8 Meta-Analysis as a Tool to Synthesize Global Work–Family Research Findings

Soner Dumani, Kimberly A. French, and Tammy D. Allen

Research examining the interplay between work and family roles has flourished over the past few decades (Allen, 2012; Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005). What started as an area that predominantly relied on North American samples has increasingly adopted a cross-cultural perspective to understand the prevalence of work–family experiences and the generalizability of findings across different cultural contexts (Allen, 2012). Given the challenges with obtaining representative samples in certain cultures and conducting cross-cultural research (Beins, 2011), the progress of the cross-cultural work–family literature has been slow but steady (Casper, Allen, & Poelmans, 2014). One way to critically examine how individuals from different cultural contexts experience work and family domains is to conduct meta-analytic studies.

Modern meta-analysis began to take shape in the 1970s and Glass coined the term in 1976 (Shadish, 2015). Historically, mathematical ways of dealing quantitatively with varying observations dates back to the seventeenth century and these quantitative approaches mostly helped determine the value of possible gambles in games of chance (O'Rourke, 2007). Mathematicians and astronomers began summarizing results from different studies in the eighteenth and nineteenth centuries, and in the twentieth century statisticians began combining results from different clinical trials. Today meta-analysis refers to a systematic set of methods for searching for and coding comparable studies, the statistical synthesis of the resulting data, and the interpretation and presentation of the results (Schmidt, 2015).

Meta-analysis helps the researcher make sense of the existing literature, aiding in the accumulation and organization of scientific knowledge on a topic. It offers advantages over narrative reviews. Narrative reviews can be inefficient to extract and report information, especially when a body of literature is large or conflicting. Moreover, narrative reviews are considered to be more subjective and thus vulnerable to bias. While narrative reviews tend to focus on statistical significance versus nonsignificance, meta-analysis permits the computation of the strength/magnitude and the variability of the effect size between two variables, across all studies (Glass, 2015).

Many meta-analytic studies are de facto *international* by including all relevant publications (De Leeuw & Hox, 2003). However, in addition to the inclusion of studies from different countries and cultures, explicit hypothesizing and testing

https://doi.org/10.1017/9781108235556.008 Published online by Cambridge University Press

for cross-cultural variation are essential for a meta-analysis that aims to extend our understanding of global work and family phenomena. In this respect, a meta-analysis researcher adopting a cross-cultural lens may follow two approaches. First, he or she may explicitly focus on the mean levels of constructs of interest in certain cultural contexts. Second, he or she may examine the relationships involving the constructs of interest across certain cultural contexts (i.e., assess culture as a moderator). These two approaches of using meta-analysis to understand the global work–family interface are similar to what we typically observe in primary cross-cultural work–family studies (see Shockley, Douek, Smith, Yu, Dumani, & French, 2017).

The first approach examines the direct role of culture by typically comparing mean levels or prevalence rates. These comparisons may be made across countries or based on countries clustered according to cultural values (e.g., collectivism) and/or regions (e.g., Latin America). For example, in a primary study, Allen, Shockley, and Biga (2010) reported mean differences in work–life effectiveness (i.e., the absence of work-to-family conflict) across countries clustered into high, medium, and low bands with regard to the cultural values of gender egalitarianism, collectivism, humane orientation, and performance orientation. The second approach examines the moderating role of culture. In this case, the researcher investigates whether relationships, such as that between work demands and work-family conflict (WFC), vary across cultural context. For example, in a primary study, Lallukka, Chandola, Roos, Cable, Sekine, Kagamimori et al. (2010) investigated if relationships between bidirectional WFC and health behaviors differed across samples of British, Finnish, and Japanese employees. Again, countries or country clusters may be used for such comparisons.

The purpose of this chapter is to provide an in-depth overview of adopting a meta-analytical approach to understand the work–family interface from a cross-cultural perspective. Through this chapter, we hope to convey to readers: (1) the potential research questions a meta-analysis on global work and family issues can answer compared to individual studies, (2) effective strategies for conducting a meta-analysis, and (3) the importance of meta-analysis for global work and family research. We aim to achieve these objectives by providing a succinct and comprehensive summary of existing meta-analytical studies on work and family research, and identifying future research directions. In order to encourage readers to use meta-analysis to address the gaps in the literature, we also present an overview of how to conduct a comprehensive meta-analysis with an emphasis on specific lessons we have learned from conducting our own cross-cultural meta-analytic studies (Allen, French, Dumani, & Shockley, 2015; French, Dumani, Allen, & Shockley, 2015).

Throughout the chapter, we use the terms "culture" and "country" interchangeably to encompass both cultural context and country characteristics. Culture and country do not always reference the same underlying mechanism due to imposed national boundaries, political differences within a country, and existence of subcultures (Schaffer & Riordan, 2003). However, country is typically used as a proxy for culture in cross-cultural research and especially in work–family research, culture is not assessed at the individual level. This precludes fine-grained distinctions between "culture" and "country" (Allen, French, Dumani, & Shockley, 2015).

Meta-Analysis in Work and Family Research

The popularity of meta-analysis in the field of I-O psychology is unprecedented (DeGeest & Schmidt, 2011). Accordingly, the number of meta-analytic studies in work and family research has also been on the rise. Given that national context is typically regarded as the "elephant in the room" for work and family research (Ollier-Malaterre, Valcour, Den Dulk, & Kossek, 2013) and most of the primary studies on work–family research originate from North America (Powell, Francesco, & Ling, 2009), it is not surprising that the majority of work–family meta-analyses do not empirically investigate culture. Table 8.1 provides a brief description of the extant meta-analytic studies published in the organizational work and family literature. We identified twenty-three meta-analyses and examined them in terms of their objective, their coding scheme (whether or not country/nationality of sample is coded), and their acknowledgement of potential cultural differences in findings either as part of moderator analyses and/or the discussion of findings.

Several observations can be made about the progression of meta-analytic studies in work and family research across time. First, the construct of WFC has been studied more extensively than alternative inter-role constructs, such as work–family enrichment (WFE) or work–family balance. Earlier meta-analyses focused primarily on identifying the most consistent predictors and outcomes of WFC (e.g., Allen, Herst, Bruck, & Sutton, 2000; Kossek & Ozeki, 1998). In recent years, the complexity of meta-analytic research questions paralleled the increase in primary studies on the topic. The focus shifted towards testing cross-domain models of work-to-family conflict (WIF) and family-to-work conflict (FIW) (e.g., Ford, Heinen, & Langkamer, 2007), comparing alternative models of WFC (Michel et al., 2009), examining relationships specifically based on different theoretical perspectives such as cross-domain versus matching domain hypotheses (Amstad, Meier, Fasel, Elfering, & Semmer, 2011), and using path models to determine the temporal directionality of the WFC and strain relationship (Nohe, Meier, Sonntag, & Michel, 2015). The nomological network of WFC and WFE has also expanded over time. Recent meta-analyses explored the relationships between WFC and personality variables (Allen, Johnson, Saboe, Cho, Dumani, & Evans, 2012), flexible work arrangements (Allen, Johnson, Kiburz, & Shockley, 2013), work–family policies (Butts, Casper, & Yang, 2013), and leadership interactions (Litano, Major, Landers, Streets, & Bass, 2016).

Although the complexity of research questions posed by meta-analyses in the work and family research domain has increased, several major limitations exist given the limited number of primary studies on specific relationships. For example, job attitudes (e.g., job satisfaction, organizational commitment, turnover intentions) and health-related outcomes (e.g., psychological strain) related to WFC are often studied, yet evidence for performance (e.g., organizational citizenship, family performance) and career success correlates are limited. For example, Allen and colleagues (2000) identified only two independent samples reporting relationships between WIF and career satisfaction, and a decade later Amstad and colleagues (2011) reported only

Table 8.1 *Work–family meta-analyses*

Reference	Study Objective	Coded for Country Sample	Moderators Examined	National Culture as a Moderator?	Acknowledgment of Potential Cultural Differences
Kossek & Ozeki, 1998	Examine the relationship between WIF/FIW and job satisfaction and life satisfaction	No	Gender, marital status, dual-earner status, specific measurement of study variables	No	None
Kossek & Ozeki, 1999	Examine relationship between WIF/FIW and six work outcomes	No	None	No	None
Allen et al., 2000	Examine the relationship between WIF and work-related, nonwork-related, and stress-related outcomes	Yes	No explicit moderators	No	The significant relationship between WIF and job satisfaction for studies conducted outside of the US is mentioned
Byron, 2005	Examine the relationship between individual, work-related, and nonwork related- antecedents of WFC, WIF, and FIW	No	Gender, parenting status, measurement of antecedents	No	None
Mesmer-Magnus & Viswesvaran, 2005	Investigate the convergence of WIF and FIW measures and determine their potential incremental	No	None	No	None

Table 8.1 (*cont.*)

Reference	Study Objective	Coded for Country Sample	Moderators Examined	National Culture as a Moderator?	Acknowledgment of Potential Cultural Differences
	prediction over outcome variables				
Mesmer-Magnus & Viswesvaran, 2006	Examine the relationship between different facets of family-friendly work environments and WIF, FIW	No	None	No	None
Ford et al., 2007	Test two cross-domain path models 1) work domain antecedents-WIF-family satisfaction and 2) family domain antecedents-FIW-job satisfaction	Only North American samples included	Gender, time spent at work, family characteristics (marital status, parental status), dual-earner status,	No	The authors discussed culture as a potential moderator due to the potential differences in the meaning of work and family and cognitive attributional judgments, and intracultural differences in work and family values.
Michel & Hargis, 2008	Compare indirect effect work–family conflict models and direct effect segmentation models in explaining job and family satisfaction	No	None	No	None

Michel et al., 2009	Use meta-analytic path analyses to examine theoretical work–family models and an integrative model	No	None	No	None
Hoobler et al., 2010	Examine the relationships among WIF, FIW, work performance, objective (e.g., salary) and subjective (e.g., career satisfaction) career outcomes	No	Age	No	None
McNall et al., 2010	Examine the relationships between WFE, FWE, and work-related, nonwork-related, and health-related outcomes	No	Gender, construct labeling of positive spillover (e.g., enrichment, spillover, facilitation, enhancement)	No	None
Michel, Kotrba, et al., 2010	Test three competing models of antecedents of WIF and FIW	No	None	No	None
Michel, Mitchelson, et al., 2010	Examine different categories of antecedents (e.g., role stressors, social support, work/family characteristics, personality) of WIF and FIW	No	Marital status, parental status, gender	No	None
Amstad et al., 2011	Examine the work-related, family-related, and domain-	Yes	Time spent at work, parental status	No but explicitly stated that the origin	No but economic changes in non-US

Table 8.1 (*cont.*)

Reference	Study Objective	Coded for Country Sample	Moderators Examined	National Culture as a Moderator?	Acknowledgment of Potential Cultural Differences
	unspecific outcomes associated with WIF and FIW from both cross-domain and matching domain perspectives			of sample was not included as a moderator due to almost all studies being from the US	countries were mentioned in the discussion
Kossek et al., 2011	Examine the relationship between different types of perceived work social support and WIF	No	None	No	Yes, the potential impact of cultural contexts on the type and source of social support is mentioned in the discussion
Michel et al., 2011	Examine the unique and combined effects of five-factor personality model on WIF, FIW, WFE, and FWE.	No	None	No	None
Shockley & Singla, 2011	Incorporate domain specificity and source attribution perspectives to understand the relationships between WIF, FIW, WFE, FWE, job satisfaction, and family satisfaction.	Yes	Gender	No	None

Allen et al., 2012	Examine the relationships between dispositional variables and WIF, FIW	No	Gender, parental status, marital status	No	None
Allen et al., 2013	Examine the relationship between flexible work arrangements and WIF, FIW	No	Gender, marital status, parental status, work hours	No	None
Butts et al., 2013	Test several models linking work–family support policy availability and use to family-supportive perceptions, WIF, and work attitudes	Yes (US vs. Non-US)	Number of work-support policies, gender, marital status, dependent care status	No	None
Allen et al., 2015	Investigate country-level cultural, institutional, and economic factors to understand mean differences in WIF and FIW	Yes	N/A	N/A	Yes
Nohe et al., 2015	Use path analyses to determine the directionality of the relationship between WIF/FIW and work-related strain	Yes	Gender, time lag between the measurement waves, study type (published vs. unpublished), model type (cross-lagged vs. common factor)	No	None
Litano et al., 2016	Examine the relationships between leader-member exchange, and WIF, FIW, WFE, and FWE	Yes	Cultural context, job autonomy, leader-member exchange measurement, study type	Yes (individualism-collectivism and power distance)	Yes

It is important to note that the information displayed in Table 8.1 is based on what the authors explicitly reported in their published work. It might be the case that some authors in fact coded for country as part of their sample characteristics but failed to suggest so in their articles. In this case, this information was still presented as "country of sample is not coded."

four correlations for the same relationship. The limited number of correlations or effect sizes makes it impossible to study moderators, including those moderators related to culture. Even when a larger number of primary studies exists for a given relationship (e.g., WIF with job satisfaction or turnover intentions), the moderators examined by researchers tend to be restricted to those variables typically used as controls in primary studies such as demographic variables (e.g., gender, marital status, parental status) and work/family characteristics (e.g., work hours, dependent care status). Only a handful of meta-analyses looked at potential moderating roles of operational definitions of measures, time lag between measures, and study type (published vs. unpublished studies).

Current meta-analyses in work and family research are empirically inconclusive about the extent to which observed relationships can be generalized cross-culturally. Among twenty-three meta-analyses identified in Table 8.1, only eight explicitly indicated that country/nationality of primary samples was part of the structured coding procedure. However, in five out of these eight studies, authors were unable to conduct further analyses using country due to the limited number of non-US samples. For example, in Byron's (2005) meta-analysis, country of origin was not used as a moderator because most of the included studies were conducted in the United States and Canada.

Cross-cultural differences are also largely ignored conceptually in the development and discussion of the majority of published meta-analyses. Only six of the meta-analyses mentioned potential cross-cultural differences in their interpretation of study findings and study limitations. For example, Kossek and colleagues (2011) examined the relationship between different types of perceived support at work and WIF. The authors did not explicitly mention country as one of their coding criteria but in the discussion section, argued that cultural context matters in these relationships because culture directly impacts both types and sources of support at work. Ford and colleagues (2007) only included studies that were conducted in North America in their meta-analysis but highlighted the potential role of cultural context in the meaning of work and family and cognitive attributional judgments as theoretical implications. Allen et al. (2000) coded for country in their meta-analysis, and tested the relationship between WIF and job satisfaction for studies conducted outside of the United States (the relationship remained significant). We applaud these authors for advancing cross-cultural thinking despite limited empirical data from non-US countries. As we wait for more primary studies outside of the United States to accumulate, we strongly believe that acknowledging cross-cultural differences and providing rationale for potential differences across tested relationships are important for both theory development and practical implications.

Currently, two meta-analyses in work and family research incorporate cultural variables. Allen and colleagues (2015) investigated the relative cross-cultural mean difference in levels of both WIF and FIW. The authors focused on the cultural dimensions of gender egalitarianism and individualism/collectivism to define cultural context. They also examined other national-level contextual variables including institutional (i.e., Organization for Economic Co-operation and

Development work–family balance rankings and US/non-US distinction as a proxy for national work–family policies), and national economic (i.e., gross domestic product, unemployment rate, and gender gap index score) factors. The authors identified eighteen studies with fifty-three independent samples assessing WIF and/or FIW across two or more countries. No significant differences in WIF or FIW were found for high versus low gender egalitarian cultures. In addition, there were no significant mean level differences in WIF for collectivistic versus individualistic cultures. However, individualistic cultures reported less FIW than collectivistic cultures. This difference was driven by Asian collectivistic societies, which reported greater FIW relative to Anglo societies. The same finding emerged when US samples were compared to non-US samples. The authors also found that higher gender gap countries reported greater FIW than lower gender gap countries.

The findings of Allen and colleagues (2015) meta-analysis are important in that they bring to light three key issues. First, understudied macro-level factors such as cultural context appear to have more critical implications for FIW than WIF. The authors attribute this finding to the stronger association between work-related factors and WIF relative to non-work related factors identified in previous meta-analyses. Second, those implications may differ based on specific countries within the same cultural dimension (e.g., Asian versus Latin American cultures although both are collectivistic). Lastly, assumptions, such as the United States experiencing more WFC due to lack of national work–family policies, might not be supported by the empirical literature.

In another recent meta-analysis, Litano and colleagues (2016) tested whether the cultural dimensions of individualism/collectivism and power distance moderated the negative relationship between leader-member exchange (i.e., the quality of the reciprocal relationship between a supervisor and a subordinate) and WIF. Culture was not examined as a moderator for FIW, WFE, or FWE due to limited country variation across samples. In line with the Allen et al.'s (2015) findings, the authors did not find support for collectivism/individualism as a moderator of the relationship between leader-member exchange and WIF. However, a stronger negative relationship between leader-member exchange and WIF was observed for low power distance cultures compared to high power distance cultures. This finding demonstrates that the intensity to which quality work relationships reduce WFC may depend on specific cultural context. Given that current theories in work and family research, such as the Job Demands-Resources model, are used to explain the negative relationship between high quality relationships and WIF, incorporating culture-specific variables to explain both the boundary conditions of such relationships and the mediating mechanisms becomes important to extend the applications of our theoretical models cross-culturally.

As evident in the aforementioned meta-analyses, there is a need for a conceptually and methodologically sophisticated understanding of the cross-cultural work–family interface. The following section outlines suggestions to help interested readers conduct their own cross-cultural meta-analysis in order to contribute to this aim.

Conducting a Comprehensive Cross-Cultural Meta-Analysis

Conducting a thorough and rigorous meta-analysis takes ample time, effort, and thought. Several books (e.g., Borenstein, Hedges, Higgins, & Rothstein, 2009; Schmidt & Hunter, 2014) as well as several published articles (e.g., Aguinis, Pierce, Bosco, Dalton, & Dalton, 2011; Aytug, Rothstein, Zhou, & Kern, 2012) are available to provide guidelines and best practices for conducting a comprehensive and rigorous meta-analysis. For the purposes of this chapter, we highlight best practices for meta-analyses with a cross-cultural focus during each phase of the study.

Clarifying the objective. The objective of any meta-analytic study is important, as it determines what information the author will collect, from where, and how it will be analyzed. For cross-cultural meta-analysis, there are two important points to clarify within the objective. First, is the focus on examining mean differences across countries/cultures, or instead, examining country/culture as a moderator? If the meta-analysis focuses on mean differences, the authors may convert means to a scale that reflects the percentage of the total maximum scale in order to compare means across diverse rating scales (see Meyer, Stanley, Jackson, McInnis, Maltin, & Sheppard, 2012). This approach allows for the inclusion of many studies. However, researchers must be careful to ensure rating scales are conceptually equivalent in order to warrant mean comparisons. For example, Meyer and colleagues (2012) used this approach, but only focused on one popular, validated measure of commitment. If researchers wish to include diverse scales (as is common in work–family meta-analyses), we recommend only including studies that report means for multiple countries using the same items (see for example Allen et al., 2015). While this latter approach limits the size of the meta-analytic comparisons, it helps to ensure conceptual clarity that might be muddled by comparing diverse scales. These means are then used to compute a standardized difference score within each study, and the standardized scores from each study would then be meta-analytically combined (e.g., Allen et al., 2015). If the meta-analysis focuses on country or culture as a moderator, single country studies can be included by treating country as a categorical or continuous between-study moderator (e.g., Litano et al., 2016).

The second question to address is whether the study will use reported cultural values or imputed cultural values. Given that only a limited number of work–family studies collect self-reported cultural values (Shockley et al., 2017), the pool of eligible studies using self-reported cultural values would likely be too small for meta-analytic methods. Fortunately, several large cross-cultural studies and databases exist that provide cultural values for specific countries. These values may be imputed into the meta-analysis to allow for cross-cultural comparisons. For example, in our work, we have imputed cultural values from the GLOBE study and economic values from the World Economic Forum. The GLOBE study provides numeric values representing several cultural dimensions for sixty-two different societies (House et al., 2004). Similarly, the World Economic Forum provides country-specific economic information, such as unemployment rate and GDP, for most

https://doi.org/10.1017/9781108235556.008 Published online by Cambridge University Press

countries around the world. We imputed values into our meta-analysis by matching the country associated with a sample to its corresponding cultural information in the cross-cultural study or database (Allen et al., 2015; French et al., 2015).

If imputed values are used, consideration should be given to the potential frameworks that could be used and the coding that will be necessary for each. The choice of framework should be appropriate for the study purpose, and ideally should be constructed based on up-to-date, empirically validated information. For example, we used the House et al.'s (2004) GLOBE study because it reflects the most recently developed set of cultural values, and it contains dimensions commonly used in previous WFC research (e.g., Spector et al., 2007). However, using the GLOBE study meant we could only include data based on countries that were included in the sixty-two GLOBE societies, and some countries needed to be coded for more specific "societies" within a country (e.g., Germanic vs. French Switzerland). Other frameworks, such as Hofstede (1980) and Triandis (1989), have also been used to explain cross-cultural differences in the work–life interface (Ollier-Malaterre & Foucreault, 2016).

Locating sources. In order to capture all relevant primary studies, meta-analytic searches should be conducted across multiple databases (e.g., PsychINFO, ABI/INFORM Global, Google Scholar, JSTOR). For cross-cultural meta-analysis, country or a country characteristic (e.g., culture, policies) is likely included as a second-level substantive variable. That is, studies are nested within countries. It is therefore ideal to have a great deal of variation in both the number of countries and studies within country, so that the meta-analysis has sufficient power to detect country-level effects. Doing a thorough literature search ensures such variability. One way to ensure sufficient variation is by combining traditional search terms (e.g., work–family) with country names (see for example Shockley et al., 2017). This strategy might also be useful for targeting research within a particular country or region of interest. Expanding the search to include dissertations, conference submissions, and specific journals that publish cross-cultural work is also important to ensure representativeness. For example, in addition to the traditional database searches, Amstad et al. (2011) examined two leading European journals in the field of work and organizational psychology to specifically include studies conducted outside of North America. Inter-library loan services are helpful during this process, as many potentially relevant articles will be located overseas, in book chapters, or in dissertation records that may be inaccessible through local library resources. In the event that one cannot locate a full-text or need additional information, such as a correlation table or measure items, authors may be contacted directly. As a final data collection step, unpublished data can be collected by using relevant listserv announcements or by directly reaching out to authors who regularly study your work–family phenomenon of interest.

We recommend that researchers closely document their search process in order to maintain methodological clarity and rigor. For example, in our work we have created a spreadsheet to indicate which studies were screened (authors, title, outlet, type of study), where the studies were identified, and whether or not the study was included.

If a study was excluded, we also indicated why the study was excluded. This information can be used to create a PRISMA flow chart that depicts the screening and exclusion process step-by-step (see Figure 8.1; Moher, Liberati, Tetzlaff, & Altman, 2009). We have found such charts are increasingly expected by editors and journals that publish high-quality meta-analyses.

Coding. In coding data for cross-cultural meta-analysis, at a minimum it is essential to code the country in which the data was collected, basic sample description, and data collection year, in addition to basic information needed for analysis (e.g., sample size, effect size). For many cultural/country frameworks, this information will be important for mapping the study onto imputed values. Most studies report the country associated with data collection. When this information is not reported, the researcher may choose to use unambiguous author affiliation as a substitute (e.g., all authors are from the United States). If the country is not clear based on author affiliation, primary study authors can be contacted to clarify the country in which data were collected. The description of the sample can also help identify ambiguous samples. For example, data from crowdsourcing websites, such as Mechanical Turk, can come

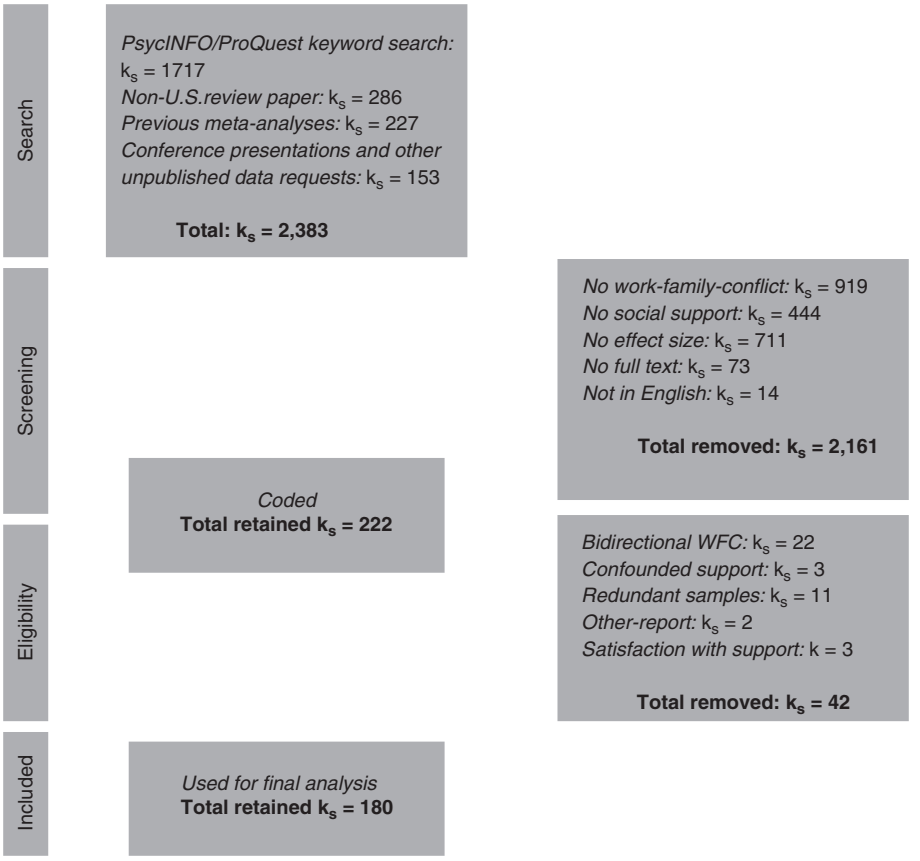

Figure 8.1 *Sample PRISMA flow chart.*

https://doi.org/10.1017/9781108235556.008 Published online by Cambridge University Press

from multiple countries. In such cases, contacting the authors would help to clarify the extent to which the data may or may not be multi-national, and the authors may be able to provide separate effect sizes for single nation subsamples within their data set. If sample information is not verified, researchers should report how often author affiliation is used as a proxy to maintain transparency in methodology.

Data collection year is often omitted from the final manuscript of primary studies. In the event that the date of data collection cannot be determined, a consistent estimate can be used. This estimate might be data-driven, such as the mean or median length of time between data collection and publication for the studies that have year of data collection reported in the extant database. It might also be an a priori rule. For example, the publication date minus two years to account for time for analysis, write-up, and revisions is an option (see for example French et al., 2015).

A clear codebook is essential for identifying relevant and irrelevant information and taking into account possible country differences. A meta-analysis codebook outlines the variables that will be collected, how they will be recorded (e.g., mean income or median income), and any decision rules that are to be used during the coding process. For example, a researcher might be interested in recording average income of each sample. However, currency and the value of that currency differs across countries, making raw values not directly comparable. Before coding, the researcher should think carefully about such culturally invariant raw values and identify a coding scheme that allows for comparable codes. In this case, coding both raw values (income as reported in the study), and then rescaled values (e.g., average income in US dollars) to ensure income is both recorded and recomputed accurately, is recommended. This level of detail also extends to conceptual scales. Construct labels do not always match construct operationalizations, or how the variable is actually measured. For example, we found study authors use different variable labels for the construct of WFC, and constructs that are labeled WFC are in fact at times alternative inter-role constructs, such as work–family balance or work–life conflict. Per our codebook, we only included measures in which 75% of the items were in line with our definition of WFC to ensure our operationalization of WFC were conceptually and operationally clear and aligned with one another. Thinking in advance about what the common construct labeling issues are within your area of meta-analytic focus, and having a way to identify such discrepancies as part of the coding process, can help ensure the same constructs are being recorded across all studies. In most instances, coding both the label used for a construct in the study (e.g., WFC) and the recoded variable based on consistent operationalizations or measurement (e.g., work–family balance) is warranted.

Typically, cross-cultural studies and databases that provide cultural values provide a value for each country. To make imputing simple, effect sizes should be separated by country. In the event that an effect size is confounded with multiple countries and cannot be separated (e.g., 65% of the sample is from Japan and 35% of the sample is from China), a cultural value can be imputed that is weighted to reflect the proportion of the sample from each country.

As a final note, meta-analysis coding can be a draining process. Mistakes are likely to occur for even the most conscientious coder armed with a clear codebook.

This is especially true for complex cross-cultural meta-analyses, which are often large in scale and include a diverse range of operationalizations and methodological approaches. Therefore, it is important that data be coded by multiple coders to ensure any errors are detected and corrected. In addition, double coding ensures any judgment calls that must be made are consistent across multiple independent coders.

Analyzing and interpreting results. Cross-cultural studies often include more than two countries that can be compared. Before meta-analyzing the data, it is important to aggregate effect sizes as necessary to avoid over-counting samples or countries. For example, Spector and colleagues (2007) collected data on WFC and correlates across 36 countries. For our analyses comparing mean WFC in US versus non-US countries (Allen et al., 2015), we first computed thirty-five mean difference effect sizes, one for each mean difference in WFC between the United States and the thirty-five non-US countries. Because each effect size is dependent (all use the same US comparison sample), we then aggregated these effect sizes into one summary effect size using formulas that accounted for dependencies (Borenstein et al., 2009). As a second example, some studies in our meta-analysis on WFC and support reported correlations between three facets of WFC (time, strain, and behavior-based conflict) and one measure of social support (French et al., 2015). In this case, the relationships between each facet of WFC and social support are dependent, as they are computed using the same sample. We combined the three effect sizes using formulas that account for dependencies (Borenstein et al., 2009; Schmidt & Hunter, 2014) to form one composite effect size, representing the overall relationship between WFC and support for that sample. The cultural framework will largely determine when and how samples must be aggregated to avoid over-counting samples. It is critical that authors review effect sizes to ensure no one sample is double-counted. This is especially the case in cross-cultural meta-analysis, where double-counting a particular country may have substantial impact on the results. A full discussion of dependent effect size aggregation is beyond the scope of the current chapter; we direct the interested meta-analyzer to textbook resources for a full discussion of the use and implementation of aggregation formulas (e.g., Borenstein et al., 2009; Schmidt & Hunter, 2014).

Meta-analyses are computed using either fixed- or random-effects models (Borenstein et al., 2009). The fixed-effects model assumes there is a single true population mean effect size and that consequently any deviation from this effect size represents random error. In contrast, the random-effects model assumes there are multiple true population effect sizes, which form a distribution of population effect sizes. When conducting cross-cultural meta-analyses within the work–family field, random-effects model is almost certainly the correct analytic choice. Indeed, the notion of cross-cultural effect size differences itself implies that there is a population of true effect sizes, rather than a single true effect size across all studies.

Regarding the presentation of results, beginning with the most simple and then moving to more complicated analyses can help readers follow and interpret the findings. Starting with random-effects models for the proposed relationships across

all samples can be a good strategy to estimate average effects for the sample of studies. Next, incorporate country or cultural dimension as a categorical or continuous moderator of the effect size of interest. To isolate effects for each potential moderator, we also recommend estimating each moderator one at a time. For this approach, cultural values should be chosen carefully, as testing several cultural moderators on the same relationship may inflate family-wise alpha rate, increasing the chances of finding a significant moderation when it in fact does not exist in the population (i.e., Type I error). If there are several comparisons made and Type I error inflation is a concern, the researcher might consider an alpha correction.

When interpreting results, three pieces of information are important: the mean effect size, the confidence interval associated with the mean effect size, and the credibility interval associated with the mean effect size. In random effect models, the mean effect size represents the average of the distribution of true population effect sizes, providing an estimate of the overall strength/magnitude and direction of a relationship (Aguinis et al., 2011). The confidence interval provides information about the precision of the estimated mean true effect size. A small confidence interval indicates the mean effect size is precisely estimated, while a larger confidence interval indicates the mean effect size may not be accurate. Typically, effects are interpreted as significantly different from zero when the confidence interval does not include zero. The credibility interval indicates the range of true effect sizes that could be found in the population. Thus, a small credibility interval represents a homogeneous true effect size distribution, while a large one indicates there is a wide range of true effect sizes.

In general, cross-cultural differences are distal in nature. Many country-level attributes (e.g., economic prosperity, culture, policy) influence individual experiences through more proximal individually enacted norms and values (e.g., work and family labor hours, work and family centrality). Because country-level attributes are distal, cross-cultural differences in effect sizes are often small and difficult to statistically detect (e.g., French et al., 2015; Litano et al., 2016). Within-country variation may also contribute to wide credibility intervals, indicating more moderators could be examined. These issues underscore the importance of a thorough literature search with sufficient within and between-country studies in order to estimate effects as accurately as possible.

Lessons Learned and Next Steps

We have encountered many challenges conducting and publishing cross-cultural meta-analytic work. We use this section to share a few essential lessons that are particularly pertinent to the aspiring cross-cultural researcher interested in using meta-analytic methods. Specifically, we discuss the importance of casting a wide search net, inclusion of non-English studies, and measurement invariance.

First, it is important to know a meta-analysis is only as good as the included primary studies. Therefore, the quality of meta-analysis depends largely on the selection of primary studies, operationalization of the main variables, coding

https://doi.org/10.1017/9781108235556.008 Published online by Cambridge University Press

plan, and the thoroughness of the methodology. For example, if a meta-analysis includes only published studies, the magnitude of observed correlations may be overestimated due to what is known as the file drawer problem. The file drawer problem refers to the fact that unpublished studies are more likely to include nonsignificant effects than are published studies (e.g., Aguinis et al., 2011). Further, inclusion of unpublished manuscripts is expected for publication in rigorous journal outlets. Exclusion of such studies will need to be justified and, at the very least, explicitly stated as a limitation. As we mentioned in the previous section, we believe adopting multiple strategies to locate primary studies is important and whenever possible, conference submissions, dissertations, unpublished papers, and raw data sets should be screened for inclusion.

Second, all of the work–family meta-analyses listed in Table 8.1 limit primary studies to those written in the English language. Excluding non-English studies is a particularly critical issue when the meta-analysis aims to look at cross-cultural variations. When non-English studies are excluded, the researcher might directly restrict country-level variance and study representativeness. At the same time, including such studies without excellent translation is likely to introduce confounds, such as incorrectly interpreted variables or results. We recommend researchers who are willing to conduct cross-cultural meta-analysis be cognizant of this issue and explicitly mention the inclusion/exclusion of such studies in their manuscripts. Specifically, providing information on the number of studies written in a language other than English, the original language in which they are written, and the reasoning behind their inclusion/exclusion can be helpful. For example, if there are few non-English studies compared to the total number of studies and no new countries would be introduced by including non-English studies, then exclusion of non-English sources might be an acceptable strategy. Working with colleagues who are native or fluent non-English speakers is also an excellent strategy for accessing information in non-English sources.

Third, a truly cross-cultural meta-analysis relies on the assumption that the data are comparable across studies so that effect sizes can be combined (De Leeuw & Hox, 2003). This assumption often suggests that variables of interest are perceived and understood the same way across participants from different countries. However, studies comparing multiple countries sporadically conduct explicit tests of measurement invariance. There is some evidence that the construct of WFC might not mean the same thing for individuals from different cultures. For example, Yang, Chen, Choi, and Zou (2000) found that factor loadings of items on family demand, work demand, and WFC scales were not comparable between participants from the United Sates and China. Therefore, we recommend researchers report which measures display measurement invariance across which countries, as this information has implications for the strength of conclusions drawn from the meta-analysis (Allen et al., 2015). For primary cross-cultural studies, multiple-group confirmatory factor analysis and between groups structural equation modeling can be used to explicitly test for measurement equivalence (Schaffer & Riordan, 2003: see also Chapter 11 of this Handbook, Korabik, & Rhijn).

Future Directions in Cross-Cultural Work–Family Meta-Analysis

Moving forward, there are many potential ways meta-analysis can illuminate cross-cultural work–family relationships. First, meta-analyses have been conducted almost exclusively using correlational methods, collapsing across different types of designs (see Nohe et al., 2015 for an exception). However, we know WFC is dynamic, changing daily (e.g., Shockley & Allen, 2013), across time (e.g., Matthews, Winkel, & Wayne, 2014), and across life stages (e.g., Allen & Finkelstein, 2014). Given cross-cultural differences in the perception of time (e.g., future orientation; House et al., 2004), there may be interesting cultural differences in the timing of WFC episodes, or the relationship between change in WFC and change in correlates over time. Experimental and quasi-experimental studies are also not accounted for in existing work–family meta-analyses. Although existing experimental studies in work–family research are scarce, a meta-analysis that replicates experimental findings across different countries or cultures would be valuable for establishing theoretical and empirical boundary conditions for existing findings.

Second, the existing cross-cultural work uses culture as a theoretical framework for explaining findings, and meta-analytic work directly imputes cultural values associated with a given country (e.g., Shockley et al., 2017; Allen et al., 2015). However, research has shown this approach ignores the substantial cultural variability within a given country and may create problems especially when different regions or subcultures within the same country have different cultural values (Taras, Kirkman, & Steel, 2010). For example, two states of Brazil, São Paulo and Rio Grande do Sul, have been shown to have distinct characteristics in terms of time orientation and attachment to money and possessions (Lenartowicz, Johnson, & White, 2003). These distinct factors may lead to differences in how work and family roles are experienced between these two subcultures. Again, applying a blanket cultural framework by country ignores these potentially important differences. Future cross-cultural meta-analyses might explore subcultures more thoroughly by either meta-analyzing self-reported cultural values, or meta-analyzing subregions or societies. In addition to potential within-country variations, culture also changes over time (Olivas-Lujan, Harzing, & McCoy, 2004) and imputation of cultural values should reflect the timeframe within which participant data are collected. We hope to see more primary cross-cultural studies that assess culture at the individual level by asking participants to report on their own values and/or *perceptions* of the culture.

Third, there is a need to use additional cultural dimensions to understand the work–life interface. Ollier-Malaterre and Foucreault (2017) offer an excellent source on extant typologies and dimensions of culture used in work–life research. In addition to their suggestions, we believe that understudied dimensions such as performance orientation and assertiveness (GLOBE; House et al., 2004), inner versus outer direction (the extent to which individuals in a certain culture seek to control their environment versus choose to live in harmony with their environment), and specificity versus diffusion (Trompeenars, 1993) may have critical implications for understanding work–family experiences. For example, performance orientation, the extent to which cultures value competition and materialism over quality of life

and relationships, may further influence work and family roles. Individuals from high performance orientation cultures might experience more WIF and less work–family balance compared to those from low performance orientation cultures. Similarly, the specificity/diffusion dimension, which reflects the extent to which cultures treat private and work life domains separate (specific) or interdependent (diffuse), can be expected to have direct impact on individuals' segmentation and integration preferences.

Fourth, we have a limited understanding of the positive side of the work–family interface. Only three of our reviewed meta-analyses focused on WFE or positive spillover, and no meta-analyses have been conducted on work–family balance. Both WFE and work–family balance are relatively understudied in comparison to WFC. For example, in cultures where individuals have more autonomy in their work and they feel more empowered (e.g., low power distance cultures versus high power distance cultures), positive effects of WFE are likely to be observed. Cultures that rely on rigid gender-based roles and value earnings and recognitions over job security and freedom might also pose further challenges for work–family balance. Consequently, we call for additional primary cross-cultural research on these constructs so meta-analytic methods may eventually be applied.

Lastly, we propose expanding the scope of work–family meta-analyses beyond interrole phenomena, such as conflict, enrichment, and balance. For example, there is a healthy, interdisciplinary body of research on parent working conditions and child outcomes (Cho & Ciancetta, 2016). A cross-cultural meta-analysis that examines cultural similarities and differences on the relationship between parent working demands and child well-being has implications for not only work–family research, but also for policy makers and organizational decision makers across the globe. Time allocation across work and family domains could also be examined meta-analytically. Currently, primary studies show interesting differences in time allocation between work and family by country (e.g., Craig & Mullan, 2010), and that time allocation matters for well-being (Dahm, Glomb, Manchester, & Leroy, 2015). Future meta-analytic work could focus on cross-cultural differences in time allocation, as well as culture as a moderator for the relationship between time allocation and domain outcomes (e.g., job satisfaction, family satisfaction). Additionally, as primary studies with cross-cultural comparisons increase, we believe that a multilevel approach to meta-analysis (e.g., Van Den Noortgate, & Onghena, 2003) that allows testing interactions between country-level variables (e.g., culture) and individual-level variables (e.g., segmentation/integration preferences, perceived organizational work–family culture) will also contribute significantly to our understanding of global work–family phenomena.

Concluding Thoughts

Meta-analytic approaches offer a comprehensive look at work–family phenomena, and their flexibility in terms of design affords opportunities for multi-

https://doi.org/10.1017/9781108235556.008 Published online by Cambridge University Press

national research that would be difficult, if not impossible, to examine with primary studies alone. However, meta-analysis is not free of challenges, and conducting a theoretically informative and rigorous meta-analytic study takes time and careful thinking. Our chapter outlined existing meta-analyses, suggestions, lessons learned, and future directions for those aspiring to inform cross-cultural work–family study using meta-analysis. We hope this chapter stimulates research along this vein and provides future meta-analysts with valuable guidance.

References

Aguinis, H., Pierce, C. A., Bosco, F. A., Dalton, D. R., & Dalton, C. M. (2011). Debunking myths and urban legends about meta-analysis. *Organizational Research Methods*, *14*, 306–331.

Allen, T. D. (2012). The work–family interface. In S. W. J. Kozlowski (Ed). *The Oxford Handbook of Organizational Psychology* (pp. 1163–1198). New York: Oxford University Press.

Allen, T. D., & Finkelstein, L. M. (2014). Work–family conflict among members of full-time dual-earner couples: An examination of family life stage, gender, and age. *Journal of Occupational Health Psychology*, *19*, 376–384.

Allen, T. D., French, K. A., Dumani, S., & Shockley, K. M. (2015). Meta-analysis of work–family conflict mean differences: Does national context matter?. *Journal of Vocational Behavior*, *90*, 90–100.

Allen, T. D., Herst, D. E., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research. *Journal of Occupational Health Psychology*, *5*, 278.

Allen, T. D., Johnson, R. C., Kiburz, K. M., & Shockley, K. M. (2013). Work–family conflict and flexible work arrangements: Deconstructing flexibility. *Personnel Psychology*, *66*, 345–376.

Allen, T. D., Johnson, R. C., Saboe, K. N., Cho, E., Dumani, S., & Evans, S. (2012). Dispositional variables and work–family conflict: A meta-analysis. *Journal of Vocational Behavior*, *80*, 17–26.

Allen, T. D., Shockley, K. M., & Biga, A. (2010). Work and family in a global context. In K. Lundby (Ed). *Going Global: Practical Applications and Recommendations for HR and OD Professionals in the Global Workplace* (pp. 377–401). San Francisco, CA: Jossey-Bass.

Amstad, F. T., Meier, L. L., Fasel, U., Elfering, A., & Semmer, N. K. (2011). A meta-analysis of work–family conflict and various outcomes with a special emphasis on cross-domain versus matching-domain relations. *Journal of Occupational Health Psychology*, *16*, 151–169.

Aytug, Z. G., Rothstein, H. R., Zhou, W., & Kern, M. C. (2012). Revealed or concealed? Transparency of procedures, decisions, and judgment calls in meta-analyses. *Organizational Research Methods*, *15*, 103–133.

Beins, B. C. (2011). Methodological and conceptual issues in cross-cultural research. In K. D. Keith (Ed.), *Cross-Cultural Psychology* (37–55). West Sussex: Wiley-Blackwell.

Borenstein, M., Hedges, L. V., Higgins, J. P. T., & Rothstein, H. R. (2009). *Introduction to Meta-Analysis*. United Kingdom: John Wiley & Sons, Ltd.

Butts, M. M., Casper, W. J., & Yang, T. S. (2013). How important are work–family support policies? A meta-analytic investigation of their effects on employee outcomes. *Journal of Applied Psychology*, *98*, 1–25.

Byron, K. (2005). A meta-analytic review of work–family conflict and its antecedents. *Journal of Vocational Behavior*, *67*, 169–198.

Casper, W. J., Allen, T. D., & Poelmans, S. A. (2014). International perspectives on work and family: An introduction to the special section. *Applied Psychology*, *63*(1), 1–4.

Cho, E., & Ciancetta, L. (2016). Child outcomes associated with parent work–family experiences. In T.D. Allen & L. T. Eby (Eds.), *The Oxford Handbook of Work And Family* (pp. 151–164). New York: Oxford University Press.

Craig, L., & Mullan, K. (2010). Parenthood, gender and work-family time in the United States, Australia, Italy, France, and Denmark. *Journal of Marriage and Family*, *72*, 1344–1361.

Dahm, P. C., Glomb, T. M., Manchester, C. F., & Leroy, S. (2015). Work–family conflict and self-discrepant time allocation at work. *Journal of Applied Psychology*, *100*, 767–792.

DeGeest, D. S., & Schmidt, F. L. (2011). The impact of research synthesis methods on industrial–organizational psychology: The road from pessimism to optimism about cumulative knowledge. *Research synthesis methods*, *1*(3-4), 185–197.

De Leeuw, E. S., & Hox, J. J. (2003). The use of meta-analysis in cross-national studies. In J. A. Harkness, F. J. R., van de Vijver, & P. P. Mohler (Eds). *Cross-Cultural Survey Methods* (pp. 329–345). New York: Wiley.

Eby, L. T., Casper, W. J., Lockwood, A., Bordeaux, C., & Brinley, A. (2005). Work and family research in IO/OB: Content analysis and review of the literature (1980–2002). *Journal of Vocational Behavior*, *66*(1), 124–197.

Ford, M. T., Heinen, B. A., & Langkamer, K. L. (2007). Work and family satisfaction and conflict: A meta-analysis of cross-domain relations. *Journal of Applied Psychology*, *92*, 57–80.

French, K. A., Dumani, S., Allen, T. D., & Shockley, K. M. (2015). *A Meta-Analysis of Support Across Cultures*. Poster presentation for the 2015 Annual Conference of the Society of Industrial and Organizational Psychology, Philadelphia, PA.

Glass, G. V. (2015). Meta-analysis at middle age: A personal history. *Research Synthesis Methods*, *6*, 221–231.

Hofstede, G. (1980). Culture and organizations. *International Studies of Management & Organization*, *10*, 15–41.

Hoobler, J. M., Hu, J., & Wilson, M. (2010). Do workers who experience conflict between the work and family domains hit a "glass ceiling?": A meta-analytic examination. *Journal of Vocational Behavior*, *77*, 481–494.

House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (Eds.). (2004). *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*. Sage publications.

Kossek, E., & Ozeki, C. (1998). Work–family conflict, policies, and the job–life satisfaction relationship: A review and directions for organizational behavior–human resources research. *Journal of Applied Psychology*, *83*, 139–149.

(1999). Bridging the work–family policy and productivity gap: a literature review. *Community, Work, & Family*, *2*, 7–32.

Kossek, E. E., Pichler, S., Bodner, T., & Hammer, L. B. (2011). Workplace social support and work–family conflict: A meta-analysis clarifying the influence of general and work–family-specific supervisor and organizational support. *Personnel Psychology*, *64*, 289–313.

Lallukka, T., Chandola, T., Roos, E., Cable, N., Sekine, M., Kagamimori, S., Tatsuse, T., Marmot, M., & Lahelma, E. (2010). Work–family conflicts and health behaviors among British, Finnish, and Japanese employees. *International Journal of Behavioral Medicine*, *17*, 134–142.

Lenartowicz, T., Johnson, J. P., & White, C. T. (2003). The neglect of intracountry cultural variation in international management research. *Journal of Business Research*, *56*(12), 999–1008.

Litano, M. L., Major, D. A., Landers, R. N., Streets, V. N., & Bass, B. I. (2016). A meta-analytic investigation of the relationship between leader-member exchange and work–family experiences. *The Leadership Quarterly*. Advance online publication. doi: 10.1016/j.leaqua.2016.06.003

Matthews, R. A., Winkel, D. E., & Wayne, J. H. (2014). A longitudinal examination of role overload and work–family conflict: The mediating role of interdomain transitions. *Journal of Organizational Behavior*, *35*, 72–91.

McNall, L. A., Nicklin, J. M., & Masuda, A. D. (2010). A meta-analytic review of the consequences associated with work–family enrichment. *Journal of Business and Psychology*, *25*, 381–396.

Mesmer-Magnus, J. R., & Viswesvaran, C. (2005). Convergence between measures of work-to-family and family-to-work conflict: A meta-analytic examination. *Journal of Vocational Behavior*, *67*, 215–232.

Mesmer-Magnus, J. R., & Viswesvaran, C. (2006). How family-friendly work environments affect work/family conflict: A meta-analytic examination. *Journal of Labor Research*, *27*, 555–574.

Meyer, J. P., Stanley, D. J., Jackson, T. A., McInnis, K. J., Maltin, E. R., & Sheppard, L. (2012). Affective, normative, and continuance commitment levels across cultures: A meta-analysis. *Journal of Vocational Behavior*, *80*, 225–245.

Michel, J. S., Clark, M. A., & Jaramillo, D. (2011). The role of the Five Factor Model of personality in the perceptions of negative and positive forms of work–nonwork spillover: A meta-analytic review. *Journal of Vocational Behavior*, *79*, 191–203.

Michel, J. S., & Hargis, M. B. (2008). Linking mechanisms of work–family conflict and segmentation. *Journal of Vocational Behavior*, *73*, 509–522.

Michel, J. S., Kotrba, L. M., Mitchelson, J. K., Clark, M. A., & Baltes, B. B. (2010). Antecedents of work–family conflict: A meta-analytic review. *Journal of Organizational Behavior*, *32*, 689–725.

Michel, J. S., Mitchelson, J. K., Kotrba, L. M., LeBreton, J. M., & Baltes, B. B. (2009). A comparative test of work–family conflict models and critical examination of work–family linkages. *Journal of Vocational Behavior*, *74*, 199–218.

Michel, J. S., Mitchelson, J. K., Pichler, S., & Cullen, K. L. (2010). Clarifying relationships among work and family social support, stressors, and work–family conflict. *Journal of Vocational Behavior*, *76*, 91–104.

Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *Annals of Internal Medicine*, *151*, 264–269.

Nohe, C., Meier, L. L., Sonntag, K., & Michel, A. (2015). The chicken or the egg? A meta-analysis of panel studies of the relationship between work–family conflict and strain. *Journal of Applied Psychology*, *100*, 522–536.

O'Rourke, K. (2007). An historical perspective on meta-analysis: Dealing quantitatively with varying study results. *Journal of the Royal Society of Medicine*, 100, 579–582.

Olivas-Luján, M. R., Harzing, A. W., & McCoy, S. (2004). September 11, 2001: Two quasi-experiments on the influence of threats on cultural values and cosmopolitanism. *International Journal of Cross Cultural Management*, *4*, 211–228.

Ollier-Malaterre, A., & Foucreault, A. (2016). Cross-national work–life research: Cultural and structural impacts for individuals and organizations. *Journal of Management*, *43*(1), 111–136.

Ollier-Malaterre, A., Valcour, M., Den Dulk, L., & Kossek, E. E. (2013). Theorizing national context to develop comparative work–life research: A review and research agenda. *European Management Journal*, *31*, 433–447.

Powell, G. N., Francesco, A. M., & Ling, Y. (2009). Toward culture-sensitive theories of the work–family interface. *Journal of Organizational Behavior*, *30*, 597–616.

Shadish, W. R. (2015). Introduction to the special issue on the origins of modern meta-analysis. Research Synthes

Schaffer, B. S., & Riordan, C. M. (2003). A review of cross-cultural methodologies for organizational research: A best-practices approach. *Organizational Research Methods*, *6*, 169–215.

Schmidt, F. L. (2015). History and development of the Schmidt-Hunter meta-analysis methods. *Research Synthesis Methods*, *6*, 232–239.

Schmidt, F. L., & Hunter, J. E. (2014). *Methods of Meta-Analysis: Correcting Error and Bias In Research Findings*. Sage publications.

Shockley, K. M., & Allen, T. D. (2013). Episodic work–family conflict, cardiovascular indicators, and social support: An experience sampling approach. *Journal of Occupational Health Psychology*, *18*, 262–275.

Shockley, K.M., Douek, J., Smith, C.R., Yu, P.P., Dumani, S., & French, K.A. (2017). Cross-cultural work and family research: A review of the literature. *Journal of Vocational Behavior*. *101*, 1–20.

Shockley, K. M., & Singla, N. (2011). Reconsidering work–family interactions and satisfaction: A meta-analysis. *Journal of Management*, *37*, 861–886.

Spector, P. E., Allen, T. D., Poelmans, S. A., Lapierre, L. M., Cooper, C. L., Michael, O. D., . . . & Brough, P. (2007). Cross-national differences in relationships of work demands, job satisfaction, and turnover intentions with work–family conflict. *Personnel Psychology*, *60*, 805–835.

Taras, V., Kirkman, B. L., & Steel, P. (2010). Examining the impact of culture's consequences: A three-decade, multilevel, meta-analytic review of Hofstede's cultural value dimensions. *Journal of Applied Psychology*, *95*, 405–439.

Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, *96*, 506–520.

Trompenaars, F. (1993). Riding the Waves of Culture: Understanding Diversity in International Business. *Irwin, Chicago*.

Van Den Noortgate, W., & Onghena, P. (2003). Multilevel meta-analysis: A comparison with traditional meta-analytical procedures. *Educational and Psychological Measurement*, *63*(5), 765–790.

Yang, N., Chen, C. C., Choi, J., & Zou, Y. (2000). Sources of work-family conflict: a Sino-US comparison of the effects of work and family demands. *Academy of Management Journal*, *43*, 113–123.