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COMMENTARY

The brighter side effects: Identification and attainment

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Abstract
Organizations that are becoming more diverse and relying on teams to achieve performance outcomes often employ organizational interventions to deliver these outcomes. Although some negative or null side effects have been demonstrated related to these interventions, we argue that many positive side effects are often not captured or are disregarded and warrant further attention. Using examples from the training literature, we provide evidence for positive side effects of organizational interventions. We also identify lapses in the field's approach to the measurement of the effects of organizational interventions and how this prevents our attempts to improve these interventions to create better and more holistic outcomes for employees and organizations. We suggest opportunities to improve interventions that can be applied in our diverse workplaces.

In their focal article, Watts et al. (2021) detail the often overlooked side effects of organizational interventions, which they define as the "unintended events that are experienced by individuals or groups associated with the implementation of organizational interventions" (p. 4). Omitted from the discussion, however, is the other side of the coin: the positive, long-lasting side effects of organizational interventions, exemplified in the diversity and teams training literature (e.g., Hart et al., 2019; Lyubovnikova et al., 2018). Without exploring positive side effects, this conversation remains incomplete. Balancing the discussion, however, goes much deeper than just the need to have a complete conversation. Uncovering these positive effects requires conversations about the measurement and goals of interventions and how we can as industrial-organizational (I-O) psychologists improve the outcomes. Knowing the positive side effects will tell us not only what we need to eliminate as we design newer and more effective interventions but also how we should *modify* existing interventions to enhance positive side effects and minimize the negatives. Having a better understanding will allow us to improve organizational interventions, increase their applicability and accessibility in the workplace, and increase the ability to address the timely and important issues that organizations face, such as striving toward equitable and inclusive diverse teamwork.

As the U.S. workforce continuously becomes more diverse and teamwork becomes more and more prevalent in organizations (Buckley & Bachman, 2017), effective diversity and team training and development has become a bigger priority for organizations within the United States and is essential to employee well-being, workplace climate, and performance outcomes. Throughout the past few decades, the training literature has proliferated, providing examples of the best and worst approaches to team training and their subsequent side effects (e.g., Alhejji et al., 2016; Bezrukova et al., 2016; Salas et al., 2008). More recently, a literature has emerged demonstrating the positive side effects of integrative training interventions that address multiple team issues, including diversity and emotional management, and target affective, behavioral, and cognitive outcomes. Thus, we

focus on integrative training to illustrate the positive side effects of organizational interventions. We claim that side effects first need to be effectively measured and then offer recommendations from the literature on how to design training interventions that maximize these side effects.

Positive side effects of interventions: Examples from the training literature

Integrative team and diversity training interventions are an effective place to start with this conversation because they have several positive side effects in addition to main effects. For example, team training that contains an emotional management component teaches a skill that can be used not just with one's organizational teams. The effects of these interventions may apply in several interactions and relationships beyond the initial team setting in which the outcome was intended to take place. Being able to properly manage our emotions can help to become a more persuasive leader, understand feedback in a more constructive manner, and manage conflict between parties with opposing goals (van Kleef, 2017). Accordingly, research (e.g., Hirschmann et al., 2020) shows how workplace training on communication in teams taught skills that employees carried to their personal lives, with participants reporting changes in their personal awareness and way they approached challenges with not only team members but also their family and friends.

Another tangible example comes from the positive side effects of diversity training. For example, a diversity training program that is designed to improve attitudes toward racial minority and female employees measured the success of their training by seeing whether there was an increase in the likelihood that male and White employees would mentor racial minorities and female employees (Chang et al., 2019). Although there was no change in this likelihood of mentorship, what they did observe was an unintended yet positive side effect. Women and racial minorities that were subjects of this training were, as a result, more likely to *seek out* mentors from majority groups in the organization. Although this effect was documented, there is a strong likelihood that there was a deeper effect on the minority employees' confidence as a result of this training that influenced more than just their likelihood to seek out mentors, including having more far-reaching effects on their conduct inside and outside the workplace. Therefore, these well-intended and well-designed training interventions can have side effects that show the organization values collaboration and inclusion well beyond what the training content is intended to be covering.

How can we capture these side effects?

To have a better understanding of the side effects of interventions to inform training development and adaption, it is important to capture these effects through different measurement techniques and over time. Most research within organizations, however, is still conducted with limited resources that are designed to only capture effects that are believed to influence the bottom line (Hisrchmann, 2020. Most research on training is limited to reactions and immediate knowledge changes rather than long-term outcomes and transfer of learning from interventions (Kirkpatrick, 1994), limiting the ability to notice positive effects and the accuracy of results (Tan et al., 2003). For example, although Chang et al. (2019) captured some positive side effects of their diversity training through their measures, it is likely that there were more side effects related to confidence that were not captured. Additionally, some organizations often send out climate surveys without properly linking them to the interventions that were given throughout the organization's history.

Thus, it is important to consider how the effects of interventions are measured and the timeline along which they are measured to have a better grasp on potential side effects. For example, the study by Hirschmann et al. (2020) was able to reveal how the effects of their training extended beyond those intended and influenced employees' family dynamics. Because of their use of delayed qualitative measurements, participants had the ability to reflect on not only immediate but also long-term effects of the training, not limited to the workplace. Therefore, the first step is

using more open-ended and *delayed* measurement tools. This will help us not only understand direct effects of the training better but also expand our knowledge of what types of training design leads to the most positive side effects. Effective measurement has a better opportunity to inform improvement of intervention and training design as well and maximize positive side effects.

How can we promote positive side effects in practice?

One of the most compelling concepts about positive side effects is that increasing them is closely intertwined with increasing main effects. *Training transfer* is the extent to which learning in training influences later workplace behavior and performance. Currently, most training programs do not have any immediate or long-term transfer to the workplace (Grossman & Salas, 2018. In such cases, it is unlikely that these trainings have effects outside of those intended as well. However, as I-O psychologists continue to identify best practices to promote training transfer and implement them in training design, we are more likely to start seeing side effects of these programs as well. There are several factors that influence training transfer. Burke and Hutchins (2007) identify them, including but not limited to personality characteristics, view on training, career/job variables, locus of control, practice and feedback, and intervention design and delivery. Training interventions that focus on building skills instead of conveying information have higher levels of transfer. Specifically, research demonstrates that emotional management training is an important moderator of training's ability to produce long-term transfer (e.g., Hart et al., 2019; Lyubovnikova et al., 2018).

Based on the literature on training transfer, there are several recommendations to be made as to what kinds of training may exhibit these positive side effects. First, we posit that emotional management training will help bring about these positive side effects. Research demonstrates that such training will help participants regulate emotions such as defensiveness, which, in effect, will aid participants in advancing their learning (Tan et al., 2003). In the long term, this will lead to positive side effects, which include positive changes at the individual, interpersonal, and organizational levels. Emotional management training will optimize individual and team performance in the long run and has been shown to improve effectiveness of team training as well (e.g., Lyubovnikova et al., 2018).

By incorporating emotional management training components that encourage positive side effects, our training interventions can take a more human-centered approach for those who take part in them aside from the direct effects and improvements to organizational performance, which is the essential goal of them. It allows us to see employees more holistically, as individuals who interact at work but beyond as part of a larger system. Designing interventions with an understanding of their positive side effects and a drive to maximize these will help us consider employees' as complex individuals with various aspects of their lives in and beyond the workplace. In this sense, organizations can have a more positive influence on the individual, which will likely translate to better organizational performance.

Conclusion

Although there is the potential for negative side effects of organizational interventions, as shown in Watts et al.'s (2021) focal article, with effective interventions, these negative effects can be minimized and positive effects highlighted. Missing from this discussion is the fact that I-O psychologists rarely ever assess a complete picture of the transfer and results of an intervention, and even more rarely do we investigate why or why not the effect occurred to inform future intervention design. We argue that, especially in the context of organizational training, these positive side effects can be elicited by implementing integrated training with a holistic, human-centered approach. We also argue that we should adapt our measurement methods to be able to effectively capture all side effects. In doing so, the I-O field can move toward creating more effective interventions that can help both the organization and the individual thrive.

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