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The NCIOP Newsletter

March, 2018
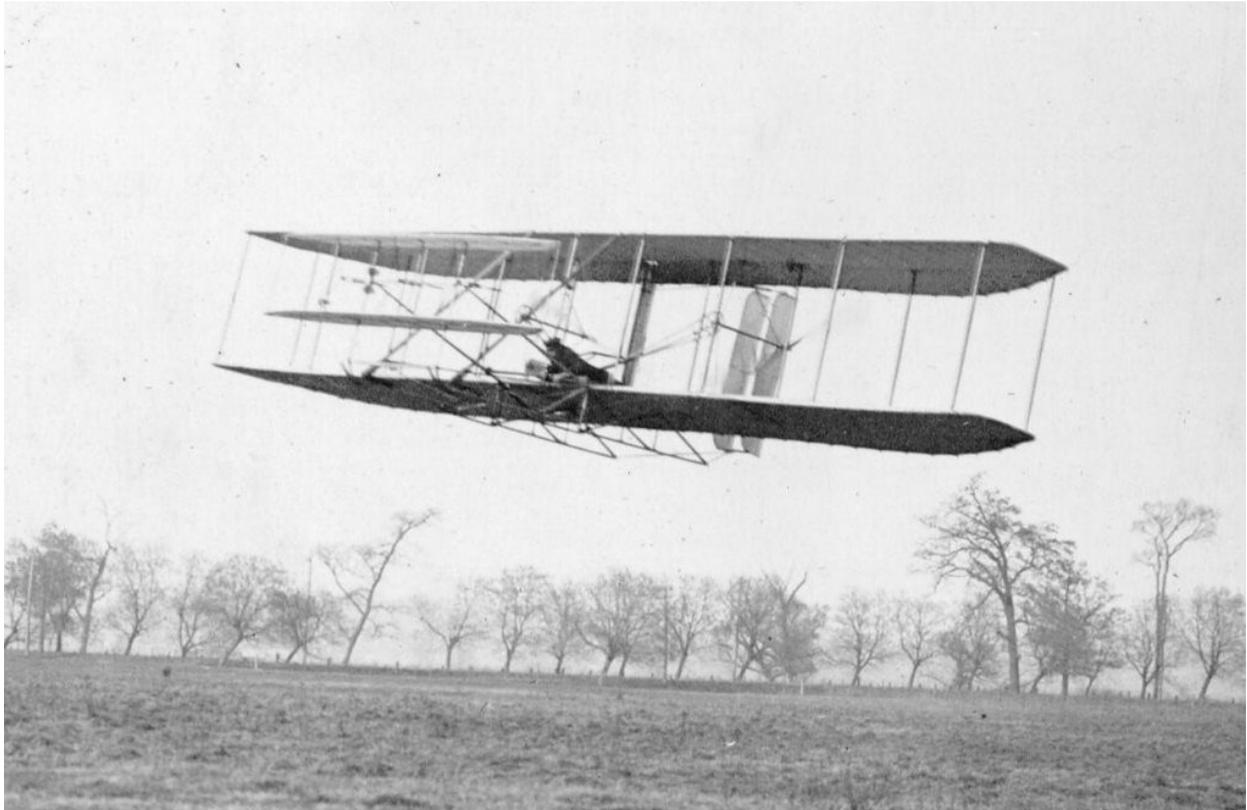
Website: http://www.nciop.org/
Listserv: Send email to NCIOP@LISTS.NCSU.EDU to share with entire community.

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NCIOP Mission Statement

The purpose of the North Carolina Industrial-Organizational Psychology group is to provide professional development opportunities for current and aspiring industrial/organizational psychologists.

To achieve this Mission, NCIOP will:
- Provide a forum for sharing information about current practices and emerging trends
- Foster collaboration among members, and
- Advance understanding of appropriate application of I/O principles and tools

Our membership is open to the North Carolina I/O community including academicians, practitioners, graduate students, and other interested individuals.

Upcoming Meeting Information (Spring 2018)

When and Where
Friday, March 16, 2018 at 9:00 am to 2:30 pm
1 Leadership Pl, Greensboro, NC 27410
RSVP to the Meeting

Morning Session by Marc Effron
What's that smell? Dirty science and why I-O needs to keep it clean.
By Marc Effron, President @ The Talent Strategy Group (Profile)

Afternoon Session by Dr. Shuffler
I-O psychology and NASA's Mars Mission.
By Marissa Shuffler, Ph.D., Assistant Professor @ Clemson University (Profile)

Host and Sponsor
Center for Creative Leadership (CCL)

Agenda
9:00 am – 10:00 am	Arrive and Sign-in; Light Breakfast
10:00 am – 10:15 am	Welcome & Intro with Julia Brandon, Ph.D., NCIOP's Chair
10:15 am – 11:45 am	Morning Session with Marc Effron, M.B.A.
11:45 pm – 1:00 pm	Lunch, Networking, & Business Announcements
1:00 pm – 2:00 pm	Afternoon Session with Marissa Shuffler, Ph.D.
2:30 pm	Adjourn

Notes
Costs: $40 for professionals, $15 for students. No membership is required for attendance.
Lunch and drinks: provided on-site through the meeting costs.
Arrival: sign in at the front desk at CCL and you will be lead to the meeting room.

Upcoming Meeting Speakers' Bios (Spring 2018)

## Marc Effron, MBA, The Talent Strategy Group

Marc Effron helps the world's largest and most successful companies improve the quality and depth of their talent. As the founder and President of the Talent Strategy Group, he leads the firm's global consulting, education, executive search and publishing businesses. Marc co-authored the Harvard Business Review Publishing best-selling book One Page Talent Management, often called the "talent management bible." Companies worldwide apply its discipline of science-based simplicity, accountability and transparency. His upcoming book 8 Steps to High Performance will be published by Harvard in July 2018. Marc publishes Talent Quarterly magazine which he founded in 2013 to help executives make smarter decisions about how to manage talent. Prior to forming The Talent Strategy Group, Marc served as VP, Talent Management for Avon Products and led Global Leadership Consulting Practice for Aon Hewitt. He was also SVP, Leadership Development for Bank of America and a Congressional Staff Assistant. Marc is a sought after speaker on talent management and leadership topics by both corporations and conferences. He is widely quoted on talent issues in the business media and has been recognized as one of the Top 100 Influencers in HR. Marc founded and leads the New Talent Management Network, a non-profit HR networking and research organization that is now the world's largest talent management organization with more than 3,000 members. Marc earned a M.B.A. from the Yale University School of Management and a B.A. in Political Science from the University of Washington.

Marissa Shuffler, PhD, Clemson University

Dr. Marisa Shuffler has over ten years of experience conducting basic and applied research in the areas of team development, leadership, and organizational effectiveness. Dr. Shuffler is an Assistant Professor of Industrial/Organizational Psychology at Clemson University. Dr. Shuffler has served as a lead researcher on numerous applied research efforts, including qualitative and quantitative research for NASA assessing the structure and behaviors needed for effective leadership in extreme environments, and the design of interventions for healthcare leadership and teamwork. Dr. Shuffler has conducted this and similar research for healthcare, government, military, and industry, including the U.S. Army Research Institute, NASA, the National Science Foundation, the Department of Homeland Security, the U.S. Air Force, and Greenville Health System, with over $2.3 million in cumulative grant funding as either a PI or Co-I from federal and private entities. Her work to date includes an edited book,

over 50 publications, and over 100 presentations. Dr. Shuffler was recently awarded a prestigious National Science Foundation CAREER grant for research exploring team profiles and team development interventions, and she is a co-investigator for a recently awarded NASA grant aimed at exploring multiteam systems in long duration spaceflight. Her work with NASA has been published in Small Group Research, American Psychologist, and the Journal of Organizational Behavior.
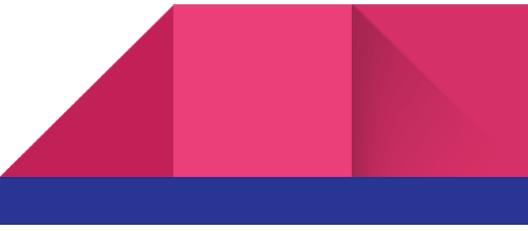
Message from the NCIOP Chair

By Julia Brandon, Ph.D.

Hello Everyone,

For many, the Olympic games help to foster a sense of connection, motivate us to be healthy and reach for our personal best. At least, while we are tuned into the games.

As Industrial and Organizational psychologists, we have the privilege of promoting connection, health, and performance in the workplace.

Dr. Amy Grubb's presentation, at our last meeting, highlighted practical tips for leveraging our individual strengths in service of the greater good. We can also use these tips to further strengthen the impact of our organization.

- **Build cathedrals-** As the story goes: a traveler was walking down the street in an unfamiliar town. The traveler asked a construction worker, "What are you doing?". The worker replied, "Isn't it obvious, I am laying bricks." Still curious, the travel asked the next worker, "What are you doing?" The worker said, "I am building a wall." The travel still didn't fully understand and asked another worker just down the block. This worker replied, "I am building a cathedral. The bricks I am laying here will be where the choir sings. Image the joy it will bring to the people in the cathedral."

  What are we building with NCIOP? By providing professional development opportunities for Industrial and Organizational psychologists, we are helping to build healthy, high performance workplaces across North Carolina, and beyond.

- **Most people are not their best when stressed-** Is this obvious? Yes, unfortunately, it is often obvious to others before it is obvious to the person who is stressed. While the topic of resilience is now a key trend, the effects of stress on performance have been researched for over 100 years. We can apply this scientific knowledge base to be our best, even during times of change. For example, we can **RISE**, or stay **r**esilient through **i**dentifying and **s**olving challenges to **e**nergize ourselves, along with the leaders, teams, and organizations we serve.
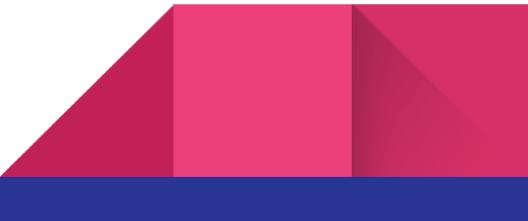
- **With all due respect, words matter-** As you know, it's not just what we do, but how we do it that matters. The words we chose influence how we are perceived by others. We can use words that reflect shared values, foster collaboration, and focus on "we" verses "me." For example, instead of saying, "Yes, *but*…" we can say, "Yes*, and*…" to affirm that we heard what our colleagues have said and build on each other's ideas rather than negate them. Our words can promote our ability to build connection.

In preparation for our meeting on March 16 at the Center for Creative Leadership, I am taking time to reflect on the questions below and invite you to do the same.

1) Do you have an inspiring healthy, high performance story to share?

2) How can you help our organization RISE, or stay resilient through identifying and addressing solutions so that we continue to be an energized organization?

3) When you attend our meeting, what if you replaced, "Yes but" with "Yes, and…"?

Thank you, Dr. Grubb, for helping us be the best organization we can be through leveraging our individual differences.

Julia Brandon, Ph.D.

2017/18 Chair, NCIOP

Spotlight Article

The New Wave of Replicators: Surf's up or Tsunami?
By Cynthia DeVita-Cochrane, Ph.D

As academics, we are compelled to publish or perish. As practitioners, we rely on the body of published studies to inform our practice of I-O psychology. We trust the time-honored methodologies of scientific inquiry that allow the literature to grow incrementally, drop by drop, study by study, increasing the depth of the sea of evidence; evidence that potentially wields influence well beyond our slice of social science. Academics and practitioners alike have confidence that inherent in this incremental knowledge-building process is the skeptical ethos, which journal editors and peer review boards adopt, to maintain the threshold of credibility. These revered sages act on behalf of the community as the gatekeepers for the flow of scholarly studies into the sea of influence. Recently however, this trusted process is under intense scrutiny. A storm, it seems, is brewing.

Generally, innovation in any field operates by challenging assumptions, questioning methods, and disrupting processes. Indeed, wide upheaval in business and tech has caused the term disruption to become a millennial buzzword. As I-O psychologists, we too are witnessing the ripples of disruption in our field, emanating from an innovative new wave of social scientists called replicators. Ripples may be an inadequate term for the impact of this group's replication efforts, as they appear to be more tempest than splash.

The replication of studies is not new (Rosenthal, 1979). Indeed, a key expectation in the scientific method is the assumption of ongoing debate between researchers, as each new study advances our understanding on a particular topic. What is new, is the much more aggressive approach of the new breed of replicators. With little regard for convention, they have leveraged the power of social media to engage a broad audience, turning the wave of change into a tsunami, at least as some researchers have experienced it (see Amy Cuddy's story here). Ultimately, replication advocates like Brian Nosek (Center for Open Science, Univ. of VA), Uri Simonsohn (Univ. of PA), and Michael McCullough (Univ. of Miami), ostensibly promote research activities that they assert make replication more likely if an actual effect exists. But, replicators are also fearless advocates of public debate between researchers, often breaking well established norms (like interrupting conference presentations) to drive their agenda. Further, replicators take aim at the entire system academic institutions rely upon to

promote faculty and award tenure. They blame institutions for pressuring academics to publish significant studies, and on journal editors for encouraging the same. Simonsohn and colleagues (Simonsohn, Nelson & Simons, 2014) note that the sheer number of published studies that show significance is impossible, given the inherent sampling error. They also call out journals for publishing one-and-done studies with "sexy" results to court headlines, despite questionable research design.

At the center of the issue is the integrity of the reported data in published studies. According to replicators, researcher activities like p-hacking, also called data-dredging, or data-snooping (the analysis of a data set to uncover patterns, in the absence of a hypothesis), is a violation of the scientific method. Some researchers view this approach as "allowing the data to speak for itself," which is generally accepted in exploratory, qualitative research, but this method arguably diminishes the reliability, validity, generalizability, and most certainly the ability to replicate quantitative results (Castro, Kellison, Boyd & Kopak, 2010). New wave replicators are also highly critical of the file drawer problem, a common practice of filing away studies or not reporting hypotheses that show non-significant results. Together, these actions by researchers, institutions, and journals, replicators argue, result in a general negative skewing of the literature (demonstrating mostly positive, significant results) that is misleading, at best (Fanelli, 2012). Subsequently, meta-analyses that rely on only published studies magnify this effect.

For academics, this debate is crucial. It is disrupting the life-blood of researchers with well-established careers, and derailing or calling into question several streams of popular research. One example is the recent debunking of ego-depletion effects (Carter, Kofler, Forster & McCullough, 2015). The question for the academic community then becomes whether to renegotiate expectations proactively in light of the controversy, or wait for the wave of disruption to force cultural shift. In other words, do we turn into the wave and surf it, or wait for the tsunami to re-form the landscape?

To their credit, Replicators are not merely peanut-gallery pundits poking holes in the efforts of other researchers. Most appear to be active researchers that put their own proverbial surfboards into the fray by adhering to the very rules they promote (as Brian Nosek did when he started the Center for Open Science). Uri Simohnson (notably, also following his own advice), makes 8 suggestions for how researchers can improve the reproducibility of their studies on his blog *datacolloda.org*:

1. In paper: provide an open-research statement (also disclose source of all support funds,
2. In paper: provide an online supplement, and link to its table of contents

3. In figure captions: give links to reproducible code
4. In code: include contact info and description
5. In code: clear outline of program below
6. In code: include at least one explanation comment per every three lines
7. Data: post data codebook (text file, variable name, description)
8. Data: post (also) rawest version of data possible – for open access

The replication wave also impacts practitioners. There is evidence that practitioners do not rely heavily on scholarly academic literature, rather they depend on their own publications to inform practice (a problematic gap, certainly, but one that is beyond the scope of this article - see Deadrick & Gibson, 2007). It remains that strong trends in academic research will eventually have larger influence in the applied realm, especially through meta-analytic studies. Further, study authors in practitioner-oriented publications may be equally prone to the behaviors replicators identify as problematic, but are perhaps less likely to be subjected to their scrutiny. Therefore, practitioners must consider and weigh the evidence they choose to trust. The bar should be high for evidence that informs practice, as practitioner/client interactions have direct and lasting impact. Recent scholarship is generally less reliable for application purposes, as are studies published in less well-regarded journals, or in non-peer reviewed sources. Also, according to most replicators, super-sexy study results should raise a yellow flag in general (see refutation on Carney, Cuddy & Yap, 2010 research on power posing for example: Ranehill, Dreber, Johannesson, et al., 2015).

So, will we witness a tidal wave of change in study design and data collection? In the near term, it seems unlikely, even with financial incentive to do so (e.g., Simonsohn offers one thousand dollars each to the first thousand researchers to pre-register their studies on *datacolloda.org*). Established researchers are unlikely to voluntarily put their hard-won careers under such scrutiny, and not just because millions in research funding is at stake. There is a personal cost to consider. The aggressive approach of many replicators has been highly criticized. In a recent column, the president of the APS (here) likened replicator behaviors to bullying, citing frequent *ad hominem* attacks by replicators as both unnecessary and personally damaging. Public social media and blog posts violate the norms of direct, civil, collegial communication expected by the peer review process. Further, critics of the replication movement cite statistical errors in some key replication efforts that void claims of failure to replicate (Gilbert, King, Pettigrew & Wilson, 2016). However, the wave of replication does not appear to be slowing even with these critiques. All academics and practitioners in I-O psychology are likely to be touched by this trend in some manner. So, whether we, collectively, surf or get swamped by this new wave, is a continuing topic for debate, in the best scientific tradition. Let's all do our homework.

For more on study pre-registration (spoiler: it doesn't solve everything): Go Here

For current discussion on replicator topics, see http://datacolada.org/

References

Carney, D., Cuddy, A. & Yap, A. (2010). Power posing: brief nonverbal displays affect neuroendocrine levels and risk tolerance. *Psychological Science, 21(10),* 1363-1368.

Carter, E., Kofler, L., Forster, D. & McCullough, M. (2015). A series of meta-analytic tests of the depletion effect: Self-control does not seem to rely on a limited resource. *Journal of Experimental Psychology: General, 144 (3),* 796-815. doi: 10.1037/xge0000083

Castro, F., Kellison, J., Boyd, S. & Kopak, A. (2010). A methodology for conducting integrative mixed methods research and data analyses. *Journal of Mixed Methods Research*, 4(4), 342–360. doi:10.1177/1558689810382916.

Deadrick, D. L. & Gibson, P. A. (2007). An examination of the research-practice gap in HR: Comparing topics of interest to HR academics and HR professionals. *Human Resource Management Review*, *17*, 131-139.

Fanelli, D. (2012). Negative results are disappearing from most disciplines and countries. *Scientometrics,* 90, 891–904.

Gilbert, D., King, G., Pettigrew, S. & Wilson, T. (2016). Comment on "Estimating the reproducibility of psychological science." *Science, (March), 351(6277).*

Ranehill, E., Dreber, A., Johannesson, M., Leiberg, S., Sul, S. & Weber, R. (2015). Assessing the robustness of power posing: no effect on hormones and risk tolerance in a large sample of men and women. *Psychological Science, 26(5),* 653-6.

Rosenthal R (1979) The file drawer problem and tolerance for null results. *Psychol Bull*, 86, 638–641.

Simonsohn, U., Nelson, L.D., Simmons, J. (2014). P-Curve and Effect Size: Correcting for Publication Bias Using Only Significant Results. *Perspectives on Psychological Science*, 9 (December), 666-681.

Summary of Previous Meeting

On Friday, September 29th, the North Carolina Industrial and Organizational Psychologists held their Fall 2017 semi-annual meeting. This meeting was hosted by Red Hat, a leading open-source software organization, whose products are reportedly used by the majority of Fortune 500 companies, and was sponsored by Paradigm Personality Labs, a global consulting firm and leader of individual difference solution, specializing in "Big 5" personality assessment, dedicated to sound personality solutions, and founded by NCIOP's own Pierce Howard. The meeting, led by former NCIOP president Jennifer Cline, discussed varying topics around the changing nature of the workplace and emphasized the importance of diversity and inclusion. The meeting began with a presentation on individual differences by Dr. Amy Grubb and concluded with a presentation on telecommuting by Dr. Kristen Shockley.

Dr. Grubb's Presentation on Individual Differences

NCIOP's Morning Session was led by Dr. Amy D. Grubb, the senior I/O Psychologist at the FBI. Dr. Grubb's presentation, *Acknowledging and Leveraging Individual Differences in your I/O Work and in your "Work" as an I/O Psychologist,* was one that we as I/O psychologists and practitioners should heed carefully. Dr. Grubb was quick to remind us that we are trained to find and fix the problems but rarely focus on WHY there are so many problems. The cause of these problems is likely due to I/O professionals focusing solely on the organizational aspects rather than considering individual aspects as well. By not treating people as unique individuals, the development of great leadership is hindered. Instead, what aids the development is: putting in time and effort into mentoring subordinates, working with those who are struggling, creating a climate where people can do their best, removing obstacles, leading by example, and building relationships throughout the organization. When we understand individuals, we better understand the performance metrics, can meet and exceed job requirements, and understand our communities. So as I/O psychologists, we should aim to work with other disciplines to better understand situations. Dr. Grubb detailed an example of how these ideas have been implemented in the SIOP Policing Initiative. The goal of the initiative is to advocate for the application of I/O psychology science to enhance the policing field while collaborating with other scientific and oversight entities. While the initiative is hard due to many internal and external pressures, the goal to changing the public's perspective on the police (from a policing force to a helping force) can be achieved through synergistic partnerships and implementing new processes based on good scientific principles. At the end of the presentation, Dr. Grubb reminded everyone that it
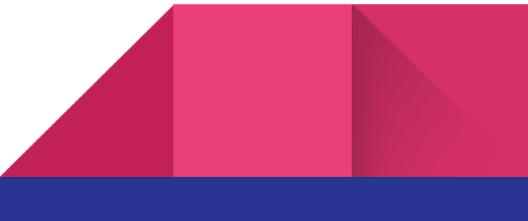
is important to prioritize individuals to bring out the most of them, be respectful but truthful with feedback, and avoid biased judgements.

Dr. Shockley's Presentation on Telecommuting

The afternoon session was titled *Telecommuting: The Good, The Bad, and The Unknown (and Mostly just the Science)* presented by Kristen M. Shockley, an assistant professor of psychology at the University of Georgia. Dr. Shockley first described the prevalence of telecommuting in the United States as well as around the world which is estimated to be between 20-25% of the workforce. Despite this large percentage of telecommuters, there still seems to be a large cloud of confusion concerning the subject. Currently, there is sparse research concerning the topic with only 2 true experiments on the subject. These studies both concluded that telecommuting has multiple benefits, for both the employer and employee. These benefits often times included working more minutes during the work day and more positive attitudes towards the company. However, there are some negative consequences associated with employees who telecommute. Promotion was less likely to occur for telecommuters as the organization views them as "out of sight, out of mind." Telecommuters also might suffer from social isolation due to their lonely work environments. Dr. Shockley concludes that telecommuting is not for everyone as well as not for every organization. Organizations need to plan before making telecommuting available to their employees. This planning includes establishing clear guidelines about expectations of telecommuters, creating an unbiased performance evaluation for all employees, keeping telecommuters "in the loop," and adapting organizational culture to accommodate telecommuters. As telecommuting becomes more prevalent around the world, organizations need to pay close attention to what the science is saying.

Recent Publications and Presentations by Members

Copeland, J., Ludwig. T.D., Bergman, S. & Acikgoz, Y. (2018). Increasing Sales By Managing The Interlocking Contingencies Between Sales Representatives And Customers Using Behavioral Self-Monitoring. Journal of Organizational Behavior Management, DOI: 10.1080/01608061.2017.1423147

Cucina, J.M., Duncan, M.L., McKay, P., Sady, K., Thompson, I., Tonowski, R., & Walmsley, P.T. (2018, April) Collecting EEO demographic data: Measurement challenges, solutions, and opportunities. Panel discussion presented at the 33rd meeting of the Society for Industrial and Organizational Psychology, Chicago, IL.

Fleenor, J.W. & Taylor, S. (2018). Developing leadership potential through 360-degree feedback and coaching. In L.A. Berger & D.R. Berger (Eds.), The talent management handbook (3rd ed.) (pp. 201-209). New York: McGraw-Hill.

Goomas, D.T. & Ludwig, T.D. (2017). Computerized Immediate Feedback Increases Product Recall Efficiency Due To Interlocking Contingencies In Food Manufacturing. Journal of Organizational Behavior Management, 37 (1), 96-106.

Grøn, R. T., Sørensen, N. H., & Kaiser, R. B. (2017). Versatilitet - Fremtidens ledelse i en VUCA-verden. (Versatility - Leadership of the Future in a VUCA World.) Erhvervspsykologi (Business Psychology), 15(4).

Hense, R., Thompson, I. B., Kaminsky, S. E., Murphy, C., Yost, A. P., & Girouard, M. (2018, April). Shiny Pennies: Influence of AI and Neuroscience Innovations on Selection Consulting. Panel discussion presented at the 33rd annual conference of the Society for Industrial and Organizational Psychology, Chicago, IL.

Hyten, C. & Ludwig, T.D. (2017). Complacency in Process Safety: The problem of maintaining avoidance behavior. Journal of Organizational Behavior Management. 37, 240-260.

Improving Occupational Safety with Big Data Mining and Analytics (under review). Agency: National Institute of Occupational Safety and Health. Co-Principle Investigators: Timothy D. Ludwig & Shawn Bergman. Status: Pending, $60,000, one year, renewable.

Kaiser, R. B., & Chamorro-Premuzic, T. (in press). Integrating personality assessment with 360 feedback in leadership development and coaching. To appear in Allan Church, David Bracken, John Fleenor, & Dale Rose (Eds.), Handbook of Strategic 360 Feedback, Oxford Press.

Ludwig, L.H., & Ludwig, T.D. (2017). Bringing Behavioral Systems Analysis to the Entrepreneur: Case Studies using the Value Core Blueprint. Paper presented at the Association for Behavior Analysis International's Ninth International Conference, Paris, France.

Ludwig, T.D. (2017). Are there Gaps in your Safety Systems. Keynote presentation at Behavioral Safety Now, Houston, TX.

Ludwig, T.D. (2017). Everything I know about Safety I learned from my Kidz. Plenary lecture (Keynote) at the 8th European Conference on Behavior-Based Safety and Behavior Analysis, Rome, Italy.

Ludwig, T.D. (2017). Process Safety in Behavioral Systems: Behaviors Interlock in Complex Metacontingencies. Journal of Organizational Behavior Management. 37, 224-239.

Ludwig, T.D. (2017). Process Safety: Another Opportunity to Translate Behavior Analysis into Evidence-Based Practices of Grave Societal Value (Editorial). Journal of Organizational Behavior Management. 37, 221-223.

Ludwig, T.D. (2017). Special Issue (Ed.). Behavioral Science Approaches to Process Safety: A Response to an Industry's Call. Journal of Organizational Behavior Management. 37

Ludwig, T.D. (2018). Dysfunctional Practices that Kill your Safety Culture. Calloway Publishing, Blowing Rock, NC.

Ludwig, T.D. (2018). Chair & Discussant. Translational Research through Partnerships with Industry and Communities to impact Safety. Symposium presented at the annual convention of the Association for Behavior Analysis International, San Diego, CA.

Ludwig, T.D. (Ed.) (2018). Sources of Behavioral Variance in Process Safety: Analysis and Intervention. Taylor & Francis: London.

Ludwig, T.D., & Harshbarger, D. (2017). Documenting Best Behavior Analytic Practices Related To Injury Reduction In Industrial Safety. Paper presented at the Association for Behavior Analysis International's Ninth International Conference, Paris, France.

Thompson, I. B., Siever J., Michael, J. J. (2017, October). The Power of Bayesian Validation in Personnel Selection. Proceedings of the Southern Management Association 2017 Conference. St. Petersburg, FL.

Thompson, I. B., Song, Q. C., Kropp, A. K., Goebl, A. P., Hall, S., Meade, A. W., Newman, D. A., Wee, S., & Jones, J. A. (2018, April). Machine Learning Techniques for Multiple

Criteria Optimization. Paper and panel presented at the 33nd annual conference of the Society for Industrial and Organizational Psychology, Chicago, IL.

Vergauwe, J., Wille, B., Hofmans, J., Kaiser, R. B., & De Fruyt, F. (2018). The double-edged sword of leader charisma: Understanding the curvilinear relationship between charismatic personality and leader effectiveness. Journal of Personality and Social Psychology, 114, 110-130.

Wirth, O., & Ludwig, T.D. (2018). Establishing a strong Safety Culture through Accredited Behavioral Safety Programs. Paper presented at the annual convention of the Association for Behavior Analysis International, San Diego, CA.

Editor's Notes

Thank you for being part of NCIOP. A group is impossible without its members. Feel free to send me any suggestions or comments regarding the newsletter, meeting, or general group. Hopefully, together, we can take our group to the next level.

Sincerely,

Isaac Thompson, Ph.D.
NCIOP Secretary and Editor
Thompsonisaacb@gmail.com