

- Phinney, J. S., & Ong, A. D. (2007). Conceptualization and measurement of ethnic identity: Current status and future directions. *Journal of Counseling Psychology, 54*(3), 271–281.
- Ponterotto, J. G., & Park-Taylor, J. (2007). Racial and ethnic identity theory, measurement, and research in counseling psychology: Present status and future directions. *Journal of Counseling Psychology, 54*(3), 282–294.
- Santos, S. R., & Cox, K. (2000). Workplace adjustment and intergenerational differences between matures, boomers, and Xers. *Nurse Economics, 18*(1), 7–13.
- Strauss, W., & Howe, N. (1991). *Generations: The history of America's future, 1584 to 2069*. New York, NY: Morrow.
- Tajfel, H., & Turner, J. C. (1985). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (2nd ed., pp. 7–24). Chicago, IL: Nelson-Hall.
- Twenge, J. M., Campbell, S. M., Hoffman, B. J., & Lance, C. E. (2010). Generational differences in work values: Leisure and extrinsic values increasing, social and intrinsic values decreasing. *Journal of Management, 36*(5), 1117–1142.
- Westerhof, G. J., & Barrett, A. E. (2005). Age identity and subjective well-being: A comparison of the United States and Germany. *Journal of Gerontology Series B: Psychological Sciences and Social Sciences, 60*(3), S129–S136.

## Positive Industrial and Organizational Psychology: Designing for Tech-Savvy, Optimistic, and Purposeful Millennial Professionals' Company Cultures

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The purpose of this rebuttal to Costanza and Finkelstein (2015) is (a) to examine the findings surrounding the new generations at work, (b) to suggest the risks of not responding to change in generations with new talent strategies, and (c) to propose a new theory about the development of a new millennial culture and how practitioners and researchers may capitalize on the promise of a more positive and joyful workplace culture. We propose

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to accomplish these points by (a) citing recent global findings showing that Millennials (born after 1980) are turning away from companies with cultures that were designed for 20th century workers, (b) presenting a theory on the development of an emerging millennial culture that is based on positive industrial and organizational psychology, and (c) recommending that the method of innovation design teams be used to render workplaces compatible with the emerging culture.

### **New Research**

Millennials are a force to be reckoned with. In the years from 2002 to 2006, “Millennials [grew] from 14% of the [U.S.] workforce to 21%—nearly 32 million workers” (Hirschman, 2006); the U.S. Bureau of Labor Statistics (2010) reported there were 40 million millennial-age workers, outpacing Baby Boomers, whose numbers in the workforce are declining. Any trend affecting that significant portion of the working population must be given attention.

In 2011, leading companies began discovering such a trend, and the problem was with their talent management capabilities. Millennials they had happily hired into top-pay positions were leaving their employ before completing 2 years on the job (Grace & Graen, 2014; Graen & Schiemann, 2013; PwC, 2013; Sujansky & Ferri-Reed, 2009). The belief on the part of several highly visible companies that they may be losing valuable employees motivated large-scale surveys, whose results suggest that there might be distinct values and preferences associated with millennial professionals.

In 2013, big data studies were completed by the University of California and the London School of Business, focusing on what PriceWaterhouse-Coopers identified as a critical generational problem (PwC, 2013). Results of these 2-year global studies concluded that existing 20th century talent strategies were in some ways incompatible with the values and expectations of millennial professionals and recommended designing a profoundly different approach (Graen & Grace, 2015; Levenson & Deal, in press; Levenson, Mohman, Benson, Deal, & Salazar, 2015; Myers & Sadaghiani, 2010; PwC, 2013, 2014, 2015).

In addition, large studies by Deloitte (Brooks, 2015; M. Brown, 2013), Johnson Controls (Johnson, 2010), Clark University (Schutte, 2014), Duke University (Graham, 2014), and others supported the conclusions of these studies (Graen, Grace, & Canedo, in press). Moreover, studies of Google’s company culture further tested and supported the hypothesis that the talent strategies designed to attract and retain the best young people may have an influence (Graen & Grace, 2015). Although the new talent strategies remain works in progress, their results globally have been encouraging (PwC, 2014).

**Table 1. The PwC Study Recommends**

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1. A flexible work culture based on unique talent and engagement
  2. Access to the best tools for collaboration and operation
  3. Transparent performance and reward decisions
  4. Building workplace culture maintained by unit (team) managers
  5. Greater opportunities as expats
  6. Improving the impact of Millennials as contingency workers
  7. Connecting and staying connected with all employees
  8. One size does not fit all
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*Note.* From *Millennial Spring: Designing the Future of Organizations*. Vol. IX. *LMX Leadership: The Series*, by G. B. Graen and M. Grace, 2015. Charlotte, NC: Information Age. PwC = PriceWaterhouseCoopers.

In sum, this movement to new talent strategies is likely to be a differentiator among leading firms in the near future (Grace & Graen, 2014).

The big data studies are impressive for both their scope and depth. For example, the studies of PriceWaterhouseCoopers claimed to be the largest generational investigation ever conducted. This investigation involved 20 global territories, 44,000 web-based surveys, 1,000 millennial professionals and 45 managers in online “jam” sessions, 300 interviews, and 30 focus groups (PwC, 2013). Recommendations from the study are shown in Table 1.

In agreement with these recommended features, the results of a yearlong, embedded study of Google suggested that the climate and structure of this organization might play a positive role in attracting and retaining the best young innovators. The following attributes were identified (Steiber, 2011):

1. **An innovative and flexible culture and management system** that replaces rules with guidelines, and commands with peer-oriented negotiating among associates across pay levels.
2. **A company strategy that values employees and customers equally** and demonstrates that belief by selecting the best and treating those employees as main contributors by providing proper career opportunities and rewards, and trusting them with inside information.
3. **Encouraging and training managers at all levels to work with individuals in appropriate ways** by tailoring, mentoring, and coaching activities and clearing away impediments.
4. **Balancing the emphasis on innovation and operational excellence** by fostering the development of subcultures that are equally valued.
5. **Extending strategic networks** for externally developed technical innovations, forming cooperative alliances with leading universities/researchers, and investing in new technologies and ventures.

6. **Designing collaborative communities** of professional peers learning from each other.
7. **Overall emphasis on having fun** while serving the greater good.

In a recent editorial, the editors of the *Academy of Management Journal* point out that the

Generation Y workforce (aka Millennials) . . . who tend to be well-educated, well-networked, multilingual, and self-determined, are looking for jobs that enable personal growth and development of self, and yet in their job search, typically encounter workplaces that are suffering from restrictive hierarchies, high levels of routinization, and do not offer the preferred flexible and multifaceted activities [they desire]. (Gruber, de Leon, George, & Thompson, 2015, p. 4)

This raises questions: (a) What were the driving trends that permitted such an innovative culture to develop and take hold of those born after about 1980? (b) What are the identifying characteristics of this new culture? (c) How may a more compatible talent strategy be designed and implemented? (d) How will this new culture change as the driving trends continue to transform our youth?

#### **The Making of Millennial Culture: A Theory**

The authors of the lead article suggest that no theory is sufficient for explaining the Millennials' reaction to the existing workplace culture. We respectfully disagree. Cultural experiences make every generation unique (Espinoza, 2012, p. 23), and each generation plays a role in the cultural theater. Humans are an adaptable species, and there is ample evidence in our history books of movements that caused us to adapt our cultures to address opportunities and threats as they emerged across time and across the globe. As context for this article, we studied the defining events that happened during the formative years of those born since 1980 and found three powerful culture-shifting movements that doubtless have impacted the psyche of Millennials, in the Western world, but globally as well: positive psychology, information technology, and innovation. We argue that a key to the explanation of the "culture shock" being experienced by Millennials in the workplace can be found in the nexus of these movements.

In the early decades of the 20th century, the scientific management of workers (Taylorism) and the standardized, industrial, mass production of goods (Fordism) redefined not only the nature of the workplace but also the entire operation of organizations. In a similar vein, the process re-engineering of the 1990s and early 2000s that focused on operational effectiveness created business processes that were engineered rather than designed. (Gruber et al., 2015, p. 3)

These Academy of Management editors identified the drivers for this "new workplace experience—NWX" as the "competition for talent, with companies designing [their] employee experiences and the services that support them in order to enable them to deliver value to clients" (p. 4).

What is called the “experience economy” (Gruber et al., 2015) where businesses “orchestrate memorable experiences for their customers” (p. 3) is mirrored in the recent view that employees have value equivalent to customers in the business value chain. The “switching economy” (Gruber et al., 2015, p. 3), characterized by the switching of product and service providers by their customers is a parallel phenomenon to the switching of employers by Millennials when they encounter a less than compatible work culture. This is an emergent talent management challenge. The movements that framed and contributed to the formation of the millennial mindset are discussed next.

### ***Positive Psychology Movement***

The *positive psychology* movement took hold globally about 1980. One of its tenets was the importance of the early development of a positive self-image. Adults were encouraged to treat children as “special” individuals and prioritize praise for participation (Drew, 2015). This movement encouraged adults to treat youths as peers and to protect children from damaging their positive self-concepts in their personal interactions. Not only were child-rearing practices changed dramatically during this period, but schools, churches, social activities, and finally the universities were changed (Graen & Grace, 2015).

On the basis of published research, current culture appears to be more concerned with the development of self-concept knowledge and positive feelings than in the past (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001; Craig, 2006). This has been described as a positive psychology of growth. One objective is to protect the individual’s feelings of respect for one’s self. It prescribes that participation should be given priority over defeat and that individuals should not experience failures that may lead to a loss to one’s self-concept. In that age, adults were instructed to treat youth as peers by engaging in rational discourse at the proper level. As children matured, they were encouraged to be entrepreneurial. They were educated to be sensitive to individual and cultural differences and, ultimately, make this a better world. Later, as they entered the workforce, this entrepreneurial mindset encouraged them to be “self-starters” and to “think outside the box.” Around the same time, business practices were being transformed and decision making began shifting from management to professionals working in flexible teams of peers. Cross-functional teams brought together diverse knowledge and began to use the latest information technology tools that brought the world’s knowledge to their computer screens.

In spite of published research showing negative or null relationships, the positive psychology movement has grown into a global force in industrialized nations. It has established the rules for proper education of chil-

dren. It began in the late 1960s with the publications of professor of psychology Stanley Coopersmith, from California, and John Vasconcellos, state assemblyman, persuading the California governor to establish a self-esteem taskforce, which resulted in legislation. Today, the positive psychology of development and maintenance is taught in schools, churches, social programs, government organizations, and universities globally. Academic research finds that the millennial generation has shown higher self-esteem ratings and beliefs than did their parents at the same time in college (Twenge, 2000). As Craig (2006) states, the real question is “about how relevant self-esteem issues are across different domains such as education and work.” Twenge’s big data research showed that in a sample of 40,000 children, the Coopersmith Self-Esteem Inventory (SEI) decreased between 1965 and 1979 and then increased from 1980 to 1993 (Campbell, 1993). Moreover, this trend was shown only for children and not for college students. This seems reasonable in view of facts that the self-esteem movement became a fixture of educational systems in about 1980, and the children’s SEI considers specific areas, including family, peers, and school. When correlations are found between social indicators and self-esteem, Campbell finds it involves children and not adults.

Positive psychology has two concepts, namely, the idea of feeling good and doing well. The general idea is that positive reinforcement of each other’s self-concepts will lead to psychologically stronger people who experience feelings of joy and efficacy. The objective is to teach children from birth to maturity to respect and treat others with ego-boosting opportunities. Available institutions of socialization, namely, schools, churches, social groups, health organizations, and other agencies were employed to educate parents and children on the basis of this prevailing theory. They aimed to create a kinder and gentler culture; one in which everyone is valued and expects to be positively reinforced for participating and thereby contributing something positive no matter how small (Seligman, 2006; Trzesniewski & Donnellan, 2010). During the same period, the middle class grew and further provided a sense of self-confidence and economic security. Finally, children were told that they were the promise of a far better world. These beliefs, to the extent they are actually held by millennial professionals, are likely to influence their preferences regarding work organizations.

### ***Information Technology Movement***

In parallel, computer and Internet applications exploded in the 1980s and thereafter with ever increasingly powerful products and capabilities that eventually became available to anyone with a smart phone. This disruptive technology permanently shifted the concept that one person can change the world from myth to reality. Considering only the inventions of Steve Jobs



since 1980, the list includes Apple III, MacG<sub>3</sub>, USA Mouse, iPod, MHCG<sub>4</sub>, iPod GUI, Power Adapter, iPhone, Magic Mouse, iPod Shuffle, iPhone 4, and iPad (Grace & Graen, 2014). Children born during 1980 and thereafter grew up with the computer as a best friend and companion. The rapid improvement in computer applications frustrated their parents' generation, and many refused to learn how to operate yet another application language. In contrast, young people were attracted to these tools and integrated them into their social lives 24 hours a day and 7 days a week. One side effect of this was that children earned higher status because they were more tech savvy than their parents' generation and could help adults with the ever-changing products. Gradually, social customs evolved making the computer applications necessary for nearly all social activities. The hardwired appliances were rendered obsolete. New social rules and norms were invented to routinize the new culture. These changes were gradually accepted as the reality of the millennial culture. The beat goes on, as Millennials' culture crashes into the culture of their parents.

If we look at just one area of information technology, data analytics (the process of discovering useful knowledge from data), we can see profound changes impacting the relationship between managers (who are still largely of the Baby Boomer generation) and Millennials. Researchers have argued that "the quality of rapport that is established between Millennials and their managers directly impacts both short-term and long-term personal and organizational effectiveness" (Espinoza, 2012, p. 53).

As more and more activity is digitized, equipment and storage costs become ever cheaper, and technology tools that operate to explore and mine valuable insights become easier to use, a new era dawns where business insights can be gleaned on any topic of interest. Business and technology management are at a point of convergence. Technology has become integral to business, in either its products and services or its internal processes or both. (Grace, 2014, p. 23)

A data-oriented culture, which is a "pattern of behaviors and practices by a group of people who share a belief that having, understanding, and using certain kinds of data and information plays a critical role in the success of the organization" (Kiron, Ferguson, & Prentice, 2013, p. 18), is becoming the norm, and Millennials represent the nexus where organizational design strategies and business value creation intersect. Twenty-first century business is paying attention.

A tension point is clearly developing in decision making in business, an area that has traditionally been the purview of managers. Information technology has brought the power of computing to decision making, and the availability of vast oceans of data on any subject requires powerful modeling and simulation capabilities that have only recently been taught in universities. The quandary of how to extract value from data is driving a management revolution that is fundamentally changing "long-standing ideas about

the value of experience, the nature of expertise, and the practice of management” (Brynjolfsson & McAfee, 2012, p. 62). “We are on the cusp of an analytics revolution that may well transform how organizations are managed [as well as the] societies in which they operate” (Kiron et al., 2013, p. 2).

Decision makers across the globe who have been highly compensated for their intuitive and experience-based business knowledge are engaged in a serious paradigm shift as they learn to accept as input to their decision-making process evidence that is compiled by young millennial data experts who study patterns in vast datasets and translate those patterns into business insight. This will drive serious changes to organizational cultures and structures. (Grace, 2014, p. 22)

Tension necessarily results if traditional habits and patterns of decision making, on which careers have been built, are challenged by new ways of thinking and a constant barrage of new tools. It can be understood in such a context that “a manager’s response to points of tension with Millennials determines managerial success or failure” (Espinoza, 2012, p. 53). Job satisfaction for both manager and employee in this situation can be affected. “Data analysis [shows that] Gen Y (millennial) groups [are] different from both Gen X and Boomer cohorts concerning generational preferences of leadership behaviors and levels of job satisfaction” (Carley, 2008, p. 136). Similar findings came from Linda Dulin’s (2005) research on the preferences of Millennials for leaders that are welcoming of those with new skills, who can serve as a sounding board for ideas and strategies, who are cheerleaders and boosters of employees’ self-esteem, and who can broker access to challenging assignments. There is evidence that Millennials hold different expectations regarding managers and workplace design than do members of previous generations.

This different kind of workplace is becoming known as “digital business . . . the creation of new business designs by blurring the digital and physical worlds. Digital business promises to usher in an unprecedented convergence of people, business, and things that disrupts existing business models” (Lopez, 2015, p. 1) by exploiting the innovation movement. Digital business runs on innovation.

### ***Innovation Movement***

The final piece of the theory of this emergent millennial culture is its relationship to the innovation movement as the business strategy of the future. Given the apparent success in the market of the Goggle-like companies based on innovative products and services, business strategies are evolving from a focus on productivity and cost savings, exemplified by the “lean movement” to a focus on growth, and revenue enhancements, exemplified by the innovation movement (Brooks, 2015).



There can be no doubt that innovation in the 21st century is dominated by the disruptive forces of mobile, social, cloud, and information technologies, and these disruptors are a main differentiator between the generations. Millennials do not know a world without technology; it is just part of their contextual reality, and it is their reality that is taking over, and just one metric can illustrate the situation: smartphone ownership. Millennials are the largest segment of smartphone owners. In the second quarter of 2014, 85% of Millennials aged 18–24 owned devices, and 86% aged 25–34 owned them, representing an increase from 77% to 80%, respectively, in the second quarter of 2013 (Nielsen Newswire, 2015). So, why is this platform so important? “Smart phones have been unprecedented in their impact on a wide range of consumers, from individuals to global enterprises. When coupled with mobile networks for ubiquitous coverage and capacity, smart phones have the ability to commoditize innovation” (King, 2014).

Innovations were the ideas that the Internet sent worldwide, opening new markets, breaking down trade barriers, and blasting through outdated business models. Now, smartphones are the vehicle for carrying the innovation movement worldwide. Clearly, it was not a single event but a movement that caught on and changed everyday life. An explosion of research and business publications on innovation as the defining business movement of the 21st century has flooded media channels (T. Brown, 2009; Grace, 2009; Grace & Graen, 2014; Martin, 2004, 2011) and made employees valued on a par with customers (Grace, 2014).

The linking of design principles and practices with innovation brought a method to the magic of innovation and enabled it to become a major driver of organizational culture. The evidence for the innovation movement’s global presence was presented in the publications of the U.K. Department of Business Innovation’s Design Council. These publications point to “governments investing heavily in sponsoring and promoting design as a key to stimulating innovation, jobs and exports as a means to systematically address challenges” (Temple, 2010, p. 1). One such publication cites that

China’s Prime Minister, Wen Jiabao stated a desire to move from “made in China” to “designed in China.” Over recent years, China has driven national and regional design policy, with investments in education and national promotion. Other Asian governments are vigorously committed to promotion of design, notably those in Singapore, Korea and Malaysia. (Temple, 2010, p. 1)

Twenty-first century business is embracing design methods as a way to access and leverage the creative consciousness of employees as they work to make the shift from the era of the expert individual to integrated and collaborative teams working together through a knowledge-creation paradigm. Design practice follows a qualitative, collaborative, and human-centered methodology, iterating through a process that begins with formation of a

design team and development of shared empathy for the context, for the customer. The team then works toward and achieves a shared point of view or vision with all the stakeholders, uses modeling and nonverbal communication media as the language of design, employs synthesis and pattern formation as thinking tools, and leverages a “build to think” learning paradigm in the creation of rapid, low-fidelity prototypes that experiment with choices and drive out insights and shared meaning for more adaptable and flexible results. Design provides a comprehensive guide to one of the thorniest problems of the innovation movement; that is, *how to do innovation*.

Based on these movements and their impact on the life experiences of Millennials, our theory of a new cultural vision for millennial professionals follows. This new culture was described above based on recent trustworthy studies. This culture, as we see it, is what many Millennials expect as normal life. They seek to continue this culture during their careers in their workplaces. Unfortunately, existing talent strategies may not have adapted to this new reality (PwC, 2013).

### Conclusion

Judging from the reasons for some Millennials quitting their dream career employer and the identified characteristics of the corporate culture that would encourage them to join and stay, those who resigned prematurely might be described as suffering from a “culture shock” (Honore & Schofield, 2012). If they were socialized from infants to college graduates under a positive psychology, tech-savvy innovation culture and were transported to a foreign business culture where they were shocked by their bosses’ lack of understanding that creativity is encouraged by natural rhythms, not rules and restrictions, this is likely to lead to negative perceptions of the workplace. Further, if these professionals desired and expected time for innovation and fun but were not given opportunities for this, this discrepancy could lead to more disconnect with the workplace. The lack of teams of peers learning from each other is likely to have left many millennial professionals with empty feelings. This, in turn, could lead them to react to their culture’s incompatibility with their parents’ work culture by quitting their career jobs and going home to welcoming families.

In concluding, (a) we find that many Millennials have been found to demand a different talent strategy than those designed for Baby Boomers, (b) we find that some leading companies globally are changing their talent strategies to become more compatible with the millennial culture, (c) we recommend an innovation design team approach to make needed changes in constructing new talent strategies (Graen & Grace, 2015), and (d) finally, we propose a new theory of three game-changing movements that have influenced the development and life experiences of Millennials (positive psychol-

ogy, information product improvements, and the innovation search). These three movements continue to be influencers and are contributing to a new culture for Millennials that is normatively different from their parents' culture. Our theory summarizes existing research findings in the workplace and hypothesizes new relationships. A few of these hypotheses are as follows.

*Hypothesis 1:* The new “Leadership-Motivating Excellence” (LMX) Team practices will be more effective with members of the millennial generation than will traditional command and control management practices (Graen & Schiemann, 2013).

Millennial professionals demand more from their company culture, more than their preceding professionals in terms of the following:

*Hypothesis 1:* Flexibility based on unique talent and engagement

*Hypothesis 2:* Access to the best tools for collaboration and operation

*Hypothesis 3:* Transparent performance and reward decisions

*Hypothesis 4:* A workplace of peers learning from each other

*Hypothesis 5:* Opportunities and rewards for former employees

*Hypothesis 6:* Opportunities as contingency workers

*Hypothesis 7:* Connecting and staying connected with all coworkers

*Hypothesis 8:* Continuous improvement

Our first hypothesis was stated as referenced in 2013. The remaining hypotheses are stated herein. The first hypothesis is that LMX-Team practices are compatible with the new millennial culture (described by the editors of the *Academy of Management Journal* as the “New Workplace Experience or NWX”; Gruber et al., 2015). Hypotheses 2 to 8 were based on empirical research findings reviewed above.

Factors that influence the [LMX/NWX] include the organizational design and related incentives and management procedures; the task and associated business process design; the support tools and information services that enable the execution of the task; the physical and virtual environment in which the task takes place; the internal interaction between employees within a business or organizational function, as well as between functions and the extended enterprise and its partners and customers; and the organizational culture and communications and human resource support programs. (Gruber et al., p. 4)

Our theory about the development of a new millennial culture may be fruitful in designing innovative structures to render any existing dysfunctional talent strategy obsolete and replacing it with a more appropriate one for the “new game changers” (Graen & Grace, 2015).

## References

- Bandura, A., Barbaranelli, C., Caprara, G. V., & Pastorelli, C. (2001). Self-efficacy beliefs as shapers of children's aspirations and career trajectories. *Child Development, 72*(1), 187–206.

- Brooks, C. (2015, January 15). The corporate values that attract millennial employees. *Business News Daily*, Retrieved from <http://www.businessnewsdaily.com/7673-attract-millennial-employees.htm>.
- Brown, M. (2013). Business needs to reset its purpose to attract Millennials, according to Deloitte's annual survey. Retrieved from <http://www.slideshare.net/fred.zimny/deloittes-millennial-innovation-survey-2013>
- Brown, T. (2009). *Change by design: How design thinking transforms organizations and inspires innovation*. New York, NY: Harper Collins.
- Brynjolfsson, E., & McAfee, A. (2012). *Race against the machine: How the digital revolution is accelerating innovation, driving productivity, and irreversibly transforming employment and the economy*. Lexington, MA: Digital Frontier Press.
- Campbell, W. K. (1993). Self-esteem of college students increased substantially over 25-year period. Retrieved from <http://www.mentalhealth.about.com>
- Carley, P. (2008). *Generational perceptions of leadership behaviors and job satisfaction among healthcare professionals in Western New England* (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses database. (Publication No. AAT 3345039)
- Costanza, D. P., & Finkelstein, L. M. (2015). Generationally based differences in the workplace: Is there a there there? *Industrial and Organizational Psychology: Perspectives on Science and Practice*.
- Craig, C. (2006). A short history of self-esteem. Retrieved from <http://www.centreforconfidence.co.uk>
- Dulin, L. (2005). *Leadership preferences of a Gen Y cohort: A mixed methods study* (Unpublished doctoral dissertation). University of North Texas, Denton.
- Drew, A. (2015). Talkin' about your generation. *Observer*, 28, 1.
- Espinoza, C. (2012). *Millennial integration: Challenges Millennials face in the workplace and what they can do about them* (Unpublished doctoral dissertation). Yellow Springs, OH: Antioch University.
- Grace, M. (2009). What is a game-changing design? In G. Graen & J. Graen (Eds.), *Predator's game-changing designs: Research-based tools. Vol. VII. LMX Leadership: The Series* (pp. 1–18). Charlotte, NC: Information Age.
- Grace, M. (2014). Welcome to the future of organizations. In M. Grace & G. B. Graen (Eds.), *Millennial spring: Designing the future of organizations. Vol. IX. LMX Leadership: The Series* (pp. 15–40). Charlotte, NC: Information Age.
- Grace, M., & Graen, G. B. (Eds.). (2014). *Millennial spring: Designing the future of organizations. Vol. IX. LMX Leadership: The Series*. Charlotte, NC: Information Age.
- Graen, G. B., & Grace, M. (2015). *New talent strategy: Attract, process, educate, empower, engage and retain the best* (SHRM–SIOP White Paper). Retrieved from [http://www.siop.org/Userfiles/Image/SHRM-SIOP\\_New\\_Talent\\_Strategy.pdf](http://www.siop.org/Userfiles/Image/SHRM-SIOP_New_Talent_Strategy.pdf)
- Graen, G. B., Grace, M., & Canedo, J. (in press). A new approach to integrating information technology and human resource science within the evolving design movement: Training teams and professional coaches in implementing proper information applications and team leadership in innovation design teams. *IT and HR Journal*.
- Graen, G. B., & Schiemann, W. (2013). Leadership-motivated excellence theory: An extension of LMX. *Journal of Managerial Psychology*, 28(5), 452–469.
- Graham, J. (2014). *Duke University, CFO survey*. Retrieved from <http://www.CFOsurvey.org/2014>.

- Gruber, M., de Leon, N., George, G., Thompson, P. (2015). From the editors: Managing by design. *Academy of Management Journal*, 58(1), 1–7.
- Hirschman, C. (2006, July 1). Here they come. *Human Resource Executive*, 6–22.
- Honore, S., & Schofield, C. P. (2012). *Culture shock: Generation Y and their managers around the world*. Hertfordshire, United Kingdom: Ashridge Business School Press.
- Johnson, C. (2010). Generation Y and the workplace. In *Global Workplace Innovations*. Retrieved from <http://www.OXYGEN.com>
- King, A. (2014, October 31). Mobile as the foundation for enterprise innovation. Retrieved from <http://www.spidercloud.com/blog/2014/10/31/mobile-foundation-enterprise-innovation>
- Kiron, D., Ferguson, R. B., & Prentice, P. K. (2013, March 5). From value to vision, reimagining the possible with data and analytics. *MIT Sloan Management Review*. Retrieved from <http://sloanreview.mit.edu/reports/analytics-innovation/>
- Levenson, A., & Deal, J. (in press). *What Millennials want from work. How to maximize engagement in today's workforce*. Greensboro, NC: Center for Creative Leadership.
- Levenson, A., Mohman, S., Benson, G., Deal, J., & Salazar, M. (2015). *Optimizing human capital and employee fit and engagement: Implications for managing the new generation of Millennials in the workplace*. Retrieved from [http://ceo.usc.edu/project/optimizing\\_human\\_capital\\_and\\_e.html](http://ceo.usc.edu/project/optimizing_human_capital_and_e.html)
- Lopez, J. (2015). *Putting digital business to work in 2015*. Retrieved from <http://www.gartner.com/technology/research/digital-business/>
- Martin, R. (2004). *The design of business: Why design thinking is the next competitive advantage*. Boston, MA: Harvard Business Press.
- Martin, R. (2011). *The innovation catalysts*. Boston, MA: Harvard Business Press. Retrieved from <https://hbr.org/2011/06/the-innovation-catalysts/ar/1>
- Myers, K. K., & Sadaghiani, K. (2010). Millennials in the workplace: A communications perspective on Millennials' organizational relationships and performance. *Journal of Business Psychology*, 25(2), 225–238.
- Nielsen Newswire. (2015). *Mobile Millennials*. Retrieved from [www.nielsen.com/us/en/insights/news.html](http://www.nielsen.com/us/en/insights/news.html) on 5/22/15
- PwC. (2013). *Price Waterhouse Coopers next generation: A global generational study*. Retrieved from <http://www.pwc.com>
- PwC. (2014). *Annual global CEO survey (2013)*. Retrieved from <http://www.PwC.com>
- PwC. (2015). *Annual global CEO survey (2014)*. Retrieved from <http://www.PwC.com>
- Schutte, B. (2014, October 9). New poll: Reality may bite, but 30-somethings stay wildly optimistic. *The Washington Post*. Retrieved from <http://www.washingtonpost.com/news/local/wp/2014/10/09/new-poll-reality-may-bite-but-30-somethings-stay-wildly-optimistic/>.
- Seligman, M. E. P. (2006). *Learned optimism: How to change your mind and your life*. New York, NY: Vintage.
- Steiber, A. (2011). *Research report on managerial leadership needs*. New York, NY: Society for Human Research Management (SHRM).
- Sujansky, J., & Ferri-Reed, J. (2009). *Keeping the Millennials: Why companies are losing billions in turnover to this generation and what to do about it*. Hoboken, NJ: Wiley.
- Temple, M. (2010). *The Design Council review*. Retrieved from <https://www.gov.uk/government/organisations/department-for-business-innovation-skills>

- Trzesniewski, J. M., & Donnellan, M. B. (2010). Rethinking “Generation Me”: A study of cohort effects from 1976–2006. *Perspectives on Psychological Science*, 5(1), 58–75. doi:10.1177/1745691609356789.
- Twenge, J. M. (2000). The age of anxiety? Birth cohort change in anxiety and neuroticism, 1952–1993. *Journal of Personality and Social Psychology*, 79(6), 1007–1021. doi:10.1037/0022-3514.79.6.1007.
- U.S. Bureau of Labor Statistics. (2010). BLS News. Retrieved from <http://www.bls.gov.ces/>