3

Research Methods for Studying Variation and Fluidity in Divorce

Our goal in this chapter is to provide an overview of research methods that are particularly suited to studying variability and fluidity in experiences, reactions, and adjustment to the process of divorce. We do not provide an exhaustive review of all research methods that might be appropriate for the study of divorce because there are numerous research methods textbooks and even some books focused on divorce (e.g., Emery, 1999) that provide such an overview. Rather, we tailor our discussion of methods to issues that are especially salient for our focus on variability and fluidity.

We begin this chapter by discussing the characteristics, advantages, and limitations of research methods that have been used to study divorce. Then, building on the limitations identified, we review some existing methods that can be used to study variation and fluidity in divorce experiences, as well as factors related to this variation. We suggest that studies need to be designed to ask new questions related to variation and fluidity, and we conclude with some implications for future research, including greater use of some already existing methodological approaches and the development of new methods and statistical procedures.

CHARACTERISTICS, ADVANTAGES, AND LIMITATIONS OF PREVAILING RESEARCH METHODS

Barber and Demo (2006) identified four distinct foci, or tiers, in research on children's adjustment to divorce. The first tier, which is characterized by research that compares the adjustment of children in divorced families with those in first-marriage families, comprises a large proportion of the literature. The next three tiers of research have been more sensitive to variations in and the fluidity of responses to divorce, but comprise a smaller proportion of the literature. The second tier of research examines processes that may explain why some children do well following divorce, while others do not. The third tier involves the study of variability within divorced families and over time. Finally, the fourth tier capitalizes on the knowledge and insights gained from the other three tiers of research and focuses on developing and testing interventions to improve the lives of children and parents experiencing a divorce.

Tier 1 research designs. The primary research design that has been used in Tier 1 research is a comparative group design in which levels of various dimensions of adjustment for children of divorce have been compared with those for children from first-marriage families. Many of these studies (e.g., Amato, Hetherington) were seminal in their impact and played a critical role in the development of our knowledge base regarding the effects that divorce has on family members. There is little question that these studies provided valuable descriptive information on reactions to divorce.

There are several noteworthy aspects of these studies that use a comparative research design. They can be framed in terms of limitations in the inferences that can be generated from their findings:

- They compare the various group means on children's adjustment dimensions. Thus, such studies test whether children, on average, do better or worse in some family structure groups than others.
- The very foundation of these group comparisons is nomothetic in the sense that the question of interest involves comparisons of groups in terms of the typical child in the respective groups. Thus, such studies basically indicate whether, for example, the typical child (defined by the mean score for the group) in a divorced family

has similar or different levels of self-esteem than does the typical child in a first-marriage family.

- Tier 1 research does not take advantage of the information provided by measures of variability on the various adjustment measures. Indeed, statistical procedures for comparing groups on a particular variable depend on the extent of variability within each group, but such information often is buried within the analyses or presented as a parenthesized column in a table providing descriptive statistics on the various measures.
- Tier 1 research compares groups all things being equal. In other words, when two groups are compared simply in terms of their mean scores on particular variables, the comparison does not take into account a multitude of other possible ways that the groups may differ from each other. In the divorce versus first-marriage comparison discussed above, no variables other than the independent variable (divorce vs. first marriage) and the dependent variable (e.g., child adjustment) are taken into account. This is a possible concern because the two groups may differ in meaningful ways other than on the dependent variables. In the divorce example, it is quite likely that the divorced sample has fewer socioeconomic resources than the first-marriage sample. And socioeconomic status has been shown to be strongly related to many dimensions of child adjustment, particularly academic performance. Thus, any simple comparison between divorced and first-marriage samples will not only be comparing on the basis of marital-family status (divorced vs. first marriage), but also between higher and lower socioeconomic statuses.

The astute reader may note at this point that group comparisons can be conducted controlling for some of these potentially confounding variables. Indeed, it would be preferable to compare groups after controlling for socioeconomic status and any other possible differences between groups to yield the most precise comparison possible between divorced and first-married groups. However, the use of covariates has limitations, including that there needs to be sufficient variability in the sample on the relevant covariates. If, for example, there are not a sufficient number of low socioeconomic status families in the first-marriage group or high socioeconomic status families in the divorce group, using socioeconomic status as a covariate will have minimal impact.

An additional concern with the use of covariates is that they create a pure comparison between groups, but these pure groups may not exist

in the population. For example, if there were sufficient variability in socioeconomic status, we could compare divorced and first-marriage groups, controlling for socioeconomic status. Such a comparison provides a pure comparison between the two groups in the sense that, because the groups are equated on socioeconomic status, any differences between the means of the groups supposedly cannot be due to socioeconomic status. However, in actuality, divorced families have substantially lower socioeconomic resources than do first-marriage families. Having fewer socioeconomic resources may be an integral aspect of the divorce experience, and therefore, to control for this variable may create a divorced group that is quite different than it is in reality. Thus, the pure comparison has some scientific appeal, but creates a controlled contrast between groups that do not exist in reality.

An additional concern with Tier 1 designs is that they may confound family structure effects with family transitional effects. Typical family structure studies often consider family composition at a single point in time, such as first marriage, divorced-single parent, stepfamily, and sometimes never married groups. The problem, however, is that cross-sectional snapshot comparisons typically do not take into account transitions that have already taken place (e.g., previous marriages, divorces, or cohabiting relationships) or transitions that will occur in the future.

For example, participants in the divorced/single-parent group may include individuals with very different family experiences, varying on such dimensions as the number of previous divorces or the frequency of cohabiting relationships, whereas those in the stepfamily group may differ in terms of such variables as the number of previous marriages. Aggregating individuals with potentially widely differing family and relationship experiences into a single family structure group may mask potential differences that might have been found had these family transitions been controlled for.

Tier 2 research designs. Tier 2 studies have attempted to identify family processes that mediate or account for—in a statistical sense—the effects of family structure on children and adolescents. In essence, what these studies have attempted to do is to identify mechanisms within the family that may explain the differences in adjustment among children in different family structures. For example, numerous studies (see Barber & Demo, 2006) have found that reductions in financial resources available to the family partly explain why children in divorced families fare more poorly on several adjustment dimensions than do children in first-marriage families.

How do Tier 2 studies allow us to conclude that certain family processes explain why there are family structure effects on children? Typically, such

studies begin by establishing that there are family structure effects on a particular adjustment domain. Then, the researchers assess whether the proposed family process variable is related to both the family structure that the children live in and the adjustment dimension of interest. If the family process variable is, indeed, related to both family structure and the outcome variable, it is possible to test whether the family process variable mediates the family structure–child outcome relationship. In this final step, the researcher assesses whether the relationship between family structure and child outcome is no longer statistically significant when the family process variable is considered. If so, then it can be inferred that that particular family process variable mediates the link between family structure and children's adjustment on that particular domain (Baron & Kenny, 1986). Parenthetically, we note that there are a number of statistical approaches that can test for mediating effects, including, but not limited to, analysis of covariance, hierarchical multiple regression, structural equation modeling, and hierarchical linear modeling.

The logic underlying the search for family process mediators is that if the family structure–child outcome link is no longer statistically present when one considers (or "controls for," in statistical terms) the mediating variable, then that may mean that it is *a* variable (not *the* variable; see below) that explains why the family structure–child outcome link exists. In other words, if we expanded our view to include the mediating variable, there would no longer be family structure differences in children's adjustment on that particular variable.

Several examples may help to illustrate this point. McLanahan and Sandefur (1994) studied whether family processes, particularly parenting behaviors and beliefs, mediated the relations between family structure (single parent vs. first-marriage families) and children's outcomes. They found that parental involvement, supervision, and aspirations reduced the differences between children in single-parent and first-marriage families; in particular, parenting behaviors were responsible for 50% of the differences between the two groups in school drop-out rates and 20% of the differences in early childbearing rates. Thus, McLanahan and Sandefur showed that one plausible, and empirically supported, explanation for why these two groups of children differ in drop-out and childbearing rates is that the parents in first-marriage families are more involved, supervise their children more closely, and have higher aspirations for their children than do single parents. In this case, we can state that these parenting processes partially mediate the relation between family structure and children's outcomes because the family structure differences still

remained significant after considering the mediating variables, but the differences were considerably smaller.

As a second example, consider a study conducted by Kurdek, Fine, and Sinclair (1994). These researchers asked whether parenting behaviors mediate the relation between family structure and young adolescents' grades, physical health, drug use, self-esteem, and self-mastery. Interestingly, unlike the McLanahan and Sandefur study, Kurdek et al. found that there were still family structure differences of similar magnitude on these adjustment dimensions (with young adolescents in first-marriage families faring better than those in other family structures) even after considering the influence of how permissive, authoritative, and authoritarian the parents were. In other words, even after taking parenting into account, young adolescents in first-marriage families still functioned better than did those in other family structures. It is noteworthy that the parenting variables had a stronger impact on adolescent adjustment than did family structure, but both sets of variables made independent and reliable contributions to adolescent adjustment, meaning that the effects of parenting on adolescents were stronger in magnitude than was the effect of family structure.

As a final example, let us revisit financial resources as a mediating variable. Emery (1999) demonstrated that the magnitude of the difference in the adjustment of children in first-marriage families and those in single-parent families was reduced substantially, and sometimes to nonsignificant levels, after considering family income. In academic outcomes, for example, the advantage of children in first-marriage families was reduced by 50%. This suggests that a decrease in economic resources may be one of the mechanisms that causes children from divorced families to fare somewhat more poorly in school than their counterparts in first-marriage families.

Strengths of these designs include that they look beyond the surface toward the actual mechanisms that account for why family structure is related to children's outcomes. By itself, family structure per se cannot directly affect children's development; it can only do so via some actual day-to-day mechanism, such as family processes or family resources. For example, the legal event of divorce, by itself, cannot be causally responsible for child outcomes. However, it can be indirectly responsible, by affecting family relevant processes (like those described above) that, in turn, affect children. Thus, Tier 2 designs represent admirable attempts to identify and test these possible mechanisms.

Weaknesses of Tier 2 studies include, first, that the designs do not literally allow one to infer that the mediating variable causes there to be a link

between family structure and the child outcome variable. The designs only test whether the mediating variable may explain this link. If the mediating mechanism is not statistically supported, then the family resource or family process variable could not explain the family structure–child outcome link, unless there is some methodological flaw (e.g., a weak measure that does not assess the construct that it purports to) that has led to the lack of a significant mediating effect. If the mediating mechanism is supported, that does not allow one to conclusively prove that that particular variable causes the observed link, but rather such a finding indicates that the data are consistent with that explanation. There may be other plausible explanations that could also be identified in other studies.

This limitation is why it was important that we indicated above that the analysis seeks to identify *a* mediator as opposed to *the* mediator. Mediational analyses seek to find variables that may account for why there are family structure differences in some child, parent, or family outcomes. The search for mediators is based on theory or previous research findings. However, the finding that a particular variable serves as a mediator does not mean that that variable and only that variable explains why there are family structure differences in the outcomes of interest. The findings indicate that the data are consistent with the notion that the variable of interest mediates the link between family structure and the outcomes, but the findings do not tell us that the chosen mediator is the only one that could do so. Other analyses may very well establish that additional variables, perhaps many of them, could also mediate the family structure–outcome relation. Thus, mediational analyses always need to be interpreted with an understanding that the results support an explanation, but that there are a number of other explanations that also could be supported. For example, the finding that a loss of financial resources mediates the relation between family structure and children's academic outcomes does not rule out the possibility that there are also other variables, such as unresponsive parenting and lingering postdisruption parental conflict, that could also serve as mediators. In fact, subsequent analyses could establish that other variables serve as even more potent mediators than the ones tested in an earlier study. Consequently, the search for causal explanations of divorce effects requires repeated and frequent study of the topic over an extended period of time, with a range of methods, samples, data collection approaches, proposed mediators, and measures.

In fact, this caveat regarding causal inference is an important issue to keep in mind with any model-testing statistical approach. Whether the analytic strategy is multiple regression, structural equation modeling, or

hierarchical linear modeling, the ability to draw causal inferences from the results of a study (e.g., a decline in financial resources explains why divorce is associated with poorer child outcomes), which is also known as *internal validity,* depends on the research design, not on the manner in which the data are analyzed. In terms of establishing cause-and-effect relations, the strongest design is an experimental one, which, unfortunately, is typically impossible to implement in the study of naturally occurring family events such as divorce. Longitudinal designs that enable one to predict later outcomes from earlier events are stronger in this sense than are cross-sectional designs that only gather data at a single point in time.

A second weakness of Tier 2 research is that it is still based on group aggregates or composites in the sense that the results test whether, in general, a particular family process or family resource variable mediates the link between family structure and children's outcomes for the sample as a whole. In other words, the results need to be interpreted in terms of a typical or average child, and not necessarily for each and every child in the sample. For some children, for example, a decrease in family income may not be related to their postdisruption outcomes, even though the results for the sample as a whole suggest that family income is a significant mediator. Thus, assessing variability among children (or among parents or families, depending on the population of interest) is peripheral to the focus on identifying group trends. In fairness, the use of growth curve analyses (a version of hierarchical linear modeling that is discussed in more detail below) can examine individual differences in the rate and nature of change over time, but very few studies in the divorce area have used these advanced analytic strategies, which require a minimum of three data collection points.

Tier 3 research designs. Tier 3 research is inspired by the observation that some children fare quite well following divorce, whereas other children experience behavioral, academic, or psychological problems. Thus, the third tier of divorce research focuses on the extensive variability that exists in divorced families and the fluidity characterizing family members' adjustment over time. Rather than examining how children and parents from divorced families on average differ from other family structure groups, many of these studies have examined only divorced families (i.e., within-group designs) and have made increasing use of longitudinal designs that assess fluidity by testing participants on at least two occasions over time.

Barber and Demo (2006) indicated that not only do Tier 3 research designs examine the wide range in children's (and parents') levels of adjustment

following divorce and how children's (and parents') well-being changes over time from preseparation to many years following separation and divorce, but also they address two other key issues. First, such studies have identified preseparation child, parent, and family factors that predict subsequent postdisruption adjustment. Note that the pursuit of family-related predictors of later postdisruption outcomes would utilize a sample of only divorced individuals (a within-group analysis) and that one would not need to include comparison groups of individuals from other family structures. These studies are perhaps the most direct way to empirically address the issue of determining which children, parents, and families do well following divorce and which ones do not.

Second, some Tier 3 studies have examined how children and adults adjust when they experience multiple family structure transitions. These studies address an often overlooked observation: Many children and adults experience more than one divorce (or other types of parenting and family transitions), and the effects of divorce may vary depending on the frequency of such transitions. The general pattern of findings from the few studies in this area (see Chapter 9) is that children and adults who experience more than one major transition (such as multiple divorces and remarriages) are much more likely to have adjustment problems than are children and adults who have experienced fewer (or no) family structure transitions.

Why are studies of the consequences of multiple parenting transitions categorized as Tier 3 studies? They fall within this category because they examine within-group differences (i.e., subgroups of children and adults within divorced families) in postdisruption outcomes and some of these studies have attempted to identify factors that predict differences in adjustment trajectories over time among individuals in these subgroups of divorced families. For example, studies have compared how children who have experienced one parenting transition (i.e., the divorce of their parents) fare over time in comparison with those who have experienced more than one parenting transition (e.g., a parental divorce and a subsequent parental remarriage). It should be noted that multiple parenting transitions studies do not maximally take advantage of variability within the different parenting transition groups, as they have tended to compare the average or typical levels of adjustment across the various transition groups and how these groups, in aggregate, differ in their adjustment trajectories over time.

Of the four tiers of research, the third tier is most compatible with the thrust of this book. Variability, in at least some studies, is the primary

focus of such investigations, rather than mean differences between groups. Further, the longitudinal Tier 3 studies have obviously focused explicitly on variability in adjustment-related change over time. In addition, the focus of many of these studies has been on comparing different subgroups within the divorced population, which adds to our understanding of which family members fare better than others following divorce.

A final point of note regarding Tier 3 studies is that not all of them have been quantitative. There is a relatively small group of qualitative studies that have involved in-depth analyses of the experiences of family members who have undergone divorce and how family members interpret and frame their divorce-related experiences. For example, Harvey and Fine (2004) obtained detailed written descriptions of college students' memories of their predivorce and postdivorce experiences and, based on a qualitative thematic analysis of the more than 900 narratives they gathered, identified four general categories that were approximately equal in prominence: 1) those that emphasized negative themes (labeled as *despair*); 2) those that emphasized positive themes (labeled as *hope*); 3) those that emphasized missing a parent, particularly a father (labeled as *becoming fatherless*); and 4) those that emphasized family dysfunction and adaptation (labeled as *family chaos and resilience*). Many of the narratives could have been placed in more than one category, and most narratives described, at different times, both positive and negative experiences. These narratives provided support for the notions that there is extensive variability in students' divorce-related experiences and that there is considerable fluidity in how their reactions change over time.

Tier 4 research designs. Finally, Tier 4 research takes advantage of the gains from the first three tiers of research to develop and test interventions designed to facilitate the adjustment of family members going through divorce. The most common type of Tier 4 research is to use a particular set of findings and apply them to the development of specific interventions. A number of divorce-related interventions have been developed based on this general model: First, identify factors that are related to both positive and negative divorce-relevant outcomes, and, second, develop interventions designed to modify the frequency of these factors in growth-inducing ways. As one illustration, Tier 2 research has consistently shown that children adapt more effectively when their parents have minimal conflict after the divorce (see Barber & Demo, 2006). Thus, educational programs, including parent education classes for divorcing parents (Blaisure & Geasler, 2006), have been developed with the guiding principle that parents should minimize the frequency and intensity of their disputes, particularly in front of the children.

However, there is another way that Tier 4 studies can be conceptualized—a way that is far less frequent than the typical pattern noted earlier. Barber and Demo (2006) described how one can attempt to experimentally (through random assignment to groups) modify either individual factors (e.g., psychological or coping resources) or interpersonal factors (family processes) via structured interventions and then evaluate whether these interventions result in improved child, parent, or family adjustment. The logic is that if experimentally generated changes in some divorce-relevant factors lead to enhanced adjustment, then this provides further evidence supporting the notion that those particular factors are causally linked to improved divorce-related adjustment.

Some of the very few studies that can be placed into this category comprise natural experiments in the sense that they take advantage of programs or interventions that are already taking place in family members' communities. For example, parent education for divorcing parents has been mandated in a number of jurisdictions across the United States, and one could compare the adjustment of children and parents who have participated in such programs (because they are mandated to do so) with the adjustment of those who have not participated (because they are not mandated to do so or because such programs are not available to them). While these studies are not experiments in the strictest sense because participants were not randomly assigned to the parent education versus no parent education groups, these quasi-experiments (i.e., comparisons of two groups that may be different from each other in unknown ways) can yield valuable information about not only the intervention itself, but also the processes that are at the heart of the intervention (e.g., keeping children out of the middle of their parents' disputes).

Interventions are most effective when they are sensitive to individual differences among those who participate in the intervention. In other words, good clinical and educational practice requires that intervention activities be tailored to the particular circumstances of the participants. This is most readily apparent in clinical practice when a thorough assessment of the client's presenting problems leads to a treatment plan that is tailored to the individual's unique characteristics and circumstances. However, even educational interventions, such as classroom teaching and community group instruction (e.g., parenting education classes for divorcing parents) require some flexibility and modification to the particular needs and circumstances of the target group. The approaches that one would use to teach a group of high school juniors would be quite different from those that one would utilize

to teach a group of parents from the community who have just filed for divorce.

Thus, because they need to have a sense of how their clients are functioning relative to others in similar circumstances, clinicians and educators are (or should be) particularly interested in information on the variability and fluidity in how children, parents, and families experience and respond to divorce. For example, a psychotherapist may be able to provide a more effective treatment plan for a divorcing parent if the therapist knows that the parent's depression score on a standardized depression measure is 2 standard deviations above the population mean and that the individual's score falls within the clinical range for serious depression.

EXISTING METHODS APPROPRIATE FOR STUDYING VARIABILITY IN DIVORCE-RELATED EXPERIENCES

At least three aspects of research methodology are relevant for fulfilling our call for greater attention to variability in divorce-related experiences: a) sampling considerations, b) data collection strategies, and c) data analysis. Below we describe the manner in which variability has been addressed in each aspect.

Sampling. Sampling refers to how one recruits and acquires participants for research studies. From a quantitative perspective, the goal of sampling is to acquire a representative sample that would allow one to generalize the findings to the population of interest (also known as *external validity*). The key distinction in quantitative approaches to sampling is between probability (e.g., random) and nonprobability (e.g., convenience) sampling. Random sampling allows one to generalize the results to the population from which participants were randomly selected, whereas nonprobability sampling can provide useful information, but makes it difficult to determine the population to which one can generalize the findings. In traditional approaches to sampling, there needs to be some variability in the characteristics of the sample so that there is some variability in their scores on the independent, dependent, and other variables used in the study. Greater variability increases the power of the analyses to detect statistically significant effects. For example, in a study examining how postdisruption parental conflict is

related to the social functioning of children from divorced families, one would want to ensure sufficient variability in the social functioning (and the postdisruption parental conflict) scores so that significant relations could be found—if they exist in the population—between social functioning and postdisruption conflict. However, quantitative researchers do not typically feel that they need to deliberately seek out variability on specific study variables in their sampling strategies because their goal is to randomly obtain a sample that is representative of the larger population of interest. The assumption is that random sampling, or other variants of probability approaches, will typically generate sufficient levels of variability—an assumption that is usually warranted if sample sizes are sufficiently large.

Qualitatively, many sampling approaches use what are known as maximum variation strategies (Miles & Huberman, 1994), in which the researcher actively searches for extreme cases that do not fit the patterns and themes already developed. The notion is that one obtains a richer and more authentic picture or story of the participants' experiences if one actively seeks out diverse cases. For example, if the objective of the research was to obtain a rich portrayal of children's experiences when they are placed in the middle of their parents' disputes, one might actively recruit children from a range of ages, socioeconomic backgrounds, races-ethnicities, and so forth. Of course, the risk in maximum variation sampling is that the diversity in the sample will lead to such tremendous variation in responses that it is not possible to identify a coherent and integrative story describing the participants' experiences. Nevertheless, most qualitative researchers believe that the benefits that can accrue from maximum variation sampling typically far outweigh this risk.

Maximum variation also refers to deliberate attempts, in the midst of data collection and analysis, to identify and recruit cases that do not fit the patterns and themes already identified. If a prevailing theme in a study of nonresidential fathers is that they become progressively more distant from their children following the divorce, one might deliberately recruit nonresidential fathers who have become more involved with their children following divorce. The voices of these men may shed additional light on the experiences, desires, pre- and postdisruption trajectories, and behaviors of nonresidential fathers.

Data collection strategies. Data collection strategies are methods for gathering data from study participants. Quantitatively, typical approaches to gathering data in studies of divorce have included self-report questionnaires,

behavioral observation, and structured interviews. All of these approaches yield numeric scores and, thus, are appropriate for a systematic examination of variability. Some newer data collection approaches include the use of diaries in which individuals are prompted (via the use of an electronic device or a personal computer) on a periodic basis to contemporaneously record their thoughts, feelings, and behaviors regarding a particular experience or situation. These approaches have the advantage of gathering data at the moment in which the thoughts, feelings, and behaviors occur, as opposed to retrospectively as is the case with more traditional methods such as self-report questionnaires. We are encouraged by the use of these new techniques and technologies because they will provide more reliable and valid information that will allow us to develop a more accurate and comprehensive understanding of variability in divorce-related experiences.

Qualitatively, nonnumeric data are collected via such strategies as interviews, observation, case studies, ethnographic approaches in which the researcher becomes either a member of or involved with the group being studied, and the collection of textual material from such sources as books, magazines, newspapers, television broadcasts, and so forth. A key underlying strategy of qualitative approaches is to work very hard to obtain the voices of the participants in addition to, or even instead of, the researchers' perspectives and impressions. Qualitative research considers the participants to be the experts on their own lives, and these approaches typically find a mechanism to tap into the unique way that each individual makes sense of and gives meaning to her or his experiences. Direct quotes from participants are typically used liberally to anchor the presentation of the data analytic results. We believe that the emphasis on participants' voices is an essential component of research on divorce that complements quantitative findings and enriches our understanding of divorce. Interview data and direct quotes from participants can help researchers make sense of the variation noted in quantitative research. In this sense, quantitative and qualitative approaches can be complementary and their integration has the potential to provide a richer understanding than can be achieved from either one alone.

Data analytic approaches. The most basic strategy for addressing variability with quantitative data is to ensure that measures of variability, such as standard deviations and variances, are computed and reported. In addition, one can statistically compare the levels of variability within two or more groups with an *F* test. Thus, one can determine whether one group has statistically greater variability in scores than another group,

should that be of theoretical or empirical interest. For example, one could compare the variances (via squaring the standard deviations in each group) in children's academic competence scores between those who have experienced divorce and those who have not. To be sensitive to the importance of variability, most journals require that standard deviations, or some other indicator of dispersion, be reported along with means and other descriptive statistics.

As discussed further in Chapter 10, quantitative researchers can test whether certain variables are related to variability in a dependent variable. When one collects data at a single point in time, it needs to be noted that one cannot compute a variability score for a given individual (although such a score can be computed for how an individual's scores change over time, which we are referring to as fluidity). However, variability can characterize a group of scores. Thus, one could divide the sample into two or more groups depending on how much variability there is on the dependent variable (e.g., low, medium, and high variability groups). Then, one could compare scores on another variable—a predictor or independent variable—across groups to determine if the scores on the predictor variable differ significantly for the low, medium, and high variability groups. We could, for example, see if there is greater variability in children's behavior problem scores for those whose parents have been divorced more than once compared with those whose parents have divorced only once.

In terms of fluidity, there are a number of analytic approaches that assess changes over time. For example, *t* tests for a single sample and repeated-measures ANOVAs/MANOVAs (analyses of variance/multivariate analyses of variance) test whether there are statistically significant changes over time in a group's mean scores on one or a number of dependent variables. Regression analyses can determine whether a predictor variable assessed at a particular point in time (Time 1) is related to changes in scores on a dependent variable measured at both the initial and later time points (Time 1 and Time 2). In addition, as described in more detail below, some newer statistical approaches offer exciting opportunities to assess individual differences in rates of change over time and predictors of these different trajectories.

Qualitatively, most schools of data analysis involve some variant of verification procedures (Creswell, 1994; Miles & Huberman, 1994). Verification procedures are attempts to ensure that one's patterns and themes are consistent with (or authentic with) the experiences and the voices of the participants in the study. There are a large number of verification procedures, and several involve a purposeful search for cases that vary (sometimes extensively) from the typical cases. For

example, *extreme cases* or *negative cases* are those that do not seem to fit the prevailing codes, patterns, or themes that have been generated. The challenge is to identify why the extreme or negative cases differ from the remaining ones and to determine whether they may necessitate a revision of one's thinking regarding codes, patterns, or themes (see George & Bennett, 2005). Some extreme or negative cases can be understood in such a way that there does not need to be a modification in the previously existing analytic structure, whereas others may suggest that the results need to be reconceptualized. For example, a particular divorced mother may supervise and monitor her children much more closely following the divorce than she did before the divorce; she may be an extreme or negative case in the sense that the prevailing pattern might be that parents supervise less closely following the divorce. How might this case help enrich researchers' understanding of the prevailing pattern? One possibility is that this particular mother believes that she must monitor her children more closely because she believes that the children's father is a particularly bad influence on them and that she has to compensate for his negative involvement by being more vigilant herself. Without an analysis of this particular divorced mother, our understanding would not be as authentic and rich.

Thus, extreme cases, unlike their counterpart in quantitative work (i.e., outliers), are not to be feared or avoided; rather, they are to be embraced because they enrich the work and bring new insights into the organizational structure of the data analysis. Thus, one way of conceptualizing the qualitative use of extreme cases is that there is an appreciation of variability among individuals in their experiences and that this variability is a catalyst for more refined and accurate attempts to understand their experience.

RECENT INNOVATIONS FOR STUDYING VARIABILITY AND FLUIDITY

Quantitative approaches. In addition to the statistical approaches discussed earlier, there are a few recent innovations that are particularly useful for examining variability and fluidity. Each will be briefly described, and an example of each approach will be provided. The first, *structural equation modeling (SEM)*, is a model-testing approach that has several advantages that make it a preferred strategy over regression analysis in certain cases.

One advantage is that it allows for the creation of latent variables, which are theoretically derived constructs, consisting of combinations of a number of manifest or observed variables. For example, a latent construct of adjustment could be constructed from observed measures of school grades, social competence, and behavior problems. SEM empirically tests whether the manifest variables (in this case, school grades, social competence, and behavior problems) do, indeed, consistently tap the single latent construct (in this case, adjustment), which is referred to as the *measurement model*. Specifically, in this case, tapping a single latent construct means that school grades, social competence, and behavior problems are highly intercorrelated, most likely that high school grades would be related to high levels of social competence, and that both high school grades and high levels of social competence would be related to exhibiting few behavior problems.

A second, and related, advantage of SEM is that it takes into account measurement error, or the extent to which there is a lack of reliability in measurement, in scores on all variables included in the model. Regression analysis assumes that all variables are measured with perfect reliability, or with no measurement error. However, because of the inclusion of multiple manifest variables to assess a single latent construct, a lack of perfect reliability can be considered in the analyses, which allows for more accurate, realistic, and useful results. Thus, SEM is useful because it more sensitively takes into account the reliability of the measures and because it allows for the generation of theoretically derived and empirically validated latent constructs that permit the testing of specific research hypotheses.

Using SEM with data from a 17-year longitudinal study, Amato and Afifi (2006) examined a model that posited that parental divorce and marital conflict lead young adults to have stronger feelings of being caught between their parents, which, in turn, lead to lower subjective well-being and poorer quality parent–child relationships. The researchers found that parental divorce did not lead to stronger feelings of being caught between parents, but that marital conflict did. Further, feeling caught between parents was significantly related to these young adults' reporting that they have poorer quality relations with mothers and fathers and lower levels of subjective well-being. These results suggest that marital discord has a stronger effect on young adults' feelings of being caught between their parents than does divorce. The researchers' use of SEM allowed them to use multiple indicators (manifest variables) of parent–child relationship quality and subjective well-being, to take measurement error into account, and to empirically test whether the data were consistent

with the proposed theoretical model. It is important to note that these data are supportive of the interpretations made above, but that the results do not rule out the possibility that there could be other plausible causal paths that also fit the data well.

A second recent statistical innovation is *hierarchical linear modeling (HLM)*. HLM allows researchers to take advantage of nested data. For example, suppose researchers are investigating the relation between students' perceptions of how much conflict there is in their families and their grades in school. They choose to study all 100 of the fourth graders in a school with four fourth-grade classrooms (25 students per classroom). The researchers could study all 100 students as a unit, but technically, this method violates an important assumption in the use of most parametric statistical methods—independence of observations. The concern is that the 25 students within each classroom interact with each other for many hours each and every school day; thus, their observations are not independent of each other. It is quite possible, and perhaps even quite likely, that there will be some similarities in how children respond to the various questionnaires or surveys because they interact together so often. HLM takes this into account by providing an estimate of the strength of the relation between perceived family conflict and school grades after controlling for the classroom that the children are in. In addition, HLM determines if there is a significant classroom effect on school grades and even more important, whether the relation between perceived family conflict and school grades differs depending on which classroom the student is in (i.e., whether classroom moderates the relation between perceived family conflict and school grades).

Hoffmann (2002) examined the relationship between family structure and adolescent drug usage. Although it has been established for some time that children from single-parent families engage in more acting-out behaviors, such as drug usage, than do children in first-marriage families, Hoffmann used hierarchical linear modeling to investigate the influence of community context on this relation. In particular, Hoffmann assessed whether adolescent drug use was affected by a number of community-level variables, such as the percentage of women-headed households, the unemployment rate, and the percentage of families below the poverty level, and then examined whether these community variables influenced the relation between family structure and drug usage. Because data from adolescents and families in a particular context are not independent of each other, it is important from a statistical standpoint to take this nesting into account. HLM allows the investigator to do exactly this, by estimating the community effects on drug usage, as well as considering whether community effects moderate the links between family structure

and adolescent drug usage. In this study, Hoffmann found that drug usage was less frequent when the male unemployment rate was high and when the percentage of families in poverty was high. However, adolescents from non-first-marriage families still used drugs more frequently than adolescents in first-marriage families, even after taking community characteristics into account. This suggests that the effects of family structure on adolescent drug usage are independent of the communitywide effects on drug usage.

HLM is especially well suited to researchers examining variation in experiences with and reactions to divorce because it takes into account how individuals react in similar and different environmental contexts, whether such contexts include the community in which one lives, the school one attends, or some other contextual unit. Previous research, often using multiple regression analyses or path analyses, has often lumped together participants from similar contexts, which (perhaps incorrectly) assumes that the data from such individuals are independent of each other.

A particularly relevant variant of HLM is *growth curve analysis.* Growth curve analysis depends on longitudinal data with at least three observations per participant over time. In a typical first step, a growth trajectory on the dependent variable is determined for each participant in the study. Such a trajectory involves identifying the initial status (or score) of the individual on the dependent measure and then determining the linear and sometimes curvilinear rate of change on the dependent variable for that person. As a common second step, the researcher often examines whether individual-level variables, such as participants' gender, age, education, or any other individual difference characteristics, are related to either participants' initial status scores or their growth trajectories. Growth curve analysis, therefore, examines whether particular groups of individuals differ in either their initial levels on the dependent variable or in the rate of change over time. This approach embraces variability because, unlike such techniques as repeated measures ANOVAs, individual differences in growth trajectories are taken into consideration. Further, the emphasis on changes over time is fully consistent with our focus on fluidity.

Strohschein (2005) examined the extent to which parental divorce affected children's mental health trajectories. With a prospective Canadian sample of 4- to 7-year-old children living with two biological parents, Strohschein compared the mental health trajectories of two groups of children: those whose parents remained married throughout the 5 years of the study and those whose parents divorced during this time. Consistent with a trend discussed later in Chapter 8, even before marital disruption, children whose parents later divorced had higher levels of anxiety-depression

and antisocial behavior than did children whose parents remained married. In terms of change over time, for the divorced group, there was an increase over time in anxiety-depression, but not in antisocial behavior. Despite the increase over time in anxiety-depression for the divorced group, the rate of change in anxiety-depression did not significantly differ between the divorced and continuously married groups. When a number of predivorce child and family characteristics were taken into account, the difference in initial levels of anxiety-depression between the divorced and continuously married groups was no longer significant, indicating that these variables mediated the relation between family structure group and initial levels of anxiety-depression.

Growth curve analysis is extremely sensitive to fluidity in responses to divorce by establishing both the initial status and the growth trajectory on the dependent variable. It can also be attentive to variability in the sense that different subgroups can be created to determine if there are differences in initial status or growth trajectories. For example, Strohschein (2005) found no support for the stress relief hypothesis that subsequent divorce in highly dysfunctional families (as compared with less dysfunctional families) leads to a reduction in children's anxiety-depression. Strohschein also examined whether the link between family structure and mental health outcomes differed by child gender and by the age of the child, and found that neither of these variables moderated the family structure–mental health trajectory relationship, suggesting that the relations between family structure and mental health outcomes were similar for boys and girls and for older and younger children.

Qualitative approaches. Qualitative advances in recent years fall in the nexus between methodology and theoretical perspective. One of these advances is a more fervent acceptance among qualitative researchers (and many quantitative scholars) of a postmodern perspective on theory and methods. The hallmark of a postmodern perspective is the notion that there is no single truth characterizing the social world and that there are many and varied truths depending on a host of contextual and cultural variables. In the divorce literature, there has been a growing recognition that there are both *his* and *her* divorces in the sense that each partner has a unique experience related to the divorce and each constructs a story or narrative describing his or her understanding of the events that occurred during the relationship, as it was dissolving, and after dissolution (Hopper, 2001; Rollie & Duck, 2006). Hopper's qualitative work (see Chapters 5 and 6) suggested that the partners' narratives can be quite

different from each other, even though they are supposedly describing the same event, which suggests that each partner has a different version of reality with respect to the divorce process. This notion of multiple realities and experiences provides a new twist on variability, as it is not just that individuals vary along a single continuum of adjustment (e.g., postdisruption adjustment), but that different individuals may have quite varying views of what constitutes healthy adjustment and what transpired in their now-terminated marriages.

Another qualitative advance is the increased popularity of a critical approach to understanding social phenomena. The key premise of this approach is the notion that social relations, like those involved in the process of divorce, need to be understood in the context of power dynamics. Those in power tend to have more control over relationship-relevant outcomes and typically try to persuade their partners that their version of what happened is the most accurate or truthful one. Thus, those in power control not only relationship outcomes, but also the narratives that arise following relationship dissolution. A critical approach to scholarship is very consistent with a feminist approach, and the two are often, at least implicitly, used in combination with each other. To date, there have not been many critical analyses of reactions to divorce, with the notable exception of work that has examined structural, institutional, relationship, and legal reasons why men fare better socioeconomically following divorce than do women (Sayer, 2006; also see Arendell, 1995).

CONCLUSIONS

Our analysis of research methods used in the study of divorce suggests that we already have in our methodological tool kit a number of strategies that lend themselves very nicely to extending our understanding of variability and fluidity in divorce-related experiences. There is not so much a need to develop new sampling, data collection, and data analytic strategies, but, rather, a need to implement already existing approaches in different and deliberate ways to more systematically collect and analyze information on variation and fluidity in reactions to divorce. Quantitative and qualitative approaches, ideally in synchrony but also on their own, can and should be used to place variability in divorce-related experiences in the foreground, rather than in the background, of divorce research.