personality and Social Psychology, 52: 988–993.

Swann, W. B.1987 "Identity negotiation: Where two roads meet." Journal of Personality and Social Psychology, 53: 1038–1051.

Swann, W. B., A. Stein-Seroussi, and R. B. Giesler1992 "Why people self-verify." Journal of Personality and Social Psychology, 62: 392–401.

Swann, W. B., Jr, L. P. Milton, and J. T. Polzer2000 "Should we create a niche or fall in line? Identity negotiation and small group effectiveness." Journal of Personality and Social Psychology, 79: 238–250.

American Psychological Association.

Tadmor, C. T., P. Satterstrom, and S. Jang2012 "Beyond individual creativity: The superadditive benefits of multicultural experience for collective creativity in culturally diverse teams." Journal of Cross-Cultural Psychology, 43: 384–392.

Task Force of the European Society of Cardiology and the North American Society of Pacing and Electrophysiology1996 "Heart Rate Variability : Standards of Measurement, Physiological Interpretation, and Clinical Use." Circulation, 93: 1043–1065.

Taylor, V. J. and G. M. Walton2011 "Stereotype threat undermines academic learning." Personality and Social Psychology Bulletin, 37: 1055–1067. SAGE Publications.

Thompson, J. A. and J. S. Bunderson2003 "Violations of principle: Ideological currency in the psychological contract." Academy of Management Review, 28: 571–586.

Thompson, P. and G. W. Dalton1970 "Performance Appraisal." Harvard Business Review, 48: 149.

Tracy, J. L. and R. W. Robins2007 "The psychological structure of pride: A tale of two facets." Journal of Personality and Social Psychology, 92: 506–525. American Psychological Association.

Tsui, A. S., J. L. Pearce, L. W. Porter, and A. M. Tripoli1997 "Alternative approaches to the employee-organization relationship: Does investment in employees pay off?." Academy of Management Journal, 40: 1089–1121. Academy of Management.

Tugade, M. M. and B. L. Fredrickson2004 "Resilient individuals use positive emotions to bounce back from negative emotional experiences." Journal of Personality and Social Psychology, 86: 320–333. American Psychological Association.

Watson, D., L. A. Clark, and A. Tellegen1988 "Development and validation of brief measures of positive and negative affect: The PANAS scales." Journal of Personality and Social Psychology, 54: 1063–1070.

Wheeler, S. C., K. G. DeMarree, and R. E. Petty2007 "Understanding the role of the self in prime-to-behavior effects: The active-self account." Personality and Social Psychology Review, 11: 234–261.

Williams, K. D. and B. Jarvis2006 "Cyberball: A program for use in research on interpersonal ostracism and acceptance." Behavior Research Methods, 38: 174–180. Springer.

Williams, L. A. and D. DeSteno2008 "Pride and perseverance: The motivational role of pride." Journal of Personality and Social Psychology, 94: 1007–1017.

Wilson, T.2011 Redirect. New York: Penguin.

Wilson, T. D. and P. W. Linville1982 "Improving the academic performance of college freshmen: Attribution therapy revisited." Journal of Personality and Social Psychology, 42: 367–376.

Wrzesniewski, A. and J. E. Dutton2001 "Crafting a job: Revisioning employees as active crafters of their work." Academy of Management Review, 26: 179–201.
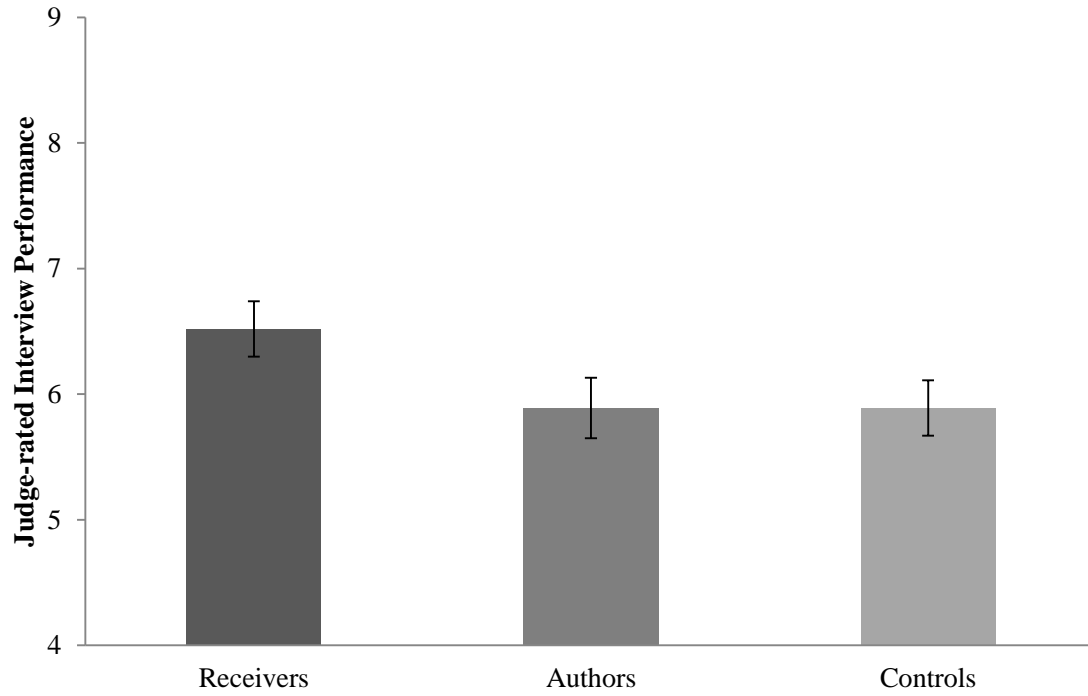
FIGURE 1
Feedback cycle model of best-self activation
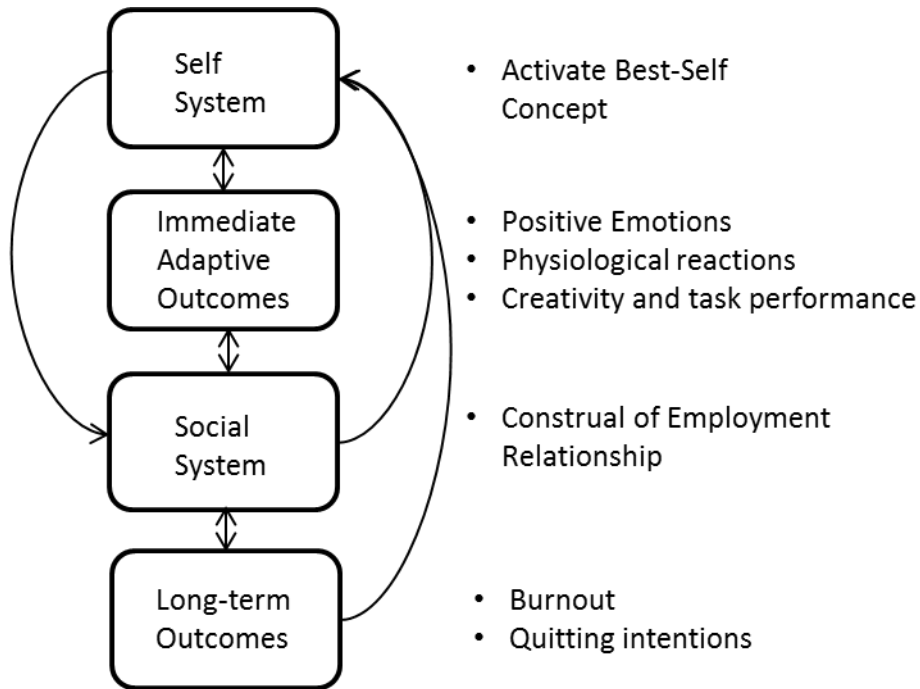
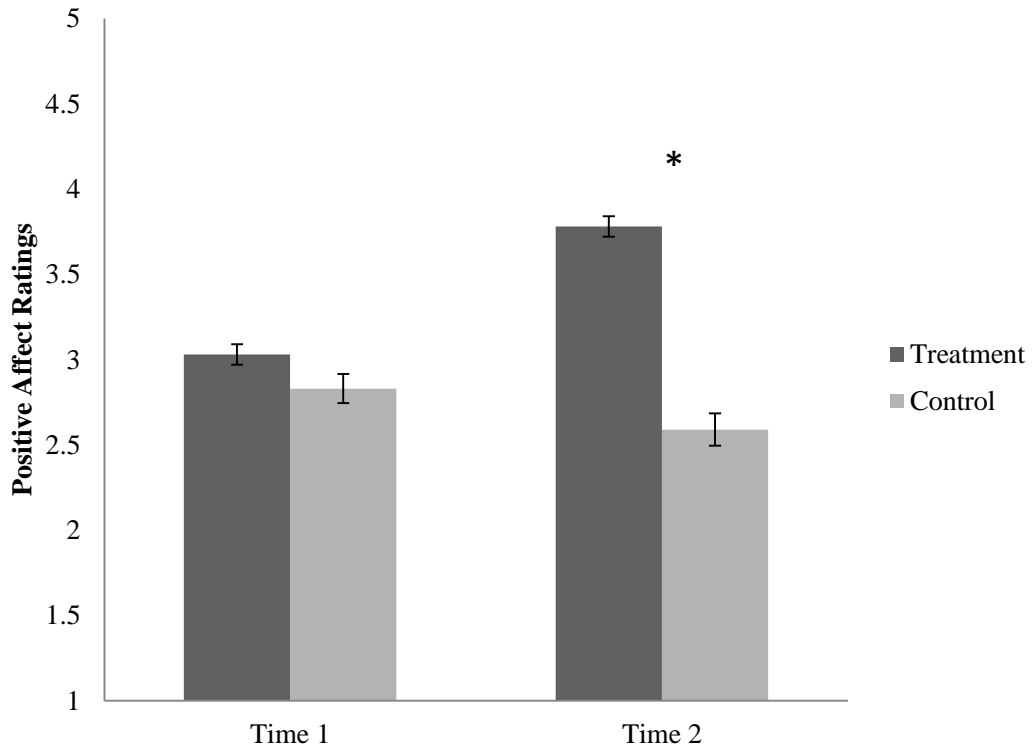Adapted from Cohen and Sherman (2014)

FIGURE 2.

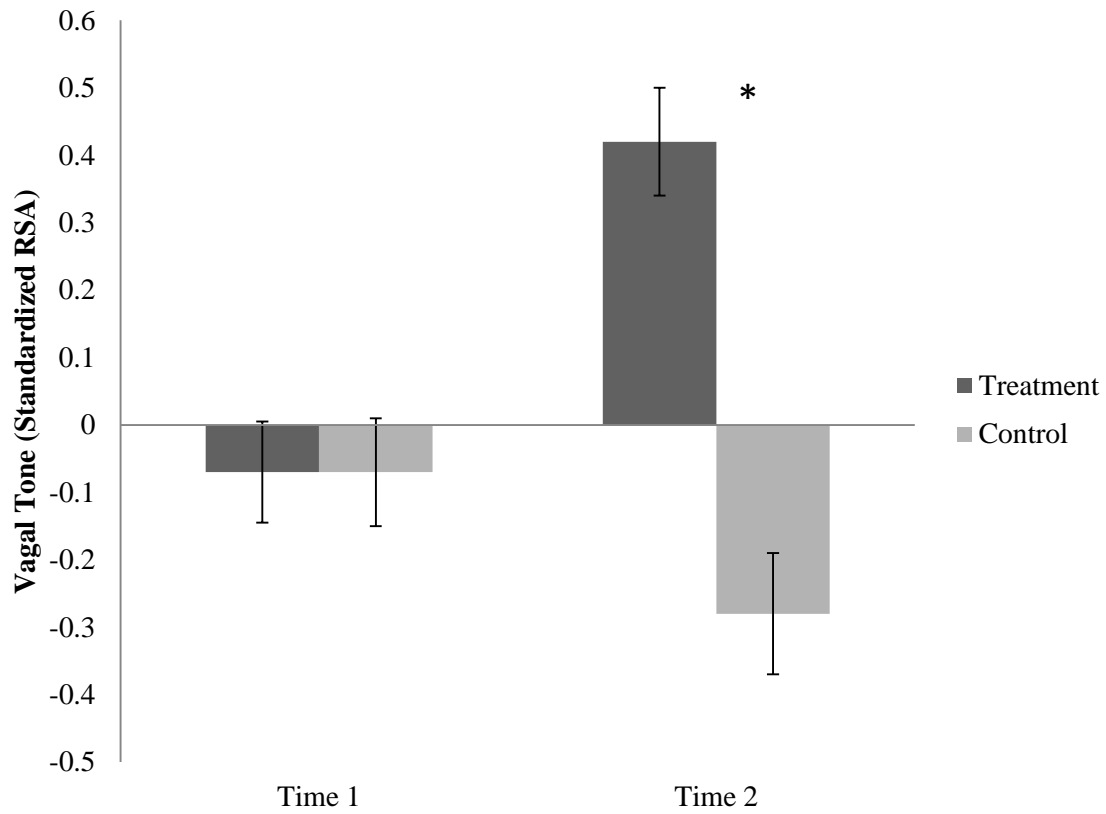Mean judge-rated interview performance in Study 1. Error bars represent standard errors.

FIGURE 3.

Mean positive emotions as a function of time and treatment in Study 2. Error bars represent standard errors. *=$P \leq .05$.
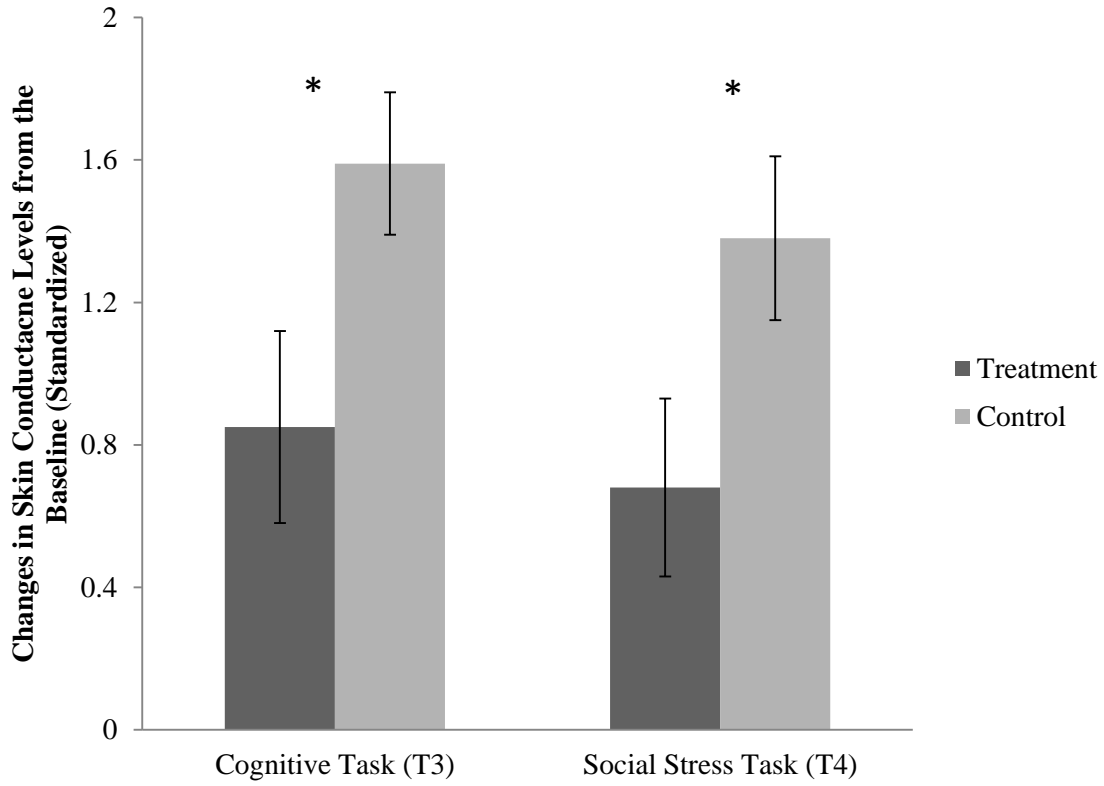
FIGURE 4.

Mean RSA as a function of time and treatment in Study 2. Error bars represent standard errors.
*=$P \leq .05$.

FIGURE 5.

Changes in skin conductance levels as a function of time and treatment in Study 2. Error bars represent standard errors. $*=P \le .05$.

FIGURE 6.

Mean sIgA as a function of time and treatment in Study 2. Error bars represent standard errors.
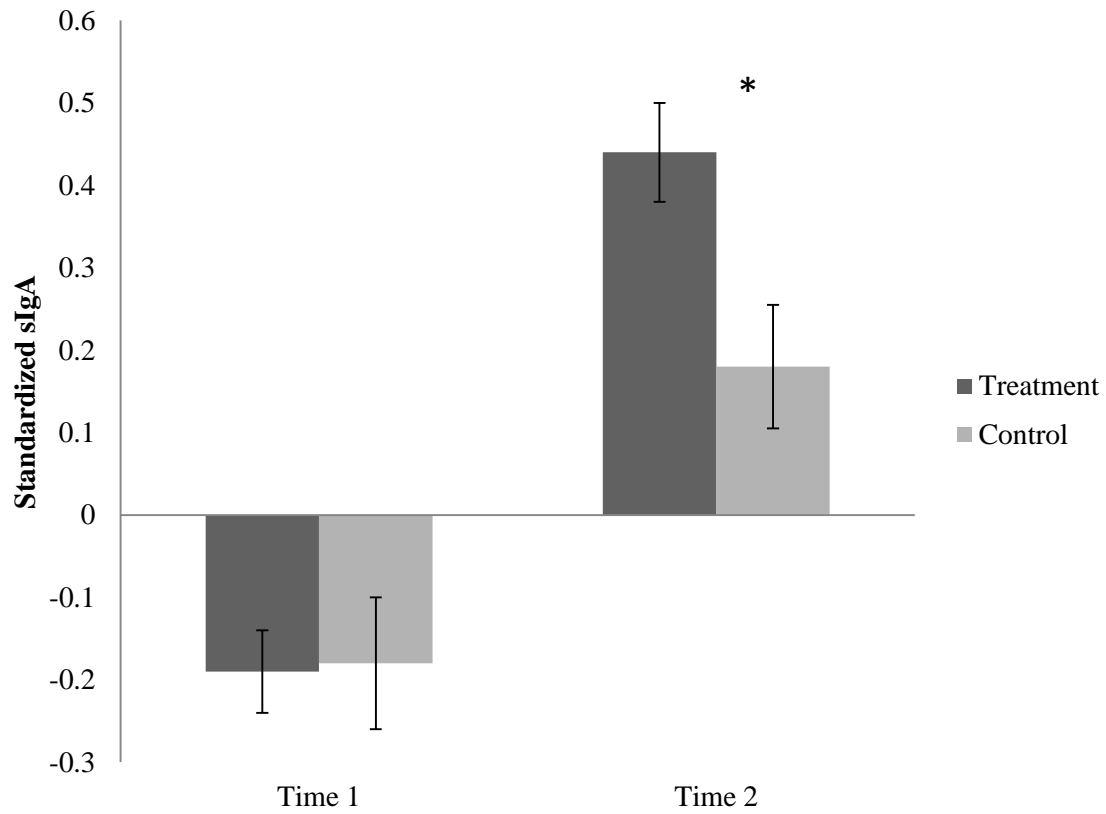*=$P \leq .05$.

FIGURE 7.

Mean problem-solving performance as a function of treatment in Study 2. Error bars represent standard errors. *=*P* ≤ .05.
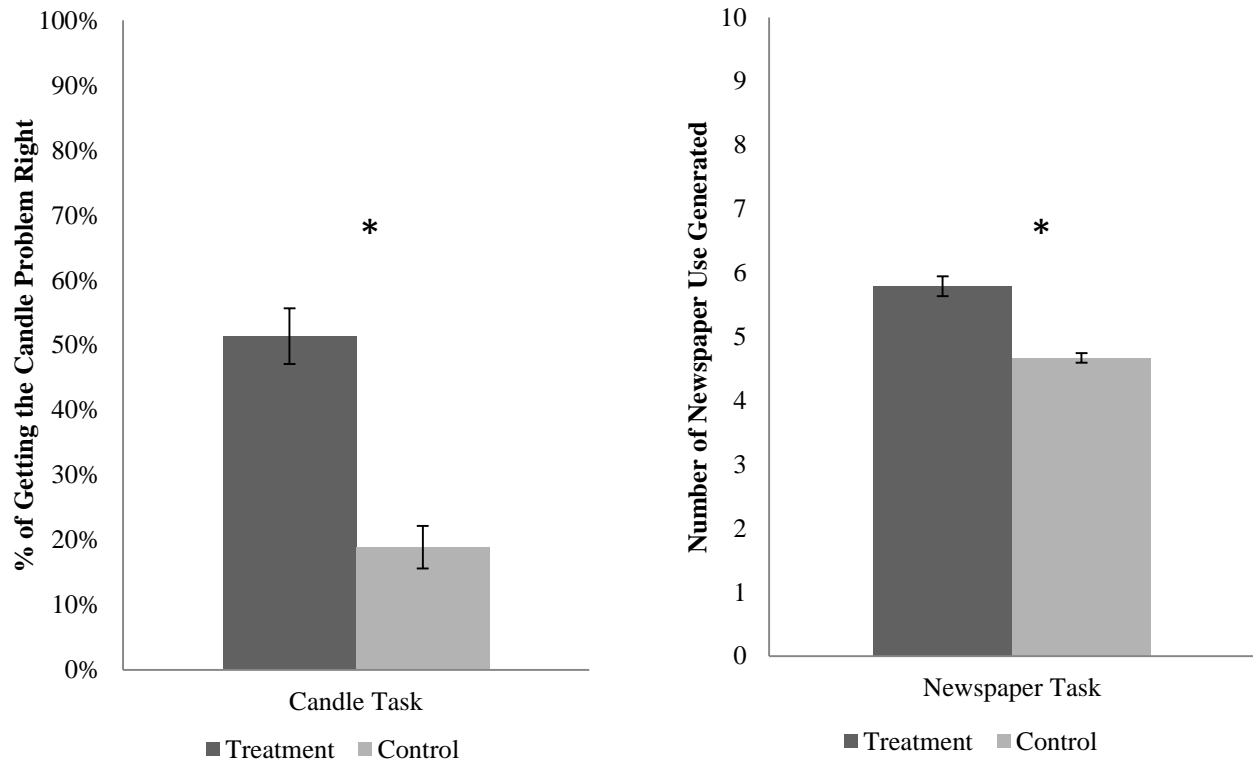
TABLE 1
Summary Statistics, Study 1

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. Treatment (vs. Control)	0.48	0.50	1										
2. Positive Emotions at T1	2.69	0.79	0.10	1									
3. Positive Emotions at T2	3.12	1.02	0.60***	0.69***	1								
4. RSA at T1	6.57	2.01	0.23	0.05	0.01	1							
5. RSA at T2	6.78	2.18	0.35**	0.03	0.07	0.58***	1						
6. SIgA at T1	194.29	157.68	–0.36**	–0.00	–0.18	–0.21	–0.18	1					
7. SIgA at T2	271.54	196.97	–0.26	0.00	–0.17	–0.10	–0.07	0.65***	1				
8. Skin Conductance at T1	7.89	4.84	–0.02	0.12	–0.01	0.09	0.07	0.11	–0.10	1			
9. Skin Conductance at T3	9.82	4.45	–0.14	0.15	–0.08	0.07	0.05	0.14	–0.09	0.80***	1		
10. Skin Conductance at T4	9.43	4.17	–0.11	0.14	–0.06	0.03	0.03	0.21	–0.03	0.81***	0.93***	1	
11. Performance (Candle)	0.35	0.48	0.34**	–0.14	0.23	0.04	0.08	–0.14	–0.06	–0.08	–0.11	–0.07	1
12. Performance (Newspaper)	5.27	1.91	0.29*	–0.13	–0.04	0.07	0.10	–0.17	–0.10	–0.08	–0.00	–0.05	0.23*

Note. ***$p<0.001$, **$p<0.01$, *$p<0.05$, ^$p<0.10$. All physiological measures are raw scores before transformation and standardization. T1 refers to baseline, T2 refers to the time period when participants were treated, T3 refers to the cognitive task period, and T4 refers to social stress task period.

TABLE 2
Multiple Regressions Results for Fluency, Flexibility, and Novelty, Study 1

Predictor Variables	Creative Performance					
	Fluency		Flexibility		Novelty	
	β	SE	β	SE	β	SE
Treatment (vs. Control)	0.50*	0.22	0.51*	0.22	0.64**	0.22
Level of Education	0.24*	0.09	0.23*	0.09	0.21*	0.09
N	73		73		73	
Overall R-squared	0.13		0.13		0.15	
Overall F	5.08**		5.22**		6.15**	

Note. ***p<0.001, **p<0.01, *p<0.05, ^*p*<0.10.

TABLE 3
Summary Statistics, Study 3

Variable	Mean	SD	1	2	3	4	5	6
1. Transactional Day 1	16.58	2.43						
2. Transactional Day 30	16.33	2.31	.48 **					
3. Transactional Day 90	16.01	2.11	.42 **	.50 **				
4. Transactional Day 360	15.61	2.25	.34 **	.42 **	.29 **			
5. Burnout	3.21	0.93	.06	.16 *	.11	.00		
6. Intent to Quit	7.43	2.62	.07	.14	.05	-.05	.48 **	
7. Social network activation	0.31	0.46	.04	.01	-.05	-.02	-.11	-.15 **
8. Self reflection activation	0.42	0.49	-.05	-.07	-.02	-.03	.04	.04

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

TABLE 4

Latent Growth Curve Analyses of Best-self Activation on Newcomers' Burnout and Quit Intentions

Variable	Transactional Contracts	Burnout	Intent To Quit
Transactional Slope	0.23 **		
Transactional Intercept	16.83 **		
Social network activation ->Transactional Slope	-0.17 **		
Social network activation ->Transactional Intercept	0.14		
Self reflection activation ->Transactional Slope	0.00		
Self reflection activation ->Transactional Intercept	-0.17		
Social network activation -> Outcome Variable		-0.14	-0.15
Self reflection activation -> Outcome variable		-0.06	-0.10
Female -> Transactional Slope	0.01		
Female -> Transactional Intercept	-0.12		
Female -> Outcome Variable		0.30 **	0.16
White -> Transactional Slope	-0.03		
White -> Transactional Intercept	-0.27 *		
White -> Outcome Variable		0.18	0.17
Transactional Intercept -> Outcome Variable		0.11 **	0.34 **
Transactional Slope -> Outcome Variable		0.30	1.21
Total Effects			
Social network activation -> Outcome		-0.26 **	-1.05 **
Self reflection activation -> Outcome		-0.07	-0.35
Model Fit Indexes			
RMSEA		0.02	0.001
CFI		0.96	1.00
TLI		0.94	1.00

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