AMERICAN PSYCHOLOGICAL ASSOCIATION

Journal of Counseling Psychology

ISSN: 0022-0167

2026, Vol. 73, No. 1, 1–16
https://doi.org/10.1037/cou0000849

Predictors of Decent Work Within Psychology of Working Theory: A Meta-Analysis

Yeonwoo Choi[1], Junsang Park[1], Ryan D. Duffy[1], Taewon Kim[1], Matthew C. Steranka[1], Haram J. Kim[2], and Brittany Bridges[1]

[1] Department of Psychology, University of Florida
[2] Department of Psychological Sciences, Texas Tech University

Drawing from the psychology of working theory (PWT), in the present study, meta-analytic techniques were used to examine predictors of decent work attainment. 38 published studies were identified which (a) measured decent work using PWT's conceptualization, (b) gathered data with working adults, and (c) included one or more PWT proposed predictor variables (economic constraints, marginalization experiences, work volition, career adaptability). Findings from the meta-analytic path analysis suggested all four constructs were significant predictors of decent work, with work volition being the strongest predictor and serving as a robust mediator connecting economic constraints and marginalization experiences to decent work. An alternative, more parsimonious model only including work volition as a mediator (but not career adaptability) was also tested, yielding relatively similar fit and variance accounted for. Finally, several small but meaningful differences existed when examining overall model fit and path estimates according to sample demographics and types of assessment tools to measure the economic constraints, marginalization, and career adaptability constructs. Recommendations are provided for future research and practice for those interested in understanding what factors may promote decent work attainment.

Public Significance Statement

The meta-analysis suggests that working adults' challenges in accessing decent work are predicted by the measurements of lifetime economic constraints and marginalization. Moreover, work volition appears to be a stronger mediator than career adaptability, with variations across different countries. These findings can guide counseling psychology practitioners and researchers in exploring factors that best promote or limit decent work attainment.

Keywords: decent work, psychology of working, meta-analysis

Psychology of working theory (PWT; Duffy et al., 2016) is an emerging vocational theory aimed at documenting the work experiences of individuals who face social and economic constraints. Central to the theory is the concept of decent work, which was introduced by the International Labour Organization (1999, 2017) as an aspiration goal in work that includes (a) providing equal access to numerous work opportunities, (b) ensuring human rights in workplace, (c) protecting access to health care and income from work and economic-related risks, and (d) encouraging social consultation and negotiation in the workplace (International Labour Organization, 2017). Aligning with the International Labor Organization's proposed goal of decent work, the psychology of working framework (Blustein et al., 2016) and PWT (Duffy et al., 2016) expanded scholarship on decent work by proposing theoretically informed predictors and outcomes. In PWT specifically, decent work is defined as employment that provides safe working conditions, adequate compensation,

This article was published Online First December 15, 2025.
Hui Xu served as action editor.
Yeonwoo Choi https://orcid.org/0009-0006-3054-9098
Ryan D. Duffy https://orcid.org/0000-0001-7418-3274

Requests for data and study materials can be made by emailing Yeonwoo Choi. The data that support the findings of this study are openly available on the Open Science Framework at https://doi.org/10.17605/OSF.IO/SAQ8E. The analysis code of this study is available on request from the author, Junsang Park.

Yeonwoo Choi played a lead role in conceptualization, data curation, formal analysis, methodology, writing–original draft, and writing–review and editing. Junsang Park played a lead role in methodology and software, a supporting role in writing–original draft, and an equal role in conceptualization, data curation, and formal analysis. Ryan D. Duffy played a lead role in conceptualization, supervision, validation, and writing–review and editing. Taewon Kim played a supporting role in supervision and an equal role in writing–review and editing. Matthew C. Steranka played a supporting role in data curation, formal analysis, and writing–original draft. Haram J. Kim played a supporting role in data curation and an equal role in writing–review and editing. Brittany Bridges played a supporting role in data curation and writing–original draft.

Correspondence concerning this article should be addressed to Yeonwoo Choi, Department of Psychology, University of Florida, 945 Center Drive P.O. Box 112250, Gainesville, FL 32611, United States. Email: yeonwoo.choi@ufl.edu

access to health care, free time for rest, and a congruence with personal values (Blustein et al., 2016; Duffy et al., 2016)

PWT positions contextual barriers—namely, lifetime experiences of economic constraints and marginalization—as the primary drivers of decent work attainment. Moreover, for those who do attain decent work, this is believed to help fulfill individuals' basic needs and, in turn, promote overall well-being. Since its inception, hundreds of empirical studies have tested the propositions of PWT, often focusing on samples from marginalized backgrounds across global contexts. In light of this growing body of research, a comprehensive synthesis is often needed to further advance scholarship. First, it is essential to begin pooling early studies and conducting a meta-analysis to examine which propositions and ideas are empirically valid. Second, the inconsistent use of measures assessing PWT's main constructs warrants attention to determine if different measures influence the strengths or direction of model paths. Third, given PWT's emphasis on people from marginalized backgrounds and its widespread application in international research, it is critical to examine moderators, such as identity-based characteristics and global contexts, to evaluate the theory's generalizability (Sanbonmatsu et al., 2021). Fourth, although most studies have supported the propositions of PWT, some have found nonsignificant relations with the career adaptability construct, which prompts further examination of its predictive role (Duffy, Choi, et al., 2024).

In this regard, we employed meta-analytic methods to statistically assess the findings from research published between 2017 and 2024 using PWT as a guiding framework. We specifically focused on predictors of decent work because most empirical studies conducted to date have focused on the predictor portion of the theoretical model. We also examined whether relations between the predictors and decent work varied by measurements for economic constraints, marginalization, and career adaptability; participants' marginalized identities; and the study's country of origin. Furthermore, we tested PWT propositions with and without career adaptability to evaluate their conceptual contribution. Last, we conducted a multigroup meta-structural equation modeling (meta-SEM; U.S.- vs. non-U.S.-based studies) to examine if model paths differed by country context.

Overview of PWT and Predictors of Decent Work

PWT (Duffy et al., 2016) provides a comprehensive, empirical, testable theoretical model that highlights predictors and outcomes of attaining decent work. PWT itself can be separated into a front half, which focuses on predictors of attaining decent work, and a back half, which focuses on outcomes associated with achieving decent work. The front half of PWT (the predictor portion) places lifetime experiences of economic constraints and marginalization as the primary structural factors influencing decent work attainment. Economic constraints refer to having limited economic resources across the lifespan (e.g., "I have considered myself poor or very close to poor most of my life"; Duffy et al., 2019, p. 205), whereas marginalization experiences refer to being in a less powerful position within society due to having a marginalized identity (Duffy et al., 2019). Specifically, PWT posits that economic constraints and marginalization experiences negatively predict the attainment of decent work.

PWT also introduces work volition and career adaptability as psychological factors that mediate the relations between the two structural factors and decent work. Work volition is defined as the perception of choice in making career decisions, and career adaptability is defined as the readiness and resources for navigating career development (Duffy et al., 2012, 2016; Savickas, 2002). Individuals with greater economic constraints and marginalization experiences are believed to be less likely to have access to decent work because of less freedom in career decisions (work volition) and less ability to adapt to the world of work (career adaptability). The back half of PWT (the outcome portion) proposes that decent work leads to work fulfillment and greater well-being. It explains that attaining decent work leads to fulfilling work and greater well-being because it satisfies the basic needs of survival, social contribution, and self-determination (Autin et al., 2019).

To the best of our knowledge, only one review has been completed to date on decent work in the context of PWT (Duffy, Choi, et al., 2024). The authors reviewed nearly 100 studies that "(a) were empirical, quantitative studies, (b) used PWT as a guiding framework, and (c) contained at least one of the central variables within PWT" (Duffy, Choi, et al., 2024, p. 50). These studies have collectively supported most of the key PWT propositions in the predictor portion. For example, across most studies, marginalization experiences and economic constraints directly negatively predicted decent work, and work volition directly positively predicted decent work and often functioned as a mediator linking the two structural factors to decent work.

However, the authors identified one notable inconsistent finding: Across many studies, career adaptability was often unrelated to the structural factors and, in turn, failed to serve as a mediator to decent work. Duffy, Choi, et al., 2024 suggested that a potential reason for these nonsignificant effects may be related to conceptual and measurement concerns, specifically a mismatch between how career adaptability is defined in PWT and how it is commonly assessed. That is, PWT conceptualized career adaptability as work-based adaptive experiences of working adults. However, the majority of studies have used the Career Adapt-Abilities Scale (CAAS; Savickas & Porfeli, 2012) that reflects more personality type constructs (e.g., career concern, career curiosity), which diverges from PWT's intended operationalization. For example, Xu (2020) found that the CAAS total score demonstrated a strong association with general self-efficacy, suggesting that the context of CAAS may reflect personality-driven traits, such as an individual's belief in their coping ability across circumstances, more than career adaptation skills. Another frequently used measurement for career adaptability is the career adaptability subscale of the Career Futures Inventory (CFI; Rottinghaus et al., 2005). The career adaptability subscale of the CFI refers to how individuals view their capacity to adjust and recover when unexpected events disrupt their career trajectory. Such conceptual misalignments across measures may have contributed to the inconsistent findings and obscured the theoretical intent. Therefore, to evaluate its conceptual contribution, we conducted a comparative meta-analytic path analysis, comparing a full model including career adaptability with an alternative model excluding it.

Potential Moderators

In comprehensively synthesizing PWT studies conducted so far, several potential moderators were also considered. First, Duffy, Choi, et al., 2024 highlighted measurement inconsistencies in how economic constraints, marginalization, and career adaptability have been assessed. Compared to other constructs in PWT, these three

variables have been measured using more diverse instruments across studies. To assess marginalization, studies have utilized two types of measurement: (a) instruments measuring lifetime experiences of marginalization that fit with how marginalization is explained in PWT (e.g., Ezema & Autin, 2024; H. J. Kim et al., 2022) and (b) instruments measuring present experiences related to specific identities or work environments (e.g., ethnic or heterosexist discrimination; Douglass et al., 2017; Duffy et al., 2018; Tebbe et al., 2019; T. R. Williams et al., 2023). Measurements of economic constraints follow a similar trend, with one group of studies using tools to measure economic constraints experienced over the course of the lifetime as defined in PWT, and another group of studies using various tools to measure economic constraints in more time-limited or domain-specific fashions. Many of the studies falling under the second group have used indicators, such as the MacArthur Subjective Social Status Scale (e.g., Kozan et al., 2019; Wang et al., 2019), salary (e.g., Atitsogbe et al., 2021), education (e.g., N. R. Kim et al., 2020), and family wealth (e.g., N. R. Kim et al., 2020). To measure career adaptability, studies have mostly utilized CAAS (Savickas & Porfeli, 2012) or translated versions (Einarsdóttir et al., 2015; Hou et al., 2012; Tak, 2012; Vilhjálmsdóttir et al., 2012), and secondarily items from the Career Future Inventory (Rottinghaus et al., 2005). For all three variables, the strengths of relations within the PWT model may still differ depending on how the constructs are measured, which warrants a moderation analysis.

Second, given the emphasis of PWT on people who lack power and privilege in the world of work, the vast majority of PWT studies have gathered samples with specific marginalized identities, including those based on race, gender, sexual orientation, and disability status. Accordingly, model paths may differ based on the diverse identities that participants hold. The intersection of various sample characteristics, inconsistent construct measurements, and associated results across these studies may limit the theory's replication and generalizability (Sanbonmatsu et al., 2021). Among the various marginalized identities, we identified women, people of color, and sexual minorities as distinct groups of interest due to sufficient representation in the literature that allows for subgroup comparison.

Third, the country of origin of participants may be another important moderator to consider. Within counseling and vocational psychology, there is a rich history of examining how specific theories or ideas translate to cultures outside of the United States (F. M. Cheung, 2000; Singh et al., 2020). Scholars have emphasized the cruciality of examining psychological theories cross-culturally for developing a more comprehensive, generalizable, and culturally sensitive psychological theory and assessment (Hartung, 2002; Leong & Hartung, 2000). Traditional psychological theories have received criticism for their Western-centered approach, which can lead to potential cultural biases and inaccuracy in research and clinical practices. In response, various approaches were proposed to enhance cultural sensitivity in psychological theories. For example, scholars introduced the cultural lens approach, which involves steps of evaluating the cultural validity of psychological theories by analyzing how core ideas in the existing theory may function differently depending on different cultural populations (Hardin et al., 2014). Numerous PWT studies have been conducted with non-U.S. samples, in which PWT-related measures are translated to various languages and adjusted to be more culturally appropriate (e.g., Nam & Kim, 2019; Wang et al., 2019). Although the present study does not directly examine the cultural validity of the PWT, it explores whether the relationship among model variables differs based on participants' different national backgrounds (U.S. vs. non-U.S.). Thus, the assessment of different national backgrounds may provide insight concerning the predictive ability of core components within the PWT model.

The Present Study

Given the myriad number of studies conducted so far on decent work within the context of PWT, it is important to conduct a synthesis of this research using a meta-analytic approach. To our knowledge, this is the first empirical meta-analysis study that assesses existing studies related to PWT. Although Su and Chan (2023) assessed the meta-analysis of the relationship between decent work and well-being, the present study is the first meta-analysis that assesses the predictor portion of the PWT framework. By systematically examining and integrating prior literature, it may provide meaningful insights into what theoretical gaps need further refinement to advance PWT and the potentially unique way certain variables predict decent work. To do so, we first conducted a bivariate meta-analysis examining the relations between PWT's four primary predictor variables (i.e., economic constraints, marginalization experiences, work volition, and career adaptability) and decent work. Second, we performed moderation analyses to examine if the significance and magnitude of the relations among predictor variables and decent work may be influenced by a series of moderators. Specifically, we assessed path and model differences according to (a) the type of measurement for economic constraints/marginalization experiences/career adaptability, (b) the specific marginalized identity of study samples (i.e., gender, race, sexuality), and (c) the sample country of origin (i.e., U.S.-based vs. non-U.S.-based). Third, we used the pooled correlation matrix to conduct a meta-analytic path analysis, examining the collective five construct predictor portion of PWT, and also an alternative model that excluded career adaptability. Finally, given sufficient sample sizes within subgroups, we conducted a meta-analytic SEM to assess the degree to which the significance and magnitude of the overall model paths could differ by country of origin (U.S. vs. non-U.S.).

Method

Literature Search and Inclusion Criteria

The research team included two faculty members and five doctoral students in counseling psychology. We conducted a literature search across four different databases: Google Scholar, Web of Science, EBSCO, and APA PsycInfo. We searched the peer-reviewed empirical articles that were first published online in English from 2017 to 2024. We used the keywords "decent work" or "decent work scale." The literature search resulted in Google Scholar ($n = 383$), Web of Science ($n = 182$), EBSCO ($n = 149$), and APA PsycInfo (APA PsycNet; $n = 99$). In total, we found 813 peer-reviewed articles through the initial literature search. Figure 1 presents the search and screening process using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses chart. The following inclusion criteria were used to select initial studies: (a) studies must have used the Decent Work Scale (DWS; Duffy et al., 2017), including translated versions of the DWS; (b) studies should be empirical, including quantitative and mixed-method studies; (c) participants should be working adults; and (d) studies should be written in English.

Transparency and Openness

In the next section, we report how we determined our sample size, all data exclusions, all manipulations, and all measures in the study, and we follow Journal Article Reporting Standards (Kazak, 2018). All data, analysis code, and research materials are available by contacting the corresponding author or accessing at https://doi.org/10.17605/OSF.IO/SAQ8E. Data were analyzed using the *meta* (Balduzzi et al., 2019), *metaSEM* (M. W. L. Cheung, 2015), and *Lavaan* (Rosseel, 2012) packages in R Version 4.3.2 (R Core Team, 2023). This study's design and its analysis were not preregistered.

Screening Process

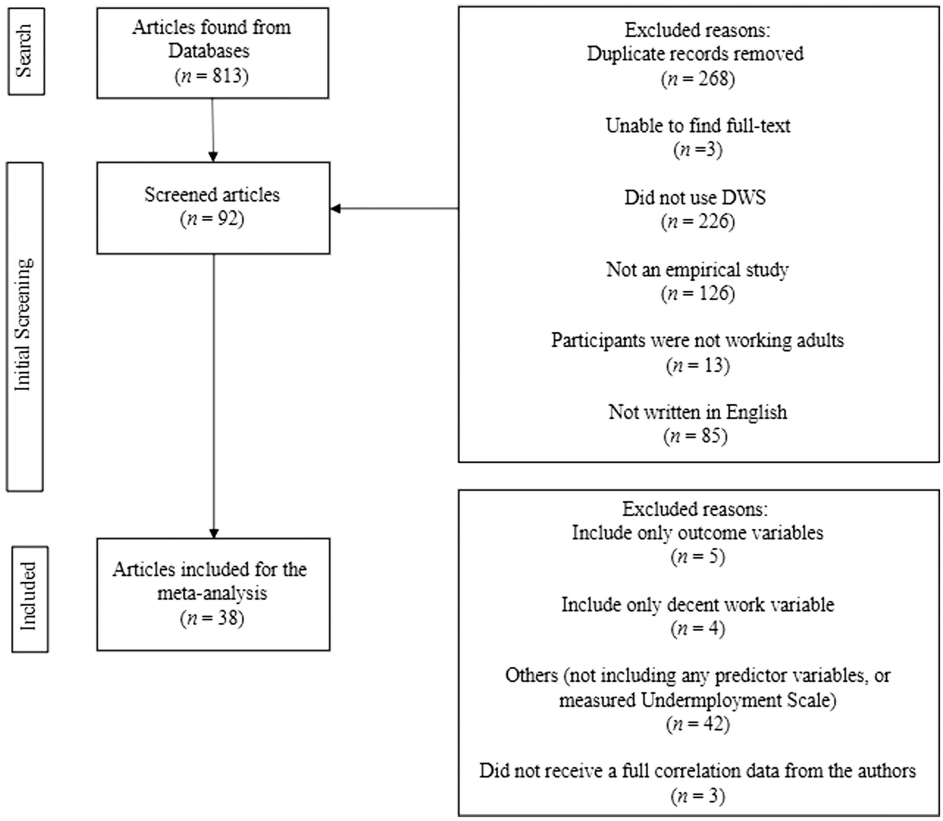
First, five doctoral student authors, including the first and four coauthors, independently screened out studies by reviewing the titles, abstracts, and full text based on the inclusion criteria. Then, the five authors, along with the two faculty authors, discussed any discrepancies among the five authors' independent screenings until reaching a consensus. Through this review, we excluded studies due to (a) duplicate articles ($n = 268$), (b) did not include the DWS ($n = 226$), (c) did not conduct an empirical study ($n = 126$), (d) did not include working adult participants ($n = 13$), (e) not being written in English ($n = 85$), and (f) being unable to find the full text ($n = 3$). Then, the first and second authors reviewed the 92 remaining articles in full text again to finalize the studies that would be used for meta-analysis. Additional articles were excluded due to (a) including only the decent work variable ($n = 4$), (b) only including outcome variables from the PWT, such as need satisfaction and well-being ($n = 5$), (c) not including any of the four main PWT predictor variables (economic constraints, marginalization, work volition, and career adaptability; $n = 42$), or (d) not receiving a full correlation from the authors ($n = 3$). Also, among the manuscripts for which we did not receive a response from the corresponding authors, one study (Choi et al., 2022) was still included because it reported beta coefficients. These coefficients were incorporated using the method described in the Summary Measures and Synthesis of Results section. A final group of 38 studies was eligible for meta-analysis (see Figure 1).

Data Coding

The second author extracted all the data, which were then independently verified by two researchers, the first author and the fifth author. Discrepancies between the extracted data and the original article were discussed and resolved through further review by the first and second authors (e.g., clarifying reverse-coded variables, correcting extraction errors, and verifying appropriate categorization of scales). The extracted data included descriptive study information such as publication year, study design, sample

Figure 1

Preferred Reporting Items for Systematic Reviews and Meta-Analyses Flowchart



Note. DWS = Decent Work Scale.

size, age range, mean and standard deviation, country of publication, gender, and job. Additionally, information on the instruments of marginalization, economic constraints, and career adaptability was coded. The results of statistical analyses examining the relations between two variables were included. For longitudinal studies, we adopted M. W. L. Cheung's (2014) recommendation to extract relations among scores derived from measures at baseline. For economic constraints, we categorized the measurements based on their frequency of use in the 38 studies, and in our eventual analysis only compared measurement differences when at least three studies had used a specific measure. For marginalization experiences, we created two groups based on studies that assessed marginalization across the lifespan versus those that assessed marginalization in a more domain-specific manner (e.g., discrimination experiences in the workplace, daily experiences of discrimination). For career adaptability, we categorized studies into two groups based on using the adaptability subscale of the CFI (Rottinghaus et al., 2005) or measuring career adaptability with the CAAS, either the English version or the translated version (CAAS; Savickas & Porfeli, 2012).

Risk of Bias

The risk of bias in each study was evaluated using a tool adapted from the Strengthening the Reporting of Observational Studies in Epidemiology (von Elm et al., 2014) checklist. The evaluation included eight criteria: (a) detailing the study's design elements; (b) specifying eligibility criteria; (c) clearly defining outcomes, predictors, and potential confounders; (d) describing data sources and assessment methods; (e) clarifying the rationale behind the study's size; (f) outlining the treatment of quantitative variables in the analysis; (g) detailing all statistical methods, including those for adjusting for confounding factors; and (h) addressing the approach to handling missing data. Each study was scored based on how many of these eight criteria it met, and the total was converted into a percentage score (e.g., a study meeting 6 out of 8 criteria would receive a 75%). Studies were categorized as having a low risk of bias if they met more than 50% of the criteria (>50%) and high risk of bias if they met 50% or fewer (≤50%). Interrater reliability was assessed using Cohen's kappa (κ; Cohen, 1968), and any discrepancies were resolved through discussion until 100% consensus was achieved.

Summary Measures and Synthesis of Results

In the studies we reviewed, we mainly used two types of summary measures: the correlation coefficient (r) and the standardized regression coefficient (β). We began by converting all results to a correlation effect size (r) using a method suggested by Peterson and Brown (2005). This method transforms standardized regression coefficients (β) into correlation effect sizes (r). Although mixing beta coefficients with correlation measures can be challenging due to the different variables included in the analyses, it is possible to convert a beta coefficient to r if it is between −0.50 and 0.50 (Bowman, 2012; Peterson & Brown, 2005). Among the 306 coefficients collected in this study, only three were standardized beta coefficients: one for the association between marginalization and work volition, one between marginalization and decent work, and one between work volition and decent work. All beta coefficients fell within an acceptable range for conversion to correlations, supporting their inclusion in the analysis. To further validate this approach, we conducted a sensitivity analysis by excluding studies in which regression coefficients were converted to correlations. We compared the pooled coefficients with and without the inclusion of these converted effect sizes and found that they were not significantly different when comparing their 95% confidence intervals. The results remained largely consistent, suggesting that the pooled estimates were not unduly influenced by the inclusion of converted effect sizes (details of the sensitivity analysis are available upon request from the corresponding author).

Next, we adjusted the effect sizes to account for measurement error using a method recommended by Charles (2005), which involves using the internal consistency values (e.g., Cronbach's α) reported for each measure. If a measure's internal consistency was not provided, we used a default reliability estimate of .70. This step helps ensure that the converted effect sizes more accurately reflect the true associations between constructs, rather than attenuated correlations due to measurement error. To prepare the data for meta-analytic aggregation, we transformed the reliability-adjusted correlation coefficients into Fisher's z scores. This transformation normalizes the sampling distribution of correlation coefficients, especially when values approach the bounds of −1 or +1, and stabilizes their sampling variance (Borenstein et al., 2009). During aggregation, each z-transformed effect size was weighted by the inverse of its sampling variance (i.e., $1/[n - 3]$), ensuring that estimates from larger samples contributed more to the pooled results. This approach minimizes the risk of overhomogenizing the data by appropriately accounting for the precision of each estimate. After aggregation, the pooled z-scores were converted back into correlation coefficients for interpretability. To interpret the strength of these correlation coefficients, we used Cohen's (1988) guidelines: coefficients less than 0.1 are considered very weak, those between 0.1 and 0.3 are weak, those from 0.3 to 0.5 are moderate, and those above 0.5 are viewed as strong.

Statistical Analysis

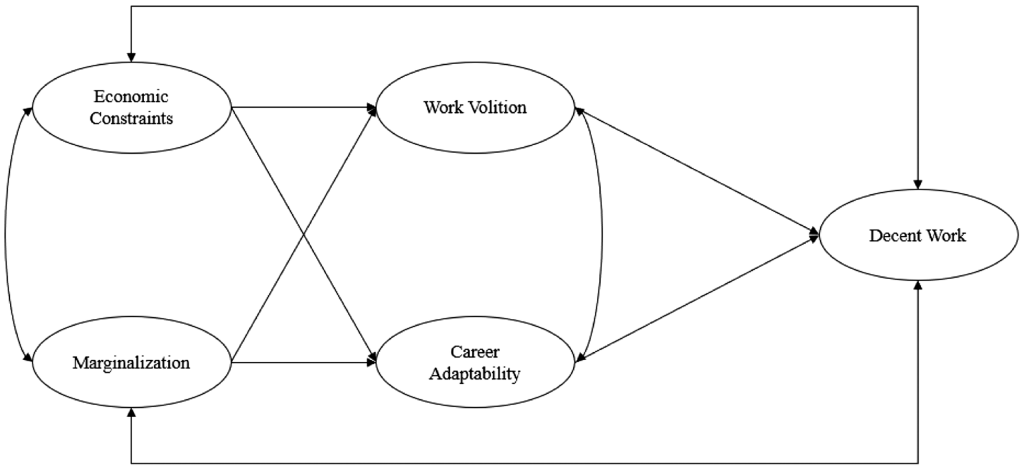
We conducted meta-analyses and meta-SEM using the *meta* (Balduzzi et al., 2019) and *metaSEM* (M. W. L. Cheung, 2015) packages in R Version 4.3.2 (R Core Team, 2023). Below, we outline our approach to the meta-analysis for each correlation among variables in the model we studied (see Figure 2). We also describe the methods used for performing the meta-SEM on the model.

Meta-Analysis: Bivariate Relationship Analysis and Moderation Analysis

We executed the main and moderator analyses. The main analyses involved assessing random pooled effect sizes for all bivariate correlational effect sizes (r) within each association, utilizing the *metacor* function in *meta* package. To evaluate publication bias in each correlation, we applied Egger's test via *metabias* function in *meta* package. In instances where Egger's test indicated significance, we intended to implement trim-and-fill analysis (Duval & Tweedie, 2000). We calculated heterogeneity among effect sizes for each association using I^2 and Q. The I^2 statistic indicates the proportion of total variation across studies attributable to factors

Figure 2

Specification of Structural Model of Psychology of Working Theory



beyond sampling error (Higgins et al., 2003). For each effect size, 95% confidence intervals (CI) were computed (M. W. L. Cheung, 2014). Following Higgins et al. (2003), I^2 values exceeding 0.25 were indicative of moderate (between 0.25 and 0.50) or high (above 0.75) heterogeneity, prompting further investigation into potential moderating factors. The Q statistic, a conventional test statistic, is derived from the sum of squared deviations of each study's estimate, weighted as per the meta-analysis. The Q statistic p value over 0.05 suggests nonsignificant heterogeneity. Moderation analyses on meta-analyzed correlations were conducted when at least two effect sizes per subgroup were available (Borenstein & Higgins, 2013). Potential moderators examined country context (specifically the United States vs. other countries), sample demographics (people of color, sexual minorities, and women), and types of measurement of economic constraints and marginalization experiences.

Path Analysis

After completing the meta-analyses to determine the correlations among variables, we moved on to examine the structural model based on PWT (see Figure 2). We constructed a correlation matrix from the meta-analyzed correlations, which provided the basis for our path model. In this path analysis, we calculated total, direct, and indirect effects using the structural equation modeling framework in the *Lavaan* package (Rosseel, 2012) in *R* (M. W. L. Cheung, 2014). We estimated standard errors using the delta method (Dowd et al., 2014). To generate uncertainty estimates, we followed the approach recommended by Viswesvaran and Ones (1995), using the harmonic mean of sample sizes from various segments within the meta-analyzed correlation matrix. According to Nieminen (2022), effect sizes in path analysis are classified as follows: values from 0.10 to 0.29 are considered small, those from 0.30 to 0.49 are medium, and those 0.50 or higher are large.

Multigroup Meta-SEM

Multigroup meta-SEM was employed when specific group variables were expected to significantly influence paths in the PWT model. Following the results of the moderation analysis using group variables, the meta-analyzed correlation coefficients for each group were input into the meta-SEM, allowing for group comparisons. Even though we did not have evidence to specifically hypothesize that certain grouping variables would have a meaningful moderating effect on model paths, we planned to conduct a multigroup analysis as a *post hoc* approach based on the results of the moderation analysis.

Results

Risk of Bias Within Studies

The kappa coefficient ($\kappa = 0.81$) indicated substantial initial agreement between the two raters, according to standards set by Cohen (1968) and McHugh (2012). All studies ($n = 38$) exhibited a low risk of bias. For more details, see the collected data.

Synthesis of Results

A table with data extracted from each study is available on the Open Science Framework. Among the studies we reviewed ($n = 38$), the majority ($n = 36$) used a cross-sectional design, while two studies were longitudinal (Duffy et al., 2020; Smith et al., 2020). Geographically, the samples primarily came from North America ($n = 24$). This was followed by Asia ($n = 8$), Europe-Asia ($n = 2$), Africa ($n = 2$), Europe ($n = 1$), and South America ($n = 1$). The data set includes information from 17,965 working adults, with an average age of 36.97 years, and covers a total of 306 effect sizes. The majority of studies were with participants with an average age below 40 ($n = 32$), suggesting a focus on early adulthood rather than on middle-aged or older adults. Indicators of economic constraints were examined in most studies ($n = 32$), followed by work volition ($n = 29$), marginalization ($n = 24$), and career adaptability ($n = 18$).

Among the psychological mediators studied, work volition and career adaptability, work volition received significantly more empirical attention than career adaptability. Regarding measurement, the Economic Constraints Scale (ECS) by Duffy et al. (2019) was most commonly used to assess economic constraints ($n = 18$), followed by

the MacArthur Scale of Subjective Social Status (Adler et al., 2000; $n = 10$). Other measures included annual income ($n = 4$), latent variables of social class ($n = 5$; e.g., Choi et al., 2022), economic difficulties (M. Kim & Kim, 2022), and financial strain ($n = 2$; Creed & Macintyre, 2001). Latent variables of social class are typically constructed from annual household income, subjective social status in the United States, and subjective social status within the community. In this study, we opted to break down the latent variable into more specific indicators (e.g., income, subjective social status) and analyze the correlation of each with other variables to explore more detailed differences between the measures.

To assess experiences of marginalization, the Lifetime Experiences of Marginalization Scale by Duffy et al. (2019) was frequently used ($n = 17$). For gendered marginalization, several instruments were utilized, including the Lesbian, Gay, Bisexual, and Transgender Climate Inventory (Liddle et al., 2004; $n = 2$); the Schedule of Sexist Events Scale (Klonoff & Landrine, 1995); the Gendered Racial Microaggressions Scale for Asian American Women (Keum et al., 2018); and the Heterosexist Harassment, Rejection, and Discrimination Scale (Szymanski, 2006). Racial and ethnic marginalization was measured using tools such as the General Ethnic Discrimination Scale (Landrine et al., 2006; $n = 3$), the Racial and Ethnic Microaggression Scale (Nadal, 2011; $n = 2$), and the Perceived Ethnic Discrimination Questionnaire (Brondolo et al., 2005). Other measures included social marginalization (e.g., M. Kim & Kim, 2022), the Social, Attitudinal, Familial, and Environmental Acculturative Stress Scale (Suh et al., 2016), educational marginalization (e.g., Rossier & Ouédraogo, 2021), the Everyday Discrimination Scale (e.g., Sterling & Allan, 2020; Sternthal et al., 2011; D. R. Williams et al., 1997), the Chronic Illness Rejection and Discrimination Scale (Brewster & Esposito, 2017), and disability severity (e.g., Tokar et al., 2024). These tools are used to gauge various levels of marginalization across different dimensions.

For the measurements of career adaptability, the career adaptability subscale of Career Future Inventory (Rottinghaus et al., 2005; $n = 9$) and CAAS (Savickas & Porfeli, 2012; $n = 11$) were the two primary measures used.

Meta-Analyses

Table 1 presents the results of meta-analyses for 10 correlations within the PWT framework. Before conducting the meta-analyses, we confirmed the absence of significant publication bias across all correlations using Egger's test. Among the 10 correlations, only the correlation between career adaptability and decent work demonstrated a significant publication bias, $t(21) = 2.36$, $p < .05$. Consequently, we conducted a trim-and-fill analysis for this correlation. The trim-and-fill analysis imputed three hypothetical studies to correct for asymmetry in the funnel plot. As a result, five studies were statistically imputed to adjust for potential bias in the funnel plot, leading to an adjusted effect size. Correction for potential publication bias did not alter the significant association between career adaptability and decent work ($r = .36$, 95% CI [.27, .44], $p < .001$). Of the ten correlations analyzed, the relations between economic constraints and decent work and work volition with decent work were the most frequently studied, and all variable relations were statistically significant. The high I^2 values across all correlation groups indicate considerable heterogeneity, highlighting the necessity for further moderator analyses.

Moderator Analyses

We conducted 32 moderator analyses to assess the impact of various study characteristics. These characteristics included the study country of origin (U.S. vs. non-U.S.), sample demographic characteristics (racial/ethnic minority, sexual minority, and women), and the types of measures used to assess economic constraints, marginalization, and career adaptability. We found 11 significant moderation effects. Table 2 presents the significant results of these moderator analyses.

Country

We carried out moderation analyses comparing U.S. and non-U.S. study groups. The results, summarized in Table 2, indicated that among the 10 correlation coefficients, six showed significant differences between the U.S. and non-U.S. groups. Specifically, for the correlation between economic constraints and marginalization, studies from the U.S. and non-U.S. countries showed significantly different correlations, $Q(1) = 5.08$, $p < .05$, with $r = .29$, 95% CI [.22, .35] for U.S. studies and $r = .49$, 95% CI [.21, .69] for non-U.S. studies. In the correlation between economic constraints and career adaptability, there was a significant difference, $Q(1) = 8.09$, $p < .01$,

Table 1
Meta-Analyzed Correlations of the Predictors and Decent Work in the Psychology of Working Theory

Correlation	N_s	N_e	Pooled n	Harmonic n	r	95% CI	I^2, %	Q	Egger's test
M with EC	22	42	17,370	296.71	0.31^{***}	[0.24, 0.37]	94.9	795.55^{***}	$t(40) = -1.01$
M with CA	16	26	11,863	379.59	-0.10^{**}	[−0.16, −0.04]	89.6	241.54^{***}	$t(24) = -1.45$
M with WV	22	26	12,754	350.55	-0.35^{***}	[−0.44, −0.25]	95.7	582.74^{***}	$t(24) = -1.20$
M with DW	24	34	15,475	332.45	-0.44^{***}	[−0.52, −0.35]	96.5	929.91^{***}	$t(32) = -1.38$
EC with CA	17	30	14,128	407.47	-0.16^{***}	[−0.20, −0.12]	83.6	176.78^{***}	$t(28) = -1.87$
EC with WV	26	31	15,605	384.21	-0.41^{***}	[−0.49, −0.33]	96.0	748.26^{***}	$t(29) = -1.07$
EC with DW	31	41	19,069	351.86	-0.36^{***}	[−0.43, −0.29]	96.6	1190.83^{***}	$t(39) = -0.54$
CA with WV	18	21	10,058	381.31	0.44^{***}	[0.39, 0.49]	86.3	145.64^{***}	$t(19) = 0.89$
CA with DW	25[a]	28[a]	10,464	350.96	0.36^{***}	[0.27, 0.44]	94.4	479.68^{***}	$t(21) = 2.36^{*}$
WV with DW	31	32	16,178	373.54	0.64^{***}	[0.56, 0.71]	97.7	1361.23^{***}	$t(30) = 1.52$

Note. Each correlation coefficient represents the meta-analyzed correlation. The degree of freedom of the Q-value is N of effect sizes—1. CI = confidence interval; M = marginalization; EC = economic constraints; CA = career adaptability; WV = work volition; DW = decent work.
[a] With five added studies.
$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

Table 2
Summary of Significant Moderation Effects

Moderator	*k*	No. of ES	*N*	*Q*	*df*	*p*	*r*	95% CI	I^2, %
				EC with M					
U.S. versus non-U.S.				5.08	1	<.05			
U.S.	18	38	15,541				0.29	[0.22, 0.35]	94.5
Non-U.S.	4	4	1,829				0.49	[0.21, 0.69]	93.8
EC measures				105.16	3	<.001			
MacArthur	4	7	2,222				0.12	[0.04, 0.18]	43.8
ECS	16	22	10,888				0.41	[0.36, 0.45]	79.3
Income	5	8	2,620				0.32	[0.06, 0.54]	97.4
Social class	2	5	1,640				0.05	[−0.04, 0.15]	41.2
Sample				35.88	2	<.001			
POC	5	11	4,639				0.24	[0.08, 0.38]	95.1
Sexual minority	3	3	822				0.16	[0.12, 0.21]	0.0
Women	3	4	1,402				0.39	[0.28, 0.50]	59.7
				EC with CA					
U.S. versus non-U.S.				8.09	1	<.01			
U.S.	12	23	11,290				−0.13	[−0.16, −0.09]	74.4
Non-U.S.	5	7	2,838				−0.26	[−0.36, −0.15]	83.0
EC measures				9.97	3	<.05			
MacArthur	2	5	2,505				−0.23	[−0.36, −0.09]	84.7
ECS	13	13	5,873				−0.18	[−0.24, −0.12]	82.5
Income	4	7	2,925				−0.07	[−0.15, −0.00]	63.2
Social class	2	5	2,505				−0.15	[−0.27, −0.03]	81.2
				M with WV					
U.S. versus non-U.S.				7.48	1	<.01			
U.S.	18	22	10,925				−0.39	[−0.48, −0.30]	94.4
Non-U.S.	4	4	1,829				−0.07	[−0.41, 0.28]	95.3
				M with CA					
U.S. versus non-U.S.				28.16	1	<.001			
U.S.	13	23	10,480				−0.07	[−0.12, −0.01]	81.5
Non-U.S.	3	3	1,383				−0.34	[−0.51, −0.15]	66.7
Sample				9.55	2	<.001			
POC	5	13	5,691				−0.03	[−0.09, 0.03]	78.6
Sexual minority	1	1	218				0.14	[0.00, 0.27]	0.0
Women	2	3	1,132				−0.18	[−0.49, 0.16]	87.5
				M with DW					
U.S. versus non-U.S.				5.09	1	<.05			
U.S.	22	30	13,646				−0.46	[−0.54, −0.36]	96.7
Non-U.S.	4	4	1,829				−0.30	[−0.46, −0.11]	84.5
				WV with CA					
CA measures				7.07	1	<.01			
CFI subscale	9	9	4,371				0.51	[0.43, 0.58]	83.8
Others	9	12	5,687				0.39	[0.33, 0.45]	80.2
				WV with DW					
U.S. versus non-U.S.				12.36	1	<.001			
U.S.	19	19	9,815				0.71	[0.62, 0.79]	98.1
Non-U.S.	12	13	6,363				0.51	[0.43, 0.58]	91.3

Note. CI = confidence interval; M = marginalization; ECS = Economic Constraints Scale; CA = career adaptability; WV = work volition; DW = decent work; POC = people of color; EC = economic constraints; CFI = Career Futures Inventory.

between U.S. ($r = -.13$, 95% CI [−.16, −.09]) and non-U.S. studies ($r = -.26$, 95% CI [−.36, −.15]). The analysis of the correlation between marginalization and work volition revealed a significant difference, $Q(1) = 7.48$, $p < .01$, with U.S. studies showing $r = -.39$, 95% CI [−.48, −.30], and non-U.S. studies showing $r = -.07$, 95% CI [−.41, .28]. For the correlation between marginalization and career adaptability, a significant difference was observed, $Q(1) = 28.16$, $p < .001$, with U.S. studies at $r = -.07$, 95% CI [−.12, −.01], and non-U.S. studies at $r = -.34$, 95% CI [−.51, −.15]. In the correlation between marginalization and decent work, the difference was significant, $Q(1) = 5.09$, $p < .05$, with U.S. studies showing $r = -.46$, 95% CI [−.54, −.36], and non-U.S. studies showing $r = -.30$, 95% CI [−.46, −.11]. Last, in the correlation between work volition and decent work, there was a significant difference, $Q(1) = 12.36$, $p < .001$, with U.S. studies at $r = .71$, 95% CI [.62, .79], and non-U.S. studies at $r = .51$, 95% CI [.43, .58].

Demographic Differences

In this moderation analysis, which grouped samples by minority identities—racial/ethnic minorities, sexual minorities, and women—observed significant differences in two of the ten associations examined under the PWT model. The correlation between economic constraints and marginalization varied notably among these groups, $Q(2) = 35.88$, $p < .001$. Specifically, studies with racial/ethnic minorities reported a correlation of $r = .24$ (95% CI [.08, .38]), studies with sexual minorities showed $r = .16$ (95% CI [.12, .21]), and studies with women reported $r = .39$ (95% CI [.28, .50]). Additionally, the correlation between marginalization and career adaptability also showed significant differences across these groups, $Q(2) = 9.55$, $p < .001$. In contrast, studies involving racial/ethnic minorities indicated a correlation of $r = -.03$ (95% CI [−.09, .03]), those with sexual minorities showed $r = .14$ (95% CI [.00, .27]), and studies with women reported $r = -.18$ (95% CI [−.49, .16]).

Measurement of Economic Constraints

In our analysis examining how different measures of economic constraints (MacArthur, ECS, income, and social class) moderated correlations, significant variations were found in two of the ten associations. Specifically, when assessing the correlation between economic constraints and marginalization, distinct differences emerged based on the measurement tool used, $Q(3) = 105.16$, $p < .001$. Studies utilizing the MacArthur scale reported a correlation of $r = .12$ (95% CI [.04, .18]); those using the ECS showed $r = .41$ (95% CI [.36, .45]); income-based measurements yielded $r = .32$ (95% CI [.06, .54]); and those measuring social class indicated $r = .05$ (95% CI [−.04, .15]).

Measurement of Career Adaptability

In examining whether different measures of career adaptability (the CFI subscale vs. all forms of the CAAS) moderated the correlations, significant variation was observed in one of the ten associations. Specifically, for the correlation between career adaptability and work volition, results differed depending on the measurement tool used, $Q(1) = 7.07$, $p < .01$. Studies using the CFI subscale reported a correlation of $r = .51$ (95% CI [.43, .58]), whereas those using others (all forms of CAAS) reported $r = .39$ (95% CI [.33, .45]).

Path Analysis and Alternative Model Testing

We used the 10 meta-analyzed correlations from Table 1 to build an input matrix for our path analyses, as shown in Table 3. The results are illustrated in Figure 3. The R^2 values for decent work, work volition, and career adaptability were .40, .22, and .03, respectively. Every path within the model was found to be significant. The analysis reveals that both marginalization and economic constraints play a significant role, with effects ranging from less than weak to medium in predicting the psychological mediators. Specifically, work volition was more strongly predicted by economic constraints and marginalization in this model ($\beta = -.34$ and $\beta = -.24$, respectively) than by career adaptability ($\beta = -.14$ and $\beta = -.06$, respectively). It is noteworthy that work volition is more predictable in this model than career adaptability, which is also implied in the explained variability ($R^2 = .22$ for work volition and $R^2 = .03$ for career adaptability). Work volition was also more predictive of decent work ($\beta = .48$) than career adaptability ($\beta = .11$). Table 4 outlines the indirect effects of marginalization and economic constraints on decent work. The indirect effects, particularly those mediated by work volition, tend to have a larger effect than those mediated by career adaptability. For instance, the indirect effect of marginalization through work volition is −0.11, compared to −0.01 through career adaptability. Similarly, the indirect effect of economic constraints through work volition is −0.16, whereas it is only −0.02 through career adaptability.

Given the limited explanatory power and conceptual inconsistency of career adaptability in PWT, we examined an alternative model that excluded career adaptability. This analysis utilized six meta-analyzed correlations from Table 1, specifically excluding those related to career adaptability. The findings, depicted in Figure 4, showed that all paths in the alternative model were significant. A key difference in this model is the increased predictive strength of work volition on decent work, which shifted from a medium to a strong effect size ($\beta = .55$). The variance explained in decent work by this model was 0.401, which is only marginally lower by 0.2% compared to the original model.

Multigroup Meta-SEM With U.S. and Non-U.S. Groups

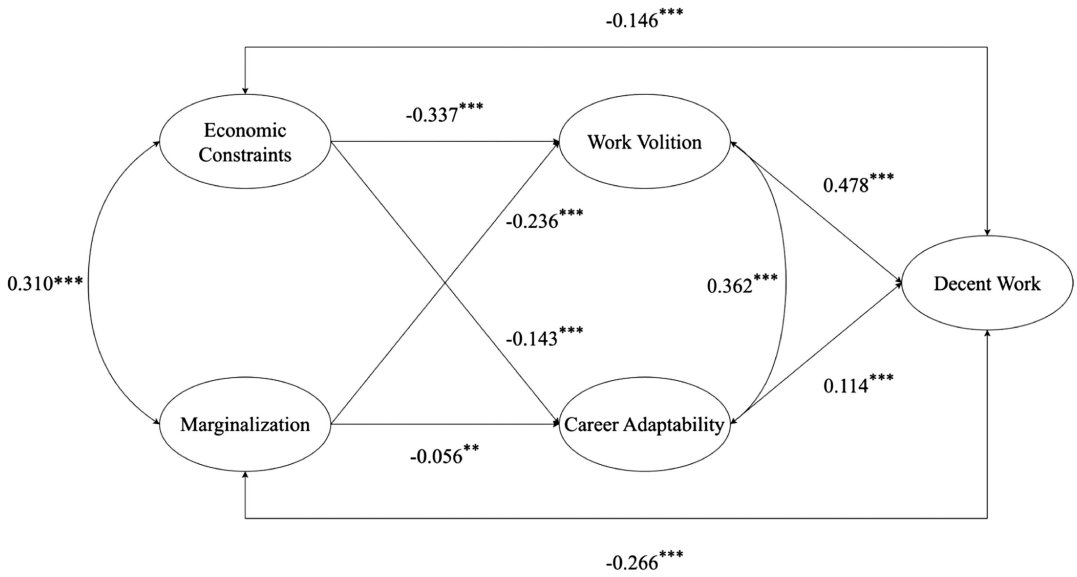
Although we conducted moderation analyses for gender, race/ethnicity, and sexual orientation, we only performed multigroup meta-SEM based on country context because the total number of study sample sizes was only sufficient for conducting multigroup

Table 3
Meta-Analyzed Correlations of the Predictors and Decent Work

Variable	1	2	3	4	5
1. Marginalization	—				
2. Economic constraints	.31*** (42)	—			
3. Work volition	−.34*** (26)	−.41*** (31)	—		
4. Career adaptability	−.10** (26)	−.16*** (30)	.44*** (21)	—	
5. Decent work	−.44*** (34)	−.36*** (41)	.64*** (32)	.36***[a] (28)[a]	—
Total studies (*k*)	26	32	31	20	38

Note. Each correlation coefficient represents the meta-analyzed correlation, with the number of effect sizes listed in parentheses. The last row shows the total number (*k*) of studies per construct.
[a] Effect size and the number of effect sizes after trimming and filling.
** $p < .01$. *** $p < .001$.

Figure 3
Results of Meta-Analysis With Overall Sample



** $p < .01$. *** $p < .001$.

meta-SEM in the U.S. versus non-U.S. comparison. We used the pooled correlation coefficients from both the U.S. and non-U.S. groups (Figure 5). The results indicated that seven out of 10 paths showed significant differences between U.S. and non-U.S. groups. Specifically, the effect of marginalization on work volition was significantly stronger in the U.S. ($\beta = -.28$ for U.S. vs. $\beta = -.15$ for non-U.S., $p < .001$). Conversely, the effect of marginalization on career adaptability was significantly greater in non-U.S. countries compared to the U.S. ($\beta = -.04$ for U.S. vs. $\beta = -.28$ for non-U.S., $p < .001$). The influence of economic constraints on work volition was significantly greater in non-U.S. countries than in the U.S. ($\beta = -.37$ for U.S. vs. $\beta = -.44$ for non-U.S., $p < .001$). Additionally, the effect of work volition on decent work was significantly more pronounced in the U.S. ($\beta = .52$ for U.S. vs. $\beta = .40$ for non-U.S., $p < .001$). However, the effect of career adaptability on decent work was stronger in non-U.S. countries than in the U.S. ($\beta = .16$ for U.S. vs. $\beta = .20$ for non-U.S., $p < .05$). The association between marginalization and economic constraints was stronger in non-U.S. countries than in the U.S. ($\beta = .29$ for U.S. vs. $\beta = .49$ for non-U.S., $p < .001$). Finally, the association between marginalization and decent work was significantly stronger in the U.S. than in non-U.S. countries ($r = -.25$ for U.S. vs. $r = -.20$ for non-U.S., $p < .001$).

Discussion

The present study provides a comprehensive synthesis of studies investigating predictors of decent work within the context of PWT. First, we conducted a meta-analysis of predictors of decent work based on data from 17,965 working adults reported in 38 studies. Second, we examined the moderating effect of country of origin, demographic characteristics, and types of measurement tools for economic constraints and marginalization experiences. Third, we conducted path analyses to examine the PWT hypothesized predictor paths with and without career adaptability. Fourth, we conducted a multigroup meta-SEM with the U.S.- and the non-U.S.-based studies to further test the moderating effect of country context on study results. The following discussion will provide a discussion of the findings from the meta-analysis and recommendations for future research and practice.

The findings of the bivariate meta-analysis indicated that all the variables in the predictor portion of PWT were significantly correlated. Career adaptability had significant negative relations with economic constraints and marginalization and significant positive relations with work volition and decent work. However, consistent with previous reviews (Duffy, Choi, et al., 2024), the effect sizes of the relations were smaller compared to work volition, with very small effects found between adaptability and the two structural

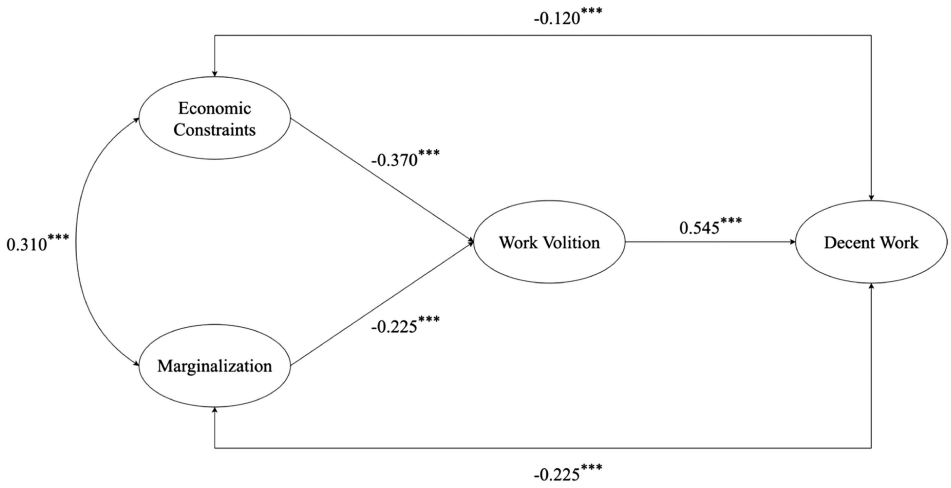
Table 4
Path Analysis of Indirect Effects on Decent Work

Variable	Mediator	*b*	*SE*	*z*	*p*	95% CI
Marginalization	Work volition	−0.11	0.008	−13.76	<.001	[−0.13, −0.10]
Marginalization	Career adaptability	−0.01	0.002	−3.02	<.01	[−0.01, −0.00]
Economic constraints	Work volition	−0.16	0.009	−18.02	<.001	[−0.18, −0.14]
Economic constraints	Career adaptability	−0.02	0.003	−5.94	<.001	[−0.02, −0.01]

Note. CI = confidence interval; *SE* = standard error.

Figure 4

Result of Meta-Analysis of Alternative Model With Overall Sample



*** $p < .001$.

predictors. Importantly, the analysis revealed a high heterogeneity in the correlations associated with career adaptability (I^2: 83.6%–94.4%), thus calling for moderation analyses to figure out where the heterogeneity stems from; heterogeneity was identified in correlations of other variables of interest as well (I^2: 94.9%–97.7%)

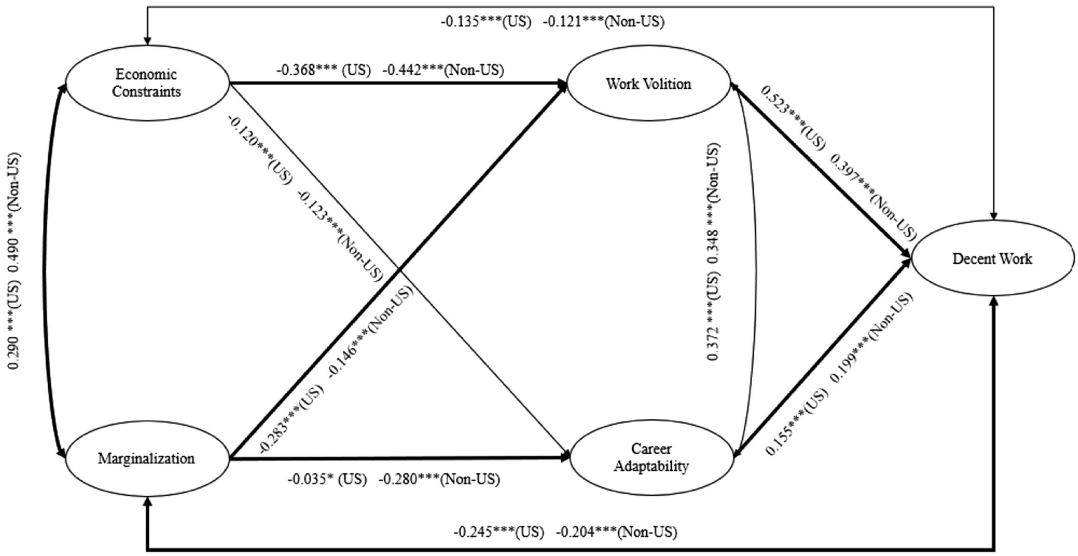
Moderator Analyses

Measurement Tools

Moderation analyses were conducted to examine how effects may differ according to the instruments used to measure economic constraints and career adaptability. The findings supported a significant moderating effect in the bivariate relation between economic constraints and career adaptability. Specifically, studies utilizing the ECS yielded larger effect sizes compared to other measures used, such as the MacArthur scale and income-based measures. Similarly, those who utilized the CFI subscale yielded larger effect sizes compared to other measures of career adaptability. These results are in line with the literature that different psychological instruments can lead to less consistent study results (Fried & Flake, 2018; Sanbonmatsu et al., 2021). Importantly, those measures that were developed based on the operational definition laid out in PWT yielded larger effects, supporting the need to use theory-driven measures in studying PWT

Figure 5

Structural Equation Modeling Model With U.S. and Non-U.S. Samples



Note. Bold line indicates a significant difference of coefficients between U.S. and non-U.S. countries.
* $p < .05$. *** $p < .001$.

propositions (Duffy, Choi, et al., 2024). Therefore, carefully selecting work-specific measures of career adaptability that align with the research question of interest is essential for accurately capturing the construct's role in career development.

Demographic Differences

We probed for model differences among women, sexual minorities, and racial/ethnic minority groups. Our findings indicated that the relation between economic constraints and marginalization significantly varied across all groups. Furthermore, the correlations between marginalization and career adaptability also significantly varied across groups, as indicated by a significant Q test. However, none of the subgroup-level correlations were statistically significant, which warrants caution in interpretation. This suggests that the experiences of economic constraints, marginalization, and career adaptability may depend on individuals' social locations and their access to power, privilege, and resources.

Specifically, the strength of this association was highest among women, followed by racial/ethnic minorities and sexual minorities. This may reflect that women may experience the compounded interpersonal and structural gender-based discrimination in both workplace and societal contexts, which contributes to economic disadvantage, such as lower earnings and limited access to benefits globally (Parker & Funk, 2017). In contrast, although sexual and racial/ethnic minority groups also experience economic constraints and marginalization, the way that they experience these constructs may vary depending on broader sociocultural, institutional, and historical domains. For instance, the relation from work volition and career adaptability to decent work differed between White immigrant workers and immigrant workers of color (T. Kim et al., 2023). Such disparities may be shaped by economic structures under capitalism, such as racial capitalism (Ralph & Singhal, 2019), which can constrain the marginalized population's sense of ability in making career choices. Moreover, economic structures with less capital but more dependent on labor may produce different dynamics within the PWT model due to a less social protection system and a deficit in the quality of jobs (Cazes & Verick, 2013). Therefore, future studies should consider incorporating the macrolevel of demographic and structural domains to better understand variations in PWT outcomes.

Path Analysis

Model and Alternative Model Testing

We conducted a series of path analyses to test the propositions of PWT using the full predictor model. The findings indicated that every path within the structural model was significant. Notably, economic constraints and marginalization more strongly predicted work volition than career adaptability. Additionally, work volition was more predictive of decent work than career adaptability. This is in line with previous findings that career adaptability is a less reliable mediator in testing PWT models (Duffy, Choi, et al., 2024). Relatedly, we tested an alternative model without career adaptability and found the model to evidence a similar fit and predictive ability of decent work. Future researchers who wish to use more parsimonious models may consider omitting career adaptability or may consider using work-specific measures of career adaptability, which better capture the construct originally described in PWT.

Multigroup Meta-SEM With Country Context as Grouping Variable

Our moderation analyses showed that the country in which the study was conducted (U.S. vs. non-U.S. countries) moderated the relations among PWT variables. Given this result and the availability of sufficient subgroup sample sizes, we conducted a multigroup meta-SEM to further examine differences in the path analysis results based on the country context. Specifically, the link between marginalization and work volition, the link between work volition and decent work, and the link between marginalization and decent work were more pronounced in the U.S. studies. On the contrary, the link between marginalization and career adaptability, the link between career adaptability and decent work, the link between economic constraints and work volition, and the link between marginalization and economic constraints were more pronounced in non-U.S.-based studies. These results may indicate the different impact of career adaptability and work volition across different countries. These cross-national differences may be partly explained by the availability of social safety nets and other forms of societal protection. In many non-U.S. contexts, governments provide stronger social programming (e.g., housing protections, unemployment benefits, or universal health care) that can buffer the harmful influences of economic constraints on individuals' experiences of marginalization and vocational development processes. Such protections may allow workers to leverage career adaptability and work volition even when facing structural barriers (Saunoris & Sajny, 2017). In contrast, in contexts with weaker safety nets (such as the United States), economic hardship may make workers more vulnerable to indecent work environments (Staupe-Delgado & Díaz Villarreal, 2023). Likewise, differences in social safety nets may explain why the links between marginalization, economic constraints, work volition, and career adaptability varied across country contexts.

These results further provide support for the need for cross-cultural studies on PWT constructs and suggest different mediators depending on the cultural contexts. Given the limited information on the cultural contexts of the countries included in this study, specific explanations would not be appropriate. For these reasons, future research needs to consider cross-cultural studies with a more nuanced cultural context when studying the predictor domain of PWT. Although more empirical international studies will yield diverse or inconsistent findings of the PWT model, such results are valuable to identify sources of these differences and where they stem from, such as cultural norms, values, or economic circumstances across non-U.S. populations.

Practical Implications

Findings from this meta-analysis offer several implications for practitioners and policymakers who want to promote access to decent work. First, practitioners may want to understand clients' lifetime experiences of marginalization and economic constraints, rather than focusing solely on present-day experiences of discrimination or current economic constraints. Lifetime experiences of marginalization and economic constraints are critical to account for in the context of vocational development because their cumulative effects shape people's access to opportunities, resources, and networks over time. Early deprivation and exclusion can limit the

development of social networks, work capital, and a sense of freedom of choice in their work-related decisions (England et al., 2020; Tate et al., 2015). Therefore, using a lifetime lens may help practitioners understand the compounded structural oppression across the lifespan. In this sense, during an intake session, practitioners might integrate questions about clients' long-term marginalization, financial instability, or intergenerational disadvantage based on their cultural contexts. This exploration can help practitioners contextualize clients' perceived limitations in vocational decision-making and their access to decent work.

Importantly, women, racial/ethnic minorities, and sexual minorities may be more likely to experience both marginalization and economic constraints. When practitioners work with clients from intersecting marginalized backgrounds (e.g., a queer woman of color), they should explore how compounding systems of power, including racism, sexism, and heterosexism, intersect when shaping their access to economic resources and their vocational development (Cho et al., 2013; Hays, 2024). Limited structural competency may lead practitioners to pathologize and invalidate the clients' vocational difficulties, often interrupted by systemic barriers and power dynamics. The lack of space to understand racial and sexual disparities within society may direct the causation of the problem to the client rather than believing their struggles (Dictado & Torres-Harding, 2023), which may negatively influence the therapeutic relationship. Therefore, validating clients' intersecting marginalization and economic constraints instead of pathologizing their experiences would strengthen the therapeutic relationships and promote healing (Hays, 2024). Moreover, it is critical to provide immediate resource connections while providing vocational and emotional support. At the policy level, national and state-level interventions should also consider structural marginalization when determining resource allocation and vocational development programming.

Third, work volition may be a key assessment factor as a central psychological mechanism, linking structural barriers to decent work. Therapists can help clients recover their sense of agency in the world of work by using strength-based interventions. Particularly, improving work volition may be especially beneficial for clients in the United States. Relatedly, our meta-analytic results suggest that culturally responsive care is critical. Specifically, career adaptability may play a more important role for clients' vocational development from non-U.S. contexts. Therapists may support clients by psychoeducating them on career adaptability and providing space for reflection and skill-building on flexibility, adaptability, and coping with changes, which enhance their adaptation skills in work-related challenges.

Limitations and Directions for Future Research

There are several limitations in this study that inform future directions for research. First, a number of studies were excluded because they did not use the DWS or did not focus on working adult populations. Consequently, studies that examined decent work using different measures or focused on other populations (e.g., job seekers) were overlooked. Future studies can expand inclusion criteria to incorporate a broader range of decent work constructs and include more diverse populations. Similarly, most studies in our analysis focused on younger adults who were often in the early stages of their vocational trajectories. It was not our primary analysis, but we found that studies with higher mean ages tended to report weaker correlations between economic constraints and career adaptability. This limits the generalizability of our findings. We encourage future research to focus more on participants across a wider range of age groups, particularly adults over 40, to better understand how aging-related factors may influence access to decent work and other vocational development processes.

Third, our analyses showed that studies conducted in the United States demonstrated stronger links between marginalization and work volition compared to studies conducted in non-U.S. contexts. This highlights the need for further investigation into how marginalization and work volition manifest differently across cultural settings in relation to economic structures (e.g., developing countries characterized by abundance in labor but less capital investment; Cazes & Verick, 2013) or geographical differences (e.g., rural or urban environments). Relatedly, future research may explore alternative models and measurements. For example, scholars can test PWT, excluding career adaptability, or use a different measure for career adaptability. Moreover, most articles that we included for this study were conducted in the United States and Asia, whereas studies from Europe, Africa, South America, and other regions were largely absent. This uneven representation may limit the generalizability of our findings. Specifically, the stronger association between career adaptability and decent work in non-U.S. contexts may primarily reflect vocational contexts specific to Asian countries. Future research would benefit from incorporating more diverse non-U.S. samples to examine whether these cross-national differences are consistent across broader cultural contexts. Especially, applying the perspective of intersectionality may support capturing discrepancies in the sense of career choice, readiness to cope with changes in the world of work, and access to decent work that are uniquely shaped not only by cultural backgrounds but also by identity-based social oppression.

Finally, although multivariate meta-SEM would have been a more comprehensive approach to examine the full theoretical model, it requires complete correlation matrices from each study. Many of the studies included in our meta-analysis did not report all relevant correlations or did not include all the core variables from the PWT model. As such, we chose a univariate meta-SEM approach to include as many studies as possible and maximize generalizability. Future research may aim to collect or request full correlation matrices from primary authors to allow for multivariate meta-analytic techniques that can better account for interdependencies among variables.

References

References marked with an asterisk indicate studies included in the meta-analysis.

Adler, N. E., Epel, E. S., Castellazzo, G., & Ickovics, J. R. (2000). Relationship of subjective and objective social status with psychological and physiological functioning: Preliminary data in healthy white women. *Health Psychology*, *19*(6), 586–592. https://doi.org/10.1037/0278-6133.19.6.586

*Allan, B. A., Tebbe, E. A., Bouchard, L. M., & Duffy, R. D. (2019). Access to decent and meaningful work in a sexual minority population. *Journal of Career Assessment*, *27*(3), 408–421. https://doi.org/10.1177/1069072718758064

*Atitsogbe, K. A., Kossi, E. Y., Pari, P., & Rossier, J. (2021). Decent work in Sub-Saharan Africa: An application of psychology of working theory in a sample of Togolese primary school teachers. *Journal of Career Assessment*, *29*(1), 36–53. https://doi.org/10.1177/1069072720928255

Autin, K. L., Duffy, R. D., Blustein, D. L., Gensmer, N. P., Douglass, R. P., England, J. W., & Allan, B. A. (2019). The development and initial validation of need satisfaction scales within the psychology of working theory. *Journal of Counseling Psychology*, *66*(2), 195–209. https://doi.org/10.1037/cou0000323

*Autin, K. L., Herdt, M. E., Allan, B. A., Zhu, L., Abdullah, M., & Garcia, R. G. (2022). Decent work among women workers: An intersectional approach. *Journal of Counseling Psychology*, *69*(6), 775–785. https://doi.org/10.1037/cou0000634

*Autin, K. L., Shelton, A. J., Diaz Tapia, W. A., Garcia, R. G., & Cadenas, G. A. (2021). Testing psychology of working theory among Spanish-Speaking Latinx workers in the U.S. *Journal of Career Assessment*, *29*(3), 379–395. https://doi.org/10.1177/1069072720976620

*Autin, K. L., Williams, T. R., Allan, B. A., & Herdt, M. E. (2022). Decent work among people of color: The moderating role of critical consciousness. *Journal of Career Assessment*, *30*(3), 455–473. https://doi.org/10.1177/10690727211039811

Balduzzi, S., Rücker, G., & Schwarzer, G. (2019). How to perform a meta-analysis with R: A practical tutorial. *Evidence-Based Mental Health*, *22*(4), 153–160. https://doi.org/10.1136/ebmental-2019-300117

*Blustein, D. L., Allan, B. A., Davila, A., Smith, C. M., Gordon, M., Wu, X., Milo, L., & Whitson, N. (2023). Profiles of decent work and precarious work: Exploring macro-level predictors and mental health outcomes. *Journal of Career Assessment*, *31*(3), 423–441. https://doi.org/10.1177/10690727221119473

Blustein, D. L., Olle, C., Connors-Kellgren, A., & Diamonti, A. J. (2016). Decent work: A psychological perspective. *Frontiers in Psychology*, *7*, Article 407. https://doi.org/10.3389/fpsyg.2016.00407

*Blustein, D. L., Perera, H. N., Diamonti, A. J., Gutowski, E., Meerkins, T., Davila, A., Erby, W., & Konowitz, L. (2020). The uncertain state of work in the U.S.: Profiles of decent work and precarious work. *Journal of Vocational Behavior*, *122*, Article 103481. https://doi.org/10.1016/j.jvb.2020.103481

Borenstein, M., Hedges, L. V., Higgins, J. P. T., & Rothstein, H. (2009). *Introduction to meta-analysis*. Wiley. https://doi.org/10.1002/9780470743386

Borenstein, M., & Higgins, J. P. (2013). Meta-analysis and subgroups. *Prevention Science*, *14*(2), 134–143. https://doi.org/10.1007/s11121-013-0377-7

Bowman, N. A. (2012). Effect sizes and statistical methods for meta-analysis in higher education. *Research in Higher Education*, *53*(3), 375–382. https://doi.org/10.1007/s11162-011-9232-5

Brewster, M. E., & Esposito, J. (2017). Chronic Illness Rejection and Discrimination Scale: An instrument modification and confirmatory factor analysis. *Stigma and Health*, *2*(1), 16–22. https://doi.org/10.1037/sah0000039

Brondolo, E., Kelly, K. P., Coakley, V., Gordon, T., Thompson, S., Levy, E., Cassells, A., Tobin, J. N., Sweeney, M., & Contrada, R. J. (2005). The Perceived Ethnic Discrimination Questionnaire: Development and preliminary validation of a community version. *Journal of Applied Social Psychology*, *35*(2), 335–365. https://doi.org/10.1111/j.1559-1816.2005.tb02124.x

Cazes, S., & Verick, S. (2013). *Perspectives on labour economics for development*. International Labour Organization. https://www.ilo.org/sites/default/files/wcmsp5/groups/public/%40dgreports/%40dcomm/%40publ/documents/publication/wcms_190112.pdf

Charles, E. P. (2005). The correction for attenuation due to measurement error: Clarifying concepts and creating confidence sets. *Psychological Methods*, *10*(2), 206–226. https://doi.org/10.1037/1082-989X.10.2.206

Cheung, F. M. (2000). Deconstructing counseling in a cultural context. *The Counseling Psychologist*, *28*(1), 123–132. https://doi.org/10.1177/0011000000281008

Cheung, M. W. L. (2014). Modeling dependent effect sizes with three-level meta-analyses: A structural equation modeling approach. *Psychological Methods*, *19*(2), 211–229. https://doi.org/10.1037/a0032968

Cheung, M. W. L. (2015). metaSEM: An R package for meta-analysis using structural equation modeling. *Frontiers in Psychology*, *5*, Article 1521. https://doi.org/10.3389/fpsyg.2014.01521

Cho, S., Crenshaw, K. W., & McCall, L. (2013). Toward a field of intersectionality studies: Theory, applications, and praxis. *Signs: Journal of Women in Culture and Society*, *38*(4), 785–810. https://doi.org/10.1086/669608

*Choi, N., Kim, Y. H., & Evans, C. A. (2022). An examination of the psychology of working theory with employed Asian American women. *The Counseling Psychologist*, *50*(8), 1074–1095. https://doi.org/10.1177/00110000221116885

Cohen, J. (1968). Weighted kappa: Nominal scale agreement with provision for scaled disagreement or partial credit. *Psychological Bulletin*, *70*(4), 213–220. https://doi.org/10.1037/h0026256

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Routledge. https://doi.org/10.4324/9780203771587

Creed, P. A., & Macintyre, S. R. (2001). The relative effects of deprivation of the latent and manifest benefits of employment on the well-being of unemployed people. *Journal of Occupational Health Psychology*, *6*(4), 324–331. https://doi.org/10.1037/1076-8998.6.4.324

*De Andrade, A. L., Pires, F. M., & Martins, G. H. (2024). The psychology of working: First evidence with Brazilian workers. *International Journal for Educational and Vocational Guidance*. Advance online publication. https://doi.org/10.1007/s10775-024-09650-1

Dictado, J., & Torres-Harding, S. R. (2023). Predictors of therapy trainees' pathologizing and invalidating microaggressions with sexual and racial minority therapy clients. *Training and Education in Professional Psychology*, *17*(3), 304–313. https://doi.org/10.1037/tep0000424

*Douglass, R. P., Autin, K. L., Buyukgoze-Kavas, A., & Gensmer, N. P. (2020). Proactive personality and decent work among racially and ethnically diverse working adults. *Journal of Career Assessment*, *28*(3), 512–528. https://doi.org/10.1177/1069072719894571

*Douglass, R. P., Velez, B. L., Conlin, S. E., Duffy, R. D., & England, J. W. (2017). Examining the psychology of working theory: Decent work among sexual minorities. *Journal of Counseling Psychology*, *64*(5), 550–559. https://doi.org/10.1037/cou0000212

Dowd, B. E., Greene, W. H., & Norton, E. C. (2014). Computation of standard errors. *Health Services Research*, *49*(2), 731–750. https://doi.org/10.1111/1475-6773.12122

Duffy, R. D., Allan, B. A., England, J. W., Blustein, D. L., Autin, K. L., Douglass, R. P., Ferreira, J., & Santos, E. J. R. (2017). The development and initial validation of the Decent Work Scale. *Journal of Counseling Psychology*, *64*(2), 206–221. https://doi.org/10.1037/cou0000191

Duffy, R. D., Blustein, D. L., Diemer, M. A., & Autin, K. L. (2016). The psychology of working theory. *Journal of Counseling Psychology*, *63*(2), 127–148. https://doi.org/10.1037/cou0000140

Duffy, R. D., Choi, Y., Kim, H. J., & Park, J. (2024). Recommendations for conceptualizing and measuring constructs within psychology of working theory. *Journal of Career Assessment*, *32*(1), 48–62. https://doi.org/10.1177/10690727231179196

Duffy, R. D., Diemer, M. A., Perry, J. C., Laurenzi, C., & Torrey, C. L. (2012). The construction and initial validation of the Work Volition Scale. *Journal of Vocational Behavior*, *80*(2), 400–411. https://doi.org/10.1016/j.jvb.2011.04.002

*Duffy, R. D., Gensmer, N. P., Allan, B. A., Kim, H. J., Douglass, R. P., England, J. W., Autin, K. L., & Blustein, D. L. (2019). Developing, validating, and testing improved measures within the Psychology of Working Theory. *Journal of Vocational Behavior*, *112*, 199–215. https://doi.org/10.1016/j.jvb.2019.02.012

*Duffy, R. D., Gerdel, S., Kim, H. J., & Choi, Y. (2024). Experiencing work as decent, meaningful, neither, or both: A latent profile analysis. *The Journal of Positive Psychology*, *19*(4), 686–698. https://doi.org/10.1080/17439760.2023.2257631

*Duffy, R. D., Kim, H. J., Allan, B. A., & Prieto, C. G. (2020). Predictors of decent work across time: Testing propositions from psychology of working theory. *Journal of Vocational Behavior*, *123*, Article 103507. https://doi.org/10.1016/j.jvb.2020.103507

*Duffy, R. D., Velez, B. L., England, J. W., Autin, K. L., Douglass, R. P., Allan, B. A., & Blustein, D. L. (2018). An examination of the Psychology of Working Theory with racially and ethnically diverse employed adults. *Journal of Counseling Psychology*, *65*(3), 280–293. https://doi.org/10.1037/cou0000247

Duval, S., & Tweedie, R. L. (2000). A nonparametric "Trim and fill" method of accounting for publication bias in meta-analysis. *Journal of the American Statistical Association*, *95*(449), 89–98. https://doi.org/10.1080/01621459.2000.10473905

Einarsdóttir, S., Vilhjálmsdóttir, G., Smáradóttir, S. B., & Kjartansdóttir, G. B. (2015). A culture-sensitive approach in the development of the Career Adapt-Abilities Scale in Iceland: Theoretical and operational considerations. *Journal of Vocational Behavior*, *89*, 172–181. https://doi.org/10.1016/j.jvb.2015.06.006

*England, J. W., Duffy, R. D., Gensmer, N. P., Kim, H. J., Buyukgoze-Kavas, A., & Larson-Konar, D. M. (2020). Women attaining decent work: The important role of workplace climate in Psychology of Working Theory. *Journal of Counseling Psychology*, *67*(2), 251–264. https://doi.org/10.1037/cou0000411

Ezema, G. N., & Autin, K. L. (2024). Examining predictors and outcomes of future decent work perception among Nigerian emerging adults. *Journal of Career Assessment*, *32*(3), 445–461. https://doi.org/10.1177/10690727231201958

Fried, E. I., & Flake, J. K. (2018, February 28). *Measurement matters*. Association for Psychological Science. https://www.psychologicalscience.org/observer/measurement-matters

*Han, M., Zhang, M., Hu, E., & Shan, H. (2023). Decent work among rural–urban migrant workers in China: Evidence and challenges. *Personnel Review*, *52*(4), 916–932. https://doi.org/10.1108/PR-09-2021-0650

Hardin, E. E., Robitschek, C., Flores, L. Y., Navarro, R. L., & Ashton, M. W. (2014). The cultural lens approach to evaluating cultural validity of psychological theory. *American Psychologist*, *69*(7), 656–668. https://doi.org/10.1037/a0036532

Hartung, P. J. (2002). Cultural context in career theory and practice: Role salience and values. *The Career Development Quarterly*, *51*(1), 12–25. https://doi.org/10.1002/j.2161-0045.2002.tb00588.x

Hays, P. A. (2024). Four steps toward intersectionality in psychotherapy using the ADDRESSING framework. *Professional Psychology: Research and Practice*, *55*(5), 454–462. https://doi.org/10.1037/pro0000577

Higgins, J. P., Thompson, S. G., Deeks, J. J., & Altman, D. G. (2003). Measuring inconsistency in meta-analyses. *The BMJ*, *327*(7414), Article 557. https://doi.org/10.1136/bmj.327.7414.557

Hou, Z. J., Leung, S. A., Li, X., Li, X., & Xu, H. (2012). Career Adapt-Abilities Scale—China form: Construction and initial validation. *Journal of Vocational Behavior*, *80*(3), 686–691. https://doi.org/10.1016/j.jvb.2012.01.006

International Labour Organization. (1999). *Decent work: Report of the director-general to the 87th session of the international labour conference*. https://www.ilo.org/public/english/standards/relm/ilc/ilc87/rep-i.htm

International Labour Organization. (2017). *Decent work and the 2030 agenda for sustainable development*. https://ilo.primo.exlibrisgroup.com/discovery/delivery/41ILO_INST:41ILO_V2/1246589040002676

*Jang, W. H., & Lee, J. Y. (2023). Challenges faced by Korean artists: Job insecurity, economic constraints, calling, and career adaptability. *Cogent Psychology*, *10*(1), Article 2260093. https://doi.org/10.1080/23311908.2023.2260093

Kazak, A. E. (2018). Editorial: Journal article reporting standards. *American Psychologist*, *73*(1), 1–2. https://doi.org/10.1037/amp0000263

Keum, B. T., Brady, J. L., Sharma, R., Lu, Y., Kim, Y. H., & Thai, C. J. (2018). Gendered Racial Microaggressions Scale for Asian American women: Development and initial validation. *Journal of Counseling Psychology*, *65*(5), 571–585. https://doi.org/10.1037/cou0000305

*Kim, H. J., Buyukgoze-Kavas, A., Duffy, R. D., & Perez, G. (2025). A cross-cultural validation of psychology of working theory with Turkish working adults. *Journal of Career Assessment*, *33*(2), 215–238. https://doi.org/10.1177/10690727231210815

*Kim, H. J., Duffy, R. D., & Allan, B. A. (2021). Profiles of decent work: General trends and group differences. *Journal of Counseling Psychology*, *68*(1), 54–66. https://doi.org/10.1037/cou0000434

*Kim, H. J., McNeil-Young, V. A., Wang, D., Duffy, R. D., & Underill, B. D. (2022). Women of color and decent work: An examination of psychology of working theory. *The Career Development Quarterly*, *70*(2), 125–137. https://doi.org/10.1002/cdq.12291

*Kim, M., & Kim, J. (2022). Examining predictors and outcomes of decent work among Korean workers. *International Journal of Environmental Research and Public Health*, *19*(3), Article 1100. https://doi.org/10.3390/ijerph19031100

*Kim, N. R., Kim, H. J., & Lee, K. H. (2020). Social status and decent work: Test of a moderated mediation model. *The Career Development Quarterly*, *68*(3), 208–221. https://doi.org/10.1002/cdq.12232

*Kim, T., Autin, K. L., & Allan, B. A. (2023). An examination of psychology of working theory with immigrant workers in the United States. *Journal of Career Assessment*, *31*(1), 190–206. https://doi.org/10.1177/10690727221105023

Klonoff, E. A., & Landrine, H. (1995). The Schedule of Sexist Events: A measure of lifetime and recent sexist discrimination in women's lives. *Psychology of Women Quarterly*, *19*(4), 439–472. https://doi.org/10.1111/j.1471-6402.1995.tb00086.x

*Kozan, S., Işık, E., & Blustein, D. L. (2019). Decent work and well-being among low-income Turkish employees: Testing the psychology of working theory. *Journal of Counseling Psychology*, *66*(3), 317–327. https://doi.org/10.1037/cou0000342

Landrine, H., Klonoff, E. A., Corral, I., Fernandez, S., & Roesch, S. (2006). Conceptualizing and measuring ethnic discrimination in health research. *Journal of Behavioral Medicine*, *29*(1), 79–94. https://doi.org/10.1007/s10865-005-9029-0

*Lee, S., Kim, J.-H., & Lee, K.-H. (2025). Decent work profiles of Korean workers: Antecedents and outcomes of profile membership. *Journal of Career Assessment*, *33*(1), 149–166. https://doi.org/10.1177/10690727241254120

Leong, F. T., & Hartung, P. J. (2000). Cross-cultural career assessment: Review and prospects for the new millennium. *Journal of Career Assessment*, *8*(4), 391–401. https://doi.org/10.1177/106907270000800408

Liddle, B. J., Luzzo, D., Hauenstein, A. L., & Schuck, K. (2004). Construction and validation of the lesbian, gay, bisexual, and transgendered climate inventory. *Journal of Career Assessment*, *12*(1), 33–50. https://doi.org/10.1177/1069072703257722

*Masdonati, J., Schreiber, M., Marcionetti, J., & Rossier, J. (2019). Decent work in Switzerland: Context, conceptualization, and assessment. *Journal of Vocational Behavior*, *110*, 12–27. https://doi.org/10.1016/j.jvb.2018.11.004

McHugh, M. L. (2012). Interrater reliability: The kappa statistic. *Biochemia Medica*, *22*(3), 276–282. https://doi.org/10.11613/BM.2012.031

Nadal, K. L. (2011). The Racial and Ethnic Microaggressions Scale (REMS): Construction, reliability, and validity. *Journal of Counseling Psychology*, *58*(4), 470–480. https://doi.org/10.1037/a0025193

Nam, J. S., & Kim, S. Y. (2019). Decent work in South Korea: Context, conceptualization, and assessment. *Journal of Vocational Behavior*, *115*, Article 103309. https://doi.org/10.1016/j.jvb.2019.05.006

Nieminen, P. (2022). Application of standardized regression coefficient in meta-analysis. *BioMedInformatics*, *2*(3), 434–458. https://doi.org/10.3390/biomedinformatics2030028

Parker, K., & Funk, C. (2017, December 14). *Gender discrimination comes in many forms for today's working women*. Pew Research Center. https://www.pewresearch.org/short-reads/2017/12/14/gender-discrimination-comes-in-many-forms-for-todays-working-women/

*Perez, G., Duffy, R. D., Kim, H. J., & Kim, T. (2023). Social mobility and vocational outcomes: A psychology of working perspective. *Journal of Career Assessment*, *31*(4), 794–811. https://doi.org/10.1177/10690727231161380

Peterson, R. A., & Brown, S. P. (2005). On the use of beta coefficients in meta-analysis. *Journal of Applied Psychology*, *90*(1), 175–181. https://doi.org/10.1037/0021-9010.90.1.175

R Core Team. (2023). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. https://www.R-project.org/

Ralph, M., & Singhal, M. (2019). Racial capitalism. *Theory and Society*, *48*(6), 851–881. https://doi.org/10.1007/s11186-019-09367-z

Rosseel, Y. (2012). lavaan: An R package for structural equation modeling. *Journal of Statistical Software*, *48*(2), 1–36. https://doi.org/10.18637/jss.v048.i02

*Rossier, J., & Ouédraogo, A. (2021). Work volition, decent work, and work fulfilment, in the formal and informal economy in Burkina Faso. *British Journal of Guidance & Counselling*, *49*(2), 255–271. https://doi.org/10.1080/03069885.2021.1879991

Rottinghaus, P. J., Day, S. X., & Borgen, F. H. (2005). The Career Futures Inventory: A measure of career-related adaptability and optimism. *Journal of Career Assessment*, *13*(1), 3–24. https://doi.org/10.1177/1069072704270271

Sanbonmatsu, D. M., Cooley, E. H., & Butner, J. E. (2021). The impact of complexity on methods and findings in psychological science. *Frontiers in Psychology*, *11*, Article 580111. https://doi.org/10.3389/fpsyg.2020.580111

Saunoris, J. W., & Sajny, A. (2017). Entrepreneurship and economic freedom: Cross-country evidence from formal and informal sectors. *Entrepreneurship and Regional Development*, *29*(3–4), 292–316. https://doi.org/10.1080/08985626.2016.1267806

Savickas, M. L. (2002). Career construction: A developmental theory of vocational behavior. In D. Brown (Ed.), *Career choice and development* (4th ed., pp. 149–205). Jossey-Bass.

Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, *80*(3), 661–673. https://doi.org/10.1016/j.jvb.2012.01.011

*Shen, J., Zhang, B., & Huang, W. (2024). Attaining decent work among Chinese rural migrants: Exploring the roles of psychological ownership and proactive personality within the psychology of working theory. *Journal of Counseling Psychology*, *71*(2), 126–137. https://doi.org/10.1037/cou0000713

Singh, A. A., Appling, B., & Trepal, H. (2020). Using the multicultural and social justice counseling competencies to decolonize counseling practice: The important roles of theory, power, and action. *Journal of Counseling & Development*, *98*(3), 261–271. https://doi.org/10.1002/jcad.12321

*Smith, R. W., Baranik, L. E., & Duffy, R. D. (2020). Psychological ownership within psychology of working theory: A three-wave study of gender and sexual minority employees. *Journal of Vocational Behavior*, *118*, Article 103374. https://doi.org/10.1016/j.jvb.2019.103374

Staupe-Delgado, R., & Díaz Villarreal, L. E. (2023). Bracing for turmoil: Temporalities of livelihood adaptation among informal workers in Facatativá, Colombia. *Oxford Development Studies*, *51*(3), 233–251. https://doi.org/10.1080/13600818.2023.2195623

*Sterling, H. M., & Allan, B. A. (2020). Construction and validation of the Quality of Maternity Leave Scales (QMLS). *Journal of Career Assessment*, *28*(2), 337–359. https://doi.org/10.1177/1069072719865163

Sternthal, M. J., Slopen, N., & Williams, D. R. (2011). Racial disparities in health: How much does stress really matter? *Du Bois Review*, *8*(1), 95–113. https://doi.org/10.1017/S1742058X11000087

Su, X., & Chan, K. L. (2023). The associations of decent work with wellbeing and career capabilities: A meta-analysis. *Frontiers in Psychology*, *14*, Article 1068599. https://doi.org/10.3389/fpsyg.2023.1068599

*Su, X., Wong, V., & Liang, K. (2023). Effects of contextual constraints, work volition, and career adaptability on decent work conditions among young adult social workers: A moderated mediation model. *International Journal of Adolescence and Youth*, *28*(1), Article 2245451. https://doi.org/10.1080/02673843.2023.2245451

Suh, H., Rice, K. G., Choi, C., Van Nuenen, M., Zhang, Y., Morero, Y., & Anderson, D. (2016). Measuring acculturative stress with the SAFE: Evidence for longitudinal measurement invariance and associations with life satisfaction. *Personality and Individual Differences*, *89*, 217–222. https://doi.org/10.1016/j.paid.2015.10.002

Szymanski, D. M. (2006). Does internalized heterosexism moderate the link between heterosexist events and lesbians' psychological distress? *Sex Roles*, *54*(3–4), 227–234. https://doi.org/10.1007/s11199-006-9340-4

Tak, J. (2012). Career Adapt-Abilities Scale—Korea form: Psychometric properties and construct validity. *Journal of Vocational Behavior*, *80*(3), 712–715. https://doi.org/10.1016/j.jvb.2012.01.008

Tate, K. A., Caperton, W., Kaiser, D., Pruitt, N. T., White, H., & Hall, E. (2015). An exploration of first-generation college students' career development beliefs and experiences. *Journal of Career Development*, *42*(4), 294–310. https://doi.org/10.1177/0894845314565025

Tebbe, E. A., Allan, B. A., & Bell, H. L. (2019). Work and well-being in TGNC adults: The moderating effect of workplace protections. *Journal of Counseling Psychology*, *66*(1), 1–13. https://doi.org/10.1037/cou0000308

*Tokar, D. M., Duffy, R. D., & Kaut, K. P. (2024). Predictors of work fulfillment and general well-being in workers with Chiari malformation: The importance of decent work. *Journal of Career Assessment*, *32*(2), 283–304. https://doi.org/10.1177/10690727231190630

*Tokar, D. M., & Kaut, K. P. (2018). Predictors of decent work among workers with Chiari malformation: An empirical test of the psychology of working theory. *Journal of Vocational Behavior*, *106*, 126–137. https://doi.org/10.1016/j.jvb.2018.01.002

*Vilhjálmsdóttir, G. (2021). Young workers without formal qualifications: Experience of work and connections to career adaptability and decent work. *British Journal of Guidance & Counselling*, *49*(2), 242–254. https://doi.org/10.1080/03069885.2021.1885011

Vilhjálmsdóttir, G., Kjartansdóttir, G. B., Smáradóttir, S. B., & Einarsdóttir, S. (2012). Career Adapt-Abilities Scale—Icelandic form: Psychometric properties and construct validity. *Journal of Vocational Behavior*, *80*(3), 698–704. https://doi.org/10.1016/j.jvb.2012.01.013

Viswesvaran, C., & Ones, D. (1995). Theory testing: Combining psychometric meta-analysis and structural equations modeling. *Personnel Psychology*, *48*(4), 865–885. https://doi.org/10.1111/j.1744-6570.1995.tb01784.x

von Elm, E., Altman, D. G., Egger, M., Pocock, S. J., Gøtzsche, P. C., Vandenbroucke, J. P., & the STROBE Initiative. (2014). The strengthening the reporting of observational studies in epidemiology (STROBE) statement: Guidelines for reporting observational studies. *International Journal of Surgery*, *12*(12), 1495–1499. https://doi.org/10.1016/j.ijsu.2014.07.013

*Wang, D., Jia, Y., Hou, Z., Xu, H., Zhang, H., & Guo, X. (2019). A test of psychology of working theory among Chinese urban workers: Examining predictors and outcomes of decent work. *Journal of Vocational Behavior*, *115*, Article 103325. https://doi.org/10.1016/j.jvb.2019.103325

Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socio-economic status, stress and discrimination. *Journal of Health Psychology*, *2*(3), 335–351. https://doi.org/10.1177/135910539700200305

*Williams, T. R., Autin, K. L., Pugh, J., Herdt, M. E., Garcia, R. G., Jennings, D., & Roberts, T. (2023). Predicting decent work among US Black workers: Examining psychology of working theory. *Journal of Career Assessment*, *31*(4), 756–772. https://doi.org/10.1177/10690727221149456

Xu, H. (2020). Incremental validity of the Career Adapt-Abilities Scale total score over general self-efficacy. *Journal of Vocational Behavior*, *119*, Article 103425. https://doi.org/10.1016/j.jvb.2020.103425

Received April 1, 2025
Revision received August 28, 2025
Accepted October 21, 2025 ■