Industrial and Organizational Psychology
PERSPECTIVES ON SCIENCE AND PRACTICE

Putting the Cart Before the Horse: Subgroup Differences in Childhood and Employment Discrimination

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Unfair employment discrimination is a problem that industrial–organizational (I–O) psychologists often inherit, but is it a question that we should be expected to answer alone? As Lindsey, King, Dunleavy, McCausland, and Jones (2013) note, several processes are involved in unfair employment discrimination, including employee attraction, selection, inclusion, and retention. One of the most difficult aspects for I–O psychologists to address is reducing unintentional employment discrimination arising from subgroup differences in selection tests, a process known as disparate impact. For decades, scientists and practitioners have been working feverously to eliminate disparate impact in their hiring practices and have seen modest success (Cascio, Jacobs, & Silva, 2010). Lindsey et al. provide a fantastic overview on the current best practices of organizations to achieve this goal, including the

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addition of measures with small subgroup differences and alternative weighting strategies. Despite these methodological and statistical advancements in the selection process, large subgroup differences still occur in organizational selection procedures, and the Equal Employment Opportunity Commission has processed about 25,000 adverse impact cases since 1997 (Murphy & Jacobs, 2012).

Conspicuously absent from Lindsey et al. article is any mention of subgroup differences before the hiring process, such as those often observed during childhood and adolescence. Articles within the field of I–O psychology rarely venture far before the employment process; however, an analysis of these a priori factors could provide substantial information on methods to reduce these subgroup differences and disparate impact. If subgroup differences could be eliminated before the hiring process, then most suggestions from Lindsey and colleagues' article would be largely rendered moot, as they would no longer be needed. To word otherwise, Lindsey et al. best practices are all reactive and can only reduce the impact of disparate impact, but targeting subgroup differences in childhood is a preventative measure that can entirely eradicate disparate impact. Therefore, this piece presents known information on subgroup differences during childhood and adolescence, their relationship with subgroup differences in a selection context, and suggestions specifically for I–O psychologists on future research and practice.

What Do We Know?

In a very important chapter that is consistent with the point of this article, Sackett and Shen (2010) present a broad overview of the subgroup differences across age ranges and years, which date to pre-1970 and even include pre-elementary education children. Two primary findings can be taken from their article. The first is summarized in a single quote from their conclusion:

> 'Is there something specific about the employment context that causes or contributes to subgroup differences? The answer is, No: Differences in the employment context are very similar to differences found in young adult and adult samples in other contexts.' (Sackett & Shen, 2010, p. 338)

This quote draws attention to the importance of understanding subgroup differences prior to the employment context. Subgroup differences arise during childhood and adolescence, and these differences do not appear to be systematically different once an individual reaches the selection process. In fact, subgroup differences in elementary school testing were comparable to those found in an employment context. Given this, it appears appropriate to eliminate subgroup differences in childhood to reduce future disparate impact, but how?

The second primary finding from Sackett and Shen (2010) is that subgroup differences are narrowing over time, albeit only slightly. Although the authors emphasize that the subgroup gap is closing, they also stress that their findings are only descriptive in nature, and no causal claims can be made; however, many factors can be suggested to cause this effect.

For 60 years, substantial efforts have been made to ensure equal education in America. Starting with the *Brown v. Board of Education* in 1954 and the Civil Rights Act of 1964, minority group members became protected under federal law to equal education. Although true change was gradual, these rulings denote moments when education significantly improved for minority members, and resultant studies demonstrate their positive effects on minority member achievement in subsequent decades (Dreger, 1985). In addition, recent years have also seen improvements to the socioeconomic status (SES) of many minority group members. The improvement of living conditions allowed minority group members to focus on education and reduces stress-inducing conditions (Bradley

& Corwyn, 2002), which then spur further advancements in SES. Finally, research on child development has grown exponentially in recent decades, allowing scientists and practitioners to increasingly understand the dynamics of childhood growth. Research has shown that certain factors cause individuals to experience differential developmental trajectories (Bradley & Corwyn, 2002; Hoff, 2013), and these factors may also cause intervention programs to have differential effects on individuals (Mendez, 2010). Among these factors are race and SES. Together, these three influences impact the development of children, which reflects the narrowing of subgroup differences seen in recent decades. This, in part, also has an effect on the reduction of disparate impact discrimination and aids in solving the eventual dilemma for I–O psychologists. Therefore, although these factors seem distal to the everyday-workings of I–O psychologists, they certainly have a large effect on our work, and we should make efforts to understand and further narrow the subgroup differences in childhood.

What Don't We Know?

This commentary has thus argued that a direct focus should be given to subgroup differences before the employment process, but another question should be asked: What should I–O psychologists do about it? Certainly, those who research employment discrimination should *not* invade elementary schools and administer selection batteries, nor should they become historians and solely analyze the impact of court rulings and social movements. Instead, these researchers should join with those who already study childhood and adolescent development, such as developmental psychologists. Many avenues for future research and positive outcomes could come from this collaboration, as noted below.

More studies can be performed that combine I–O psychology with the developmental-focused social sciences. For instance, no direct link has been made between education- and social-related public policy changes and eventual reductions to disparate impact. A study investigating this link seems of paramount importance, as it would give justification to the claims made in the current piece and provide direct support for future investigations. Alternatively, simply analyzing the general relationship of educational development trajectories and disparate impact would be extremely beneficial. As mentioned, subgroup differences in childhood appear analogous to subgroup differences in employment context. Researchers have demonstrated that race and SES predict the development trajectories of verbal ability (Hoff, 2013), literary skills (Lonigan, Farver, Nakamoto, & Eppe, 2013), achievement values (Taylor & Graham, 2007), and general cognitive ability (Campbell, Pungello, Miller-Johnson, Burchinal, & Ramey, 2001), among others; however, differing rates in the development of these abilities across race and SES has not been directly shown to effect disparate impact. If these associations could be shown, then future studies could explore variations in these links, and scholars could begin to discover methods to reduce these subgroup differences that impact disparate impact.

Furthermore, based on the results of current and potential future studies, I–O psychologists can further aid in public-policy decision making for education- and social-focused legislation. Every day, legislation is being created that impacts education, and scholars in other disciplines of the social sciences and psychology largely influence the bulk of these decisions. Although they are certainly qualified, these decisions should involve the collaboration of individuals who analyze all aspects and outcomes of the legislation. If a case could be made that certain education- and social-focused legislation would, in-turn, reduce disparate impact discrimination, then strong support could be given for the proposal. Therefore, it seems logical for I–O psychologists to become involved with the link between education and its eventual outcomes with which we are familiar, as

the results could advance multiple fields and public policy.

Finally, I–O psychologists could partner with ongoing interventions that target certain underprivileged subgroups. Many researchers may stray from attempting to reduce subgroup differences in childhood because of the necessary time required to examine intervention outcomes; however, many interventions have already undergone decades of fine tuning and would not need to be built ''from the ground up.'' In addition, other researchers may be reluctant because they believe limited resources are available, but these interventions are often funded by hefty grants that can provide needed research dollars. For example, the National Head Start Association is a highly successful program that aids underprivileged children to reach their full potential. In 2012, President Barack Obama proposed a FY 2013 federal budget proposal that included $8 billion to fund Head Start, largely based on its demonstrated success since 1965 (Vinci, 2012). Although many aspects of this program have been analyzed, its relation to disparate impact is unknown. Given its expansive development and substantial funding, it seems like an ideal avenue for I–O psychologists to begin understanding methods to reduce childhood subgroup differences and its influence on disparate impact.

These ideas for future research and collaboration on subgroup differences in childhood and eventual disparate impact are only the ''tip of the iceberg.'' To date, little research has been performed on the topic, and I–O psychologists are rarely included on pertinent public policy decisions. Nevertheless, there is no reason why we cannot become involved in research and practice to reduce subgroup differences in childhood to later reduce disparate impact.

Conclusion

To summarize and conclude, this commentary argues that a special focus should be given to subgroup differences in childhood, as these effects development into disparate impact and adverse impact cases in adulthood. These childhood subgroup differences appear to be analogous to subgroup differences seen in employment contexts and also seem to be decreasing in recent decades. Many factors likely cause this decrease, including improvements to minority education and SES. Although these factors seem distal to the research of an I–O psychologist, we should begin to take greater interest in them. Potential reductions to disparate impact could be made if I–O psychologists would collaborate with other fields for research as well as public policy changes. Through these efforts, we could greatly better organizations and society.

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