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## The Utility of Mixed Methods in the Study of Violence

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# The Utility of Mixed Methods in the Study of Violence

#### **Abstract**

The study of violence has expanded in recent decades, concurrent with a rise in the use of mixed quantitative and qualitative methods in research throughout the social and health sciences. Methodologists have also begun to engage in a thorough theorization of both the epistemological foundations and empirical practice of mixed methods research. Mixed methods enable us to tie the broader patterns revealed by quantitative analysis to underlying processes and causal mechanisms that qualitative research is better able to illuminate, examining and explicating the interactions of structure and agency. This paper examines how qualitative and quantitative research methods may best be integrated in the study of violence, providing and critiquing examples from previous work on different forms of violence. Through the use of mixed methods, we can both improve the accordance of theories and empirical studies with social reality and gain a more nuanced understanding of the causes and consequences of violence.

#### Introduction

The study of conflict and violence has been expanding in recent decades at all levels of analysis, ranging from interpersonal violence to interstate warfare. Concurrently, there has been increasing methodological development and rising popularity of mixed methods research (MMR) across the social (and health) sciences. However, despite some recent studies, MMR is still not used with great frequency in studies of violence and conflict. This paper argues that mixed methods research increases our leverage on complex puzzles in the study of violence, and is likely to reward scholars who use this approach with valuable empirical insights, which will aid in theory testing and development.

Arguments are presented for the utility of MMR in the study of interpersonal violence and examples are provided of both monomethod studies and of research that has successfully used mixed methods. I describe my own experience using mixed methods to study interpersonal violence in South Africa and consider the potential difficulties of conducting MMR in general, as well as the particular difficulties that emerge when studying a sensitive topic (see e.g. Lee 1993) such as violence. As we study the motivations and behaviors of violent individuals, groups, organizations, and states, we should use and integrate all the methods at our disposal to understand and attempt to reduce the incidence of violence in human society.

### MMR: Recent History and Applicability to the Study of Violence

While the mid-20<sup>th</sup> century saw intense debates between social scientists advocating and using quantitative or qualitative methods to the exclusion of other approaches, this divisiveness has waned in the past three decades as greater attention has been paid to the complementarity of methods and how they may best be combined. A new wave of methodologists and other scholars has sought to lay out a coherent logic for mixed methods research, for studies that combine quantitative and qualitative parts into a cohesive whole. Their success may be seen in the existence of mixed methods journals (e.g. the *Journal of Mixed Methods Research* and *Quality & Quantity*) and books dedicated to the design, implementation, and analysis of mixed methods research (Brannen 1992;

<sup>&</sup>lt;sup>1</sup> In this paper I do not discuss the method of transforming data, changing qualitative to quantitative or vice versa. For instance, in qualitative data analysis, qualitative interview or text data is coded and statistically analyzed. It is unclear to me whether this approach should be considered qualitative, quantitative, mixed methods, or something different altogether.

Tashakkori and Teddlie 2003). Quantitative and qualitative methods have begun to be combined more frequently by sociologists and political scientists, as well as health and education researchers. Political scientists and economists, especially those in the rational choice tradition, also make use of formal models in addition to qualitative and quantitative methods to create what Laitin (2002) calls a 'tripartite' methodology (see also Bennett and Braumoeller 2005).

In response to criticisms from philosophers of science that quantitative and qualitative research rest on different epistemological foundations and thus are incompatible and cannot be integrated (see discussion in Smaling 1994; Tashakkori and Teddlie 1998; Johnson, Onwuegbuzie and Turner 2007), mixed methods proponents have adopted the philosophy (and research practice) of pragmatism.<sup>2</sup> Pragmatism "is a philosophy rooted in common sense and dedicated to the transformation of culture, to the resolution of the conflicts that divide us" (Sleeper 1986 in Maxcy 2003:54), thus approving of the use of the formulation or combination of research methods that best meets the needs of the research question and, by extension, of society. Sleeper's characterization of pragmatism as seeking conflict resolution is especially fitting when employed in the study of those conflicts which escalate to violence.

In fact, despite the acrimony existing between the qualitative and quantitative camps in the 1960s and 1970s, there is a long history of mixed qualitative and quantitative research in the social sciences. As Johnson, Onwuegbuzie, and Turner (2007:113) note, "For the first 60 years or so of the 20th century, 'mixed research' (in the sense of including what we, today, would call qualitative and quantitative data) can be seen in the work of cultural anthropologists and, especially, the fieldwork sociologists." Sieber (1973), discussing sociology after World War II and writing at the height of the 'paradigm wars,' describes a divide between fieldworkers (qualitative) and survey researchers (quantitative). However, he then outlines numerous earlier studies which have integrated survey and fieldwork methods, writing that "one could almost say that a new style of research is born of the marriage of survey and fieldwork methodologies" (Sieber 1973:1337). Bryman (1988:108) further notes that many authors who treated quantitative and qualitative research as different epistemological

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<sup>&</sup>lt;sup>2</sup> For a deeper philosophical/epistemological analysis of MMR, see Onwuegbuzie and Leech (2005) and Morgan (2007). The *philosophy* of pragmatism is seldom acknowledged by political scientists who endorse mixing methods, who treat qualitative and quantitative methods as sharing a logic of inference and a scientific method, thus making them epistemologically compatible (see King, Keohane, and Verba 1994; Brady and Collier 2004; Levy 2008:15). This approach is similar to that of the philosophical pragmatists, though, in its rejection of the epistemological incommensurability of different methods, and the political scientists frequently discuss pragmatism in research in practical terms.

paradigms also stated that in practice the research methods could be fruitfully combined (see also Smaling 1994:234).

MMR has become more accepted in the social scientific community at large and it is particularly well-suited to the study of violence. Violence, like all social action, is a complex phenomenon. In discussing his methods and sources in his book *Violence: A Micro-sociological Theory*, Randall Collins (2008:32) states: "My sources are very heterogeneous. This is as it should be. We need as many angles of vision as possible to bear on the phenomenon. Methodological purity is a big stumbling block to understanding, particularly for something as hard to get at as violence."

Beyond the usual problem of complexity, however, violence and conflict are issues of grave importance and academic contributions to their resolution can reduce human suffering. Thus it behooves those of us studying violence and conflict to make use of all methodological tools at our disposal in order to produce knowledge that may be used by policy makers and practitioners (see Druckman 2005).<sup>3</sup>

Snyder, addressing the study of collective violence and riots, found that contemporary quantitative approaches suffered problems of measurement and inference due to their attempts to apply theories across levels of analysis; he thus suggests "merging qualitative analyses of crowd dynamics into quantitative ecological treatments," and recommends strategies ranging "from longitudinal surveys of individual perceptions to intensive analyses of organized groups' life histories to examinations of crowd dynamics" (1978:526) to come closer to capturing and understanding the social processes leading from background conditions to violent action. He argues that "given the difficulties of conventional empirical approaches, methodological shifts in the directions proposed here must be implemented if the continuing problematic issues in collective violence are to be adequately addressed" (Snyder 1978:526). Bryman (1988:140) presents an argument which, when juxtaposed with the above statements by Snyder, holds that mixed methods research can answer Snyder's call for bringing together patterns and processes:

"...qualitative research presents a processual view of social life, whereas quantitative research provides a static account. The attribution 'static' may be taken to have a negative connotation, but this need not be so. By adopting a static view, much quantitative research can provide an account of the regularities, and hence patterns of structure, which are a feature of

<sup>&</sup>lt;sup>3</sup> For further discussion of the need for production of practical knowledge in political science, which could be applied to much of social science at large, see Sartori (2004) and Sil and Katzenstein (2010).

social life. A division of labour is suggested here in that quantitative research may be conceived of as a means of establishing the structural element in social life, qualitative research the processual."

Tarrow has similarly highlighted the role of qualitative research in exposing the processes underlying patterns in quantitative data. He argues that, "Whenever possible, we should use qualitative data to interpret quantitative findings, to get inside the processes underlying decision outcomes, and to investigate the reasons for the tipping points in historical time-series" (1995:474).

Quantitative research, if it uses longitudinal panel data, is not as static as Bryman's characterization, and can be used to trace processes of social change and past influences on actions. However, social action frequently entails microprocesses and individual choices, which are seldom amenable to quantification and better uncovered with qualitative techniques.

The study of violence is also frequently divided between the micro level (experiences and processes) and the macro level (trends and patterns). While the micro level has traditionally been investigated using qualitative methods and the macro with quantitative, this has changed as better data have become available on violence at the individual and community levels. No matter which method is used at which level, though, a more complete understanding of violence results if we are able to integrate micro and macro explanations. Varshney (2008:353), introducing a journal issue on collective violence in Indonesia, emphasizes the need for both quantitative micro-level research and qualitative macro-historical research, arguing that "Temporal variation is best explained by macrofactors, but spatial variation is best analyzed when we pay attention to local processes," and concluding that "A more thorough explanation of Indonesian violence will clearly require both macro- and microexplanations." Once again, Bryman anticipated this need, suggesting mixed methods research as a means of tying together the micro and macro levels (1988:147-149; see also Creswell 2009). Using only one method, we may wind up with a myopic view of a research subject, one that either neglects processes of social interaction to the point of abstraction or, instead, fails to examine larger patterns that may permit generalization from the work (see Ragin 1987:69).

This last point highlights the persistent problem of the relationship between structure and agency in the study of social action. Structure, the systems of

that give rise to political outcomes of interest."

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<sup>&</sup>lt;sup>4</sup> In their cross-national work on civil war onset, Fearon and Laitin (2008:758) also found that "multimethod research combines the strength of large-n designs for identifying empirical regularities and patterns, and the strength of case studies for revealing the causal mechanisms

social relations and systems of meaning (Hays 1994) within which social action takes place, can be studied empirically using either quantitative or qualitative methods, though quantitative methods render structure more legible. However, within the framework of structure, social action results from the decisions of individual agents. In Weber's formulation, "behavior that is identical in its external course and result can be based on the most varied constellations of motives" (in Oakley 1997:817). Thus to capture these motives we must learn about the thought processes of agents, a task for which qualitative methods are better suited.<sup>5</sup> If we take the standard view that structure and agency are in fact intertwined, with agents' actions both shaped by and producing structure (Giddens 1984),<sup>6</sup> then mixed methods, while not necessary in this task, are ideally suited for examining this structure-agency interaction and achieving the Weberian goal of Verstehen, "making intelligible and thereby understanding the causes of events and phenomena generated by the social actions of individual subjective agents" (Oakley 1997:813). In studying violence, mixed methods capture both the broader structural context and the agent's motives, decisions, and interpretation in the perpetration or experience of a violent act. If, like Collins (2008), following the philosophical pragmatists, we view violent social action as a product of unique and constantly evolving situational dynamics, we must still account for the structures that shape situations and the decisions of the actors within them, a task which mixed methods can accomplish with scientific rigor.

### **Evaluating and Critiquing Monomethod Studies** of Violence

Maruna (2010:134), in an overview of MMR in criminology, argues that "there is a long history of mixed method research in violence research, in particular...as understanding the micro-dynamics of aggression is facilitated through both observation as well as rigorous cause-and-effect analysis." There is immense variation in the topics studied in the broader field of interpersonal violence—child abuse, partner violence, criminal assaults and homicides, weapons, etc. It is also at the level of interpersonal violence that one most

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<sup>&</sup>lt;sup>5</sup> However, psychological experiments, which tend to produce quantitative data, may also permit us to get 'inside the heads' of agents. For an application of this method in the study of violence, see Nisbett and Cohen (1996).

<sup>&</sup>lt;sup>6</sup> Changes in structure may sometimes take place at the macro-level independent of individual agency, due, for example, to environmental mechanisms like resource endowment or natural disasters, or economic institutions like brokerage (see Sil and Katzenstein 2010:420).

<sup>&</sup>lt;sup>7</sup> See Emirbayer and Mische 1998:967-968.

frequently finds intervention programs, which may be evaluated using mixed methods, with quantitative data demonstrating whether or not the program succeeded, and qualitative data illuminating the meaning of changes for participants (see e.g. Edwards et al. 2005).

Despite the promise of MMR, though, the field remains dominated by single-method studies. To demonstrate the contribution that MMR can make to the study of interpersonal violence, I evaluate the strengths and weaknesses of two classic monomethod sociological research programs on crime and violence. These are considered some of the best examples of qualitative and quantitative criminology and sociology of violence, yet I argue that each holds an unrealized potential for deeper insights that is not tapped due its single-method approach.

#### **Anderson's Ethnography**

Elijah Anderson, formerly at the University of Pennsylvania and now at Yale University, has devoted his research to understanding how racialized inequality and exclusion drive violence in the inner-city ghettoes of the United States. Anderson uses a deep ethnography of the city of Philadelphia, and most specifically its disadvantaged black areas, to formulate and test a theory of social structure and youth interactions, through which he seeks to explain "why it is that so many inner-city young people are inclined to commit aggression and violence toward one another" (1999:9). Anderson (1998:65-6) describes the ethnographer's goal as "illuminat[ing] the social and cultural dynamics that characterize the setting by answering such questions as 'How do the people in the setting perceive their situation?' 'What assumptions do they bring to their decision making?' 'What behavior patterns result from their choices?' 'What are the social consequences of those behaviors?'" He is, as all researchers should be, cognizant of the assumptions and biases that he brings to his work, and attempts to "override" them (1998:66).

Anderson frames his theory with a distinction between black residents of disadvantaged areas, dividing them into Weberian ideal types, those with a 'decent' orientation and those with a 'street' orientation. These categories are based on the self-presentation of Anderson's subjects:

"The labels 'decent' and 'street,' which the residents themselves use, amount to evaluative judgments that confer status on local residents. The labeling is often the result of a social contest among individuals and families of the neighborhood. Individuals of the two orientations often coexist in the same extended family. Decent residents judge themselves to be so while judging others to be of the street, and street individuals often

present themselves as decent, drawing distinctions between themselves and other people. In addition, there is quite a bit of circumstantial behavior—that is one person may at different times exhibit both decent and street orientations, depending on the circumstances. Although these designations result from so much social jockeying, there do exist concrete features that define each conceptual category" (1994:82).

Anderson's description of situational behavior and the ability of people to codeswitch or move back and forth between orientations, highlights a particular strength of qualitative research. Qualitative research is able to capture these changes in orientation that may occur even from minute to minute by asking respondents about their responses to changing situational dynamics. While it may be possible with quantitative techniques to examine differing reactions to hypothetical changes in situational dynamics through the use of vignettes (see below), Anderson's ethnography builds on real-life experiences, rather than hypotheticals. However, despite Anderson's claim of "concrete features" defining decent and street orientations, these 'conceptual categories' remain vague. This can make replication and testing of Anderson's theory difficult due to different interpretations of the definitions he provides, something that can be avoided in quantitative research with specified values or survey responses.

Anderson argues that for those with a street orientation, violence is learned at an early age as the manner in which disputes must be resolved, a way of testing others and ensuring one's survival on the streets. Violence is governed by the 'code of the streets':

"[The code's] basic requirement is the display of a certain predisposition to violence. Accordingly, one's bearing must send the unmistakable if sometimes subtle message 'to the next person' in public that one is capable of violence and mayhem when the situation requires it, that one can take care of oneself. The nature of this communication is largely determined by the demands of the circumstances, but can include facial expressions, gait, and verbal expressions—all of which are geared mainly to deterring aggression" (1994:88).

The code must also be learned by those decent youths who want to be able to present themselves as tough in their interactions with street youths in school or

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<sup>&</sup>lt;sup>8</sup> As Wacquant (2002:1488) points out, though, Anderson abandons caution and quickly begins treating decent and street as hard and fast categories, reducing "process to static conditions" and failing to critically examine the processes by which these categories have been adopted and how one might move between them in a more permanent, rather than transitory manner.

on the streets. Anderson offers illustrative quotations from field notes and interviews to provide concrete examples of how children learn and are taught the code, and how the code structures social interactions on the streets. Through interviews, Anderson is able to let his subjects speak with their own voices and he himself is able to apply their language in his descriptions. There is less freedom to use the language of subjects in quantitative research. In a mixed methods study, one could apply terms from the subjects' definitions of social life to quantitative variables, though with caution to ensure as close congruence as possible between the subjects' conceptions and the variable definition.

Anderson seeks to demonstrate the agency of his subjects in creating "an oppositional culture to preserve themselves and their self-respect" (1998:102) against the backdrop of an unequal and exclusionary socioeconomic structure. Yet for all the thick description of the structure, one is left at times without a sense of context. There are simply too many possible confounding variables on the road from childhood to the adoption of the code that Anderson is unable to account for in his description or examples. Anderson makes a causal inference that social disorganization in the household and neighborhood leads to violence and a street orientation, using the example of one young child, Casey, and presenting him as an ideal type. Beyond a mention of Casey's mother and stepfather sometimes beating him and a recitation of incidents in which he has caused trouble, though, there is no consideration of what factors in particular in this child's background and surroundings lead to his behavior (1998:87-88). This particular child might have developmental disabilities due to fetal alcohol syndrome, he could be acting out due to the absence of his biological father, or he could be emulating older street-oriented children from his neighborhood. Anderson's inference is thought-provoking and intuitive, but it is weak. Without knowing how many other children share Casey's set of characteristics, it is impossible to know whether he is a representative example or an exception, and it is an extrapolatory leap to place the blame for his behavior at the feet of socioeconomic structure as Anderson does.

Anderson's theory is encompassing and intuitively logical, but it is ultimately unconvincing due to the lack of clear specification and failure to qualify the examples provided. Anderson's work is also limited by its focus on one section of Philadelphia, though he believes it "may offer insight into the problem of youth violence more generally" (1999:9). When sampling/case selection is adequately scrutinized, ethnographies (and qualitative research more generally) tend to have high internal validity, due to their ability to let subjects and the historical record speak for themselves. However, the external validity may be questioned, as it can be problematic to define the 'fuzzy' concepts in qualitative research in such a manner that a study may be replicated, and it is much more

difficult to hold factors constant across cases or geographic locations in trying to generalize from qualitative research. By being clearer and more consistent in his definition of the broad, categorical variables in his study, Anderson could combat these problems.

The strength of Anderson's accounts is his attempt to present his subjects and their surroundings from their own point of view, a point he makes forcefully in response to Wacquant's critique (Anderson 2002). The ethnographic field notes, interviews, participant-observation notes, and life histories compiled by Anderson provide a rich picture of the communities which generated this data. Anderson at times loses track of this data in his own analysis and theorizing, but this is certainly not an indictment of qualitative research in general, and Bartels (2004) in fact argues that such 'unstructured' knowledge and understanding is essential for inference. Where the work could most be complemented by quantitative data and analysis is in contextualizing the subjects and areas of study and in controlling for confounding variables. This would also permit an evaluation of the generalizability of Anderson's findings to other settings. These additions would create a more comprehensive and convincing account of the code itself and its effects on the levels and quality of violence in the American inner-city.

#### Elliott and Huizinga's Survey Analyses

A large quantity of research on the sociology of deviance, and specifically on violent crime, in the United States from the 1980s onwards has made use of the National Youth Survey (NYS), conducted and first analyzed by Delbert Elliott, David Huizinga, and colleagues at the Institute of Behavioral Science of the University of Colorado, formerly the Behavioral Research Institute (Elliott, Huizinga, Knowles, and Canter 1983; Elliott and Huizinga 1983; Elliott, Huizinga, and Ageton 1985; Elliott, Huizinga, and Menard 1989; Elliott 1994). Elliott, Huizinga, et al. have conducted exclusively quantitative analyses. The NYS<sup>10</sup> is a longitudinal study of a representative panel of young people in the U.S., tracking them from early adolescence through their 20s and early 30s. This longitudinal data on the same panel of respondents enables the testing of hypotheses across waves of the survey, making it possible to implement robust

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<sup>&</sup>lt;sup>9</sup> Brezina, Agnew, Cullen and Wright (2004) attempted to model the code of the street and test street and to statistically test its effects on violence in a national sample of American youth, finding support for Anderson's theory and suggesting its applicability beyond Philadelphia. However, as Anderson's variables were vaguely defined, the question remains whether he and Brezina et al. measure the same phenomena.

<sup>&</sup>lt;sup>10</sup>See http://www.colorado.edu/ibs/NYSFS/.

controls and to be more confident about the direction of causation than one can be with cross-sectional data (see Elliott 1994:17). Elliott, Huizinga, et al. sought to improve the internal validity of their studies by trying to illuminate and correct for biases that might be introduced by the use of self-report data (Elliott and Ageton 1980; Elliott and Huizinga 1983) and critically examining the scales they created for analyzing survey data (Elliott and Huizinga 1983), thus enhancing the quality of their quantitative analyses.

After the initiation of the NYS in 1976 and preliminary analysis of data from the first few waves, Elliott, Huizinga, et al. found a potential problem in their coding of delinquent events: there can be a great range of variation in the seriousness or triviality of offenses within the same category. For instance, shoplifting a case of beer from a store is generally considered qualitatively less serious than using a weapon as a tool of coercion to steal a case of beer. To achieve greater precision in their coding of delinquent events, the researchers began to ask follow up questions about the respondents' most recent offense for each category: "for example, what was stolen, how much it was worth, how did you attack the person, how badly was the person hurt, did you use a weapon, what was the victim's relationship to you?" (Elliott and Huizinga 1983:168). These follow up questions help to clarify the coding and to restrict the recorded instances of delinquency to those the researchers wish to measure. 11 Responses were deemed "trivial" and no longer coded as instances of offenses if they were "judged to be logically appropriate but so minor that no official action would have resulted from such behavior," so, for instance, "slugging my brother on the arm during an argument" would be considered trivial and removed from the assault category (Elliott and Huizinga 1983:168).

While these follow-up questions do improve the internal validity of the studies by reducing measurement error, they are descriptive only of the offense itself, stopping short of a consideration of situational dynamics and the motives and orientations of delinquent subjects at the times of their transgressions. Taking advantage of the longitudinal nature of the data, Elliott (1993) is able to trace the career paths of serious violent offenders and examine which factors in offenders' backgrounds predict the onset of their serious violent offending. However, the actual circumstances of onset are not and cannot be explored with

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<sup>&</sup>lt;sup>11</sup> These follow-up questions are helpful, though they may still not provide as rich an account of offenses as is necessary; for instance, if "slugging my brother on the arm during an argument" (Elliot and Huizinga 1983:168) in fact resulted in an injury to the brother, this would in fact be a more serious offense. Complementing the statistical analysis with qualitative data can help address problems of concept stretching (Sartori 1970) and misspecification that might arise from the coding of quantitative data (see also Goemans 2007).

the NYS data. Motivations and choices are difficult to measure and quantify. One is left wondering, why was it at a certain moment that the offender decided to begin acting violently? Within a pre-existing context of peer normlessness, positive attitudes toward deviance, and delinquent peers, what caused this individual to turn to violence when another in similar circumstances did not? Was the offender's adoption of violence a sudden shift or a long slide? To answer these questions, it is necessary to hear the stories of the offenders, a task best accomplished through qualitative methods such as interviews or life histories.

Elliott, Huizinga, et al.'s research does an excellent job of measuring the prevalence and incidence of offending and enabling tests of correlates of offending. They posit and test potential causal mechanisms and provide definite measures enabling replicability and generalizability. Interestingly, Elliott (1993:19) reaches a conclusion similar to one of Anderson's arguments, that young, poor, black men, denied opportunities by a discriminatory socioeconomic structure, find it very difficult to escape from a life of violence and deviance once they enter it. However, while Anderson is unable to provide data that sufficiently illuminate the structure within which his account takes place, Elliott, Huizinga, et al. clearly delineate the structures in their respondents' lives, but fail to engage with the agency of respondents and the decisions they make.

Mixed methods can help us bring these two strands of research together, letting the strengths of one method compensate for the weaknesses of the other and producing a more valid inquiry that permits stronger inferences. To demonstrate how this has been achieved, I now provide two exemplary mixed methods studies of interpersonal violence.

### The Use of Mixed Methods in Studies of Violence

Family and intimate partner violence research has been an expanding subfield as awareness of and legislation against this problem has brought it to the fore. Recently, scholars have responded to Weis's critique of family violence research that "Given the often contrary findings and the validity problems that typify this subject, multimethod and multiple-indicator research should be encouraged and used more often" (1989:154). For example, Hindin and Adair (2002) sought to examine the role of power dynamics in couple relationships in predicting women's suffering intimate partner violence. To study this "couple-level context

of violence" (1386), Hindin and Adair analyzed a survey of women in Cebu in the Philippines and selected a subsample of survey participants for in-depth interviews about their exposure to intimate partner violence, using household decision making as a measure of the balance of power within relationships.

The interview data is used in support of the findings from regression analysis of the survey data, but it also allows extensions of the survey findings by providing a more nuanced understanding of the relationship between power and violence among couples. The qualitative data show relationships between independent variables (1390), and also allow Hindin and Adair to look at the *absence* of violence and how couples may resolve their conflicts non-physically (1395). As the survey data used are cross-sectional, it is not possible to infer causality from the relationship found between power inequality and intimate partner violence exposure; however the interviews provide a view of the process by which violence takes place by presenting both a macroscopic account of the dynamics of the relationship and a microscopic account of the situations in which violence occurs. Hindin and Adair close their paper by stating that it is "clear that a better understanding of IPV in marital relationships may require quantitative measures that look at the factors associated with violence as well as qualitative measures that capture the marital dynamic from both partners' perspectives" (1398).

Mixed methods prove equally useful in examinations of violent crime more generally. Brezina, Tekin, and Topalli (2009) wanted to test more systematically the relationship that quantitative and qualitative researchers have posited between anticipated early death and seeking instant gratification through crime, a 'live fast, die young' mentality. To unite the previous quantitative and qualitative strands in the literature, Brezina et al. chose a mixed methods approach, arguing that it "allow[s] researchers to combine the scientific objectivity afforded by quantitative techniques with a rich understanding of context that can only be derived through qualitative interviews with offenders" (1093). The authors are overzealous in their attribution of "scientific objectivity" only to the quantitative approach, as qualitative social science research may also be carried out on scientific principles (Strauss 1987; King, Keohane, and Verba 1994); the quantitative techniques in Brezina et al.'s work are better described as affording systematic generalizability.

Wording aside, Brezina et al. seek to combine methods and viewpoints and achieve this objective by analyzing quantitative data from a panel study of a nationally representative sample of adolescents in the United States and comparing the findings with data from in-depth interviews with active street offenders in Atlanta. The statistical analysis controlled for a wide range of variables and, as a further step toward improving the internal validity of the

study, the analysis was replicated using a sample of twins and siblings to eliminate possible confounding variables. The statistical analysis, though, "does not allow us to explore the meanings that offenders attach to the prospect of early death or how such meanings impact their decisions to offend" and thus the qualitative phase of the study was necessary to examine the cognitive processes by which offenders' discounting of the future could lead them to violence (1098). Brezina et al.'s study is exemplary in its attention to achieving valid causal inference: it extended previous quantitative research by using longitudinal data to enable inference of the direction of causality; improved the internal validity of their own quantitative findings through replication with a more controlled sample; and confirmed their theory and the causal inference generated by the statistical analysis through comparison with the personal accounts of offenders.

#### **Personal Experiences with MMR**

My current work examines various aspects of interpersonal violence perpetration in Cape Town, South Africa. South Africa remains a society in transition as it grapples with the legacies of racism and inequality left by apartheid and low-intensity civil war leading up to and following the beginning of democratic, majority rule. While political violence is largely a thing of the past (beyond the occasional violent protest over public service delivery [Atkinson 2007]), South Africa has experienced high rates of violent crime and the development of crime as the primary concern for many citizens (see e.g. CSVR 2007).

To investigate the patterns and potential sources of violence in the Cape Town area, I have adopted a mixed methods approach, combining household survey data and field interviews. <sup>12</sup> Survey data come from the Cape Area Panel Study, or CAPS (Lam et al. 2010), a longitudinal study of a panel of young people from the Cape Town area, which has tracked respondents from adolescence into adulthood across five survey waves between 2002 and 2009. Questions on violence were only included in the fifth and most recent wave. However these questions were informed in part by informants' responses in a series of 45 interviews carried out with residents of low-income, high-violence townships in the Cape Flats area. Following an exploratory analysis of the CAPS data, I determined areas of interest for further investigation and conducted interviews

<sup>&</sup>lt;sup>12</sup> This approach is recommended by Sieber (1973). Most of the data I employ in my analysis was compiled before I joined the project, and thus I was not responsible for the initial research design.

with a purposive sample of respondents with specific social and behavioral characteristics. In this way, my associates and I integrated our data collection between qualitative and quantitative phases, with initial interviews informing the development of the survey module, and the resulting survey data provoking questions and providing a subsample for supplementary interviews.

Analyzing the data and writing up the results has led to a very thorough embrace of pragmatism. Depending on the quality of the data available on the specific research topic, different mixed methods procedures have been used for different papers. All analysis was conducted sequentially, with the findings from one research method informing the analysis of data from the other (see Creswell 2009), but the order of mixing and the amount of emphasis on qualitative or quantitative data varied. Seekings and Thaler (in press) examined violence against strangers committed by young men, using the interview data to illuminate broad perceptions about who commits violence and why; we then statistically tested these perceptions and other hypotheses using the survey data. Weapon carrying, a subject on which additional interviews were conducted, was analyzed first by exploring ground-level views on weapons and weapon carriers using interview data, followed by a statistical analysis of weapon carrying in the survey sample, and finally a return to the interview data as means of explaining the quantitative results Thaler 2011b). In examining factors driving male perpetration of family and intimate partner violence, I conducted multivariate and path analyses of the survey data to test hypotheses from the existing literature and then supplemented this with interview data to explicate the quantitative findings with individual experiences and perceptions (Thaler 2011a).<sup>13</sup>

As Bryman (1988:126) writes, "when quantitative and qualitative research are jointly pursued, much more complete accounts of social reality can ensue." Mixing methods has allowed me to combine straightforward statistical evidence about the self-reported behavior of survey respondents<sup>14</sup> with the rich evidence about lived experience and perception provided by interview respondents. I have also found much truth in the ways described by Sieber (1973:1345) that fieldwork complements survey analysis and interpretation, in particular that

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<sup>&</sup>lt;sup>13</sup> Morgan (1998) provides a more systematic 'Priority-Sequence Model' to characterize sequence and emphasis in integrating quantitative and qualitative data. In Morgan's formulation (capitals indicate greater emphasis), the stranger violence paper was qual→QUAN; the weapons paper was a multiphase QUAL→quan→qual; and the family and intimate partner violence paper was QUAN→qual. For another mixed methods classification system, see Creswell (2009).

<sup>&</sup>lt;sup>14</sup> Self-presentation biases, though, will always affect self-reports of violence, even when anonymity is assured (see Thornberry and Krohn 2000).

"certain of the survey results can be validated, or at least given persuasive plausibility, by recourse to observations and informant interviews;" "statistical relationships can be interpreted by reference to field observations;" and that "provocative but puzzling replies to the questionnaire can be clarified by resort to field notes."

This last point was of particular importance in the study of violence against strangers (Seekings and Thaler, in press), where we discovered a disconnect between interviewees' perceptions of the causes of crime and the results of our statistical analysis: while interviewees believed unemployment and poverty led to crime, variables measuring these conditions were not significant in our models. This apparent inconsistency led us to conclude that while those who commit violence against strangers may in fact tend to be poor and unemployed, in a country such as South Africa where poverty and unemployment are widespread, it is other factors, such as heavy drinking and neighborhood social disorganization, which set the violent apart from their nonviolent socioeconomic peers. This process illustrates the importance of mixed methods in acting as checks and balances upon each other. The findings from one method may confirm those of the other, or they may contradict it, with contradiction leading to necessary scrutiny of matters that would have been missed with a single method approach, as well as providing a direction for future investigation.

Finally, in studying norms and attitudes about violence, I have found it useful to integrate data from quantitative and qualitative vignettes. Vignettes are "short stories about hypothetical characters in specified circumstances, to whose situation the interviewee is invited to respond" (Finch 1987:105). They are particularly useful in the examination of norms about sensitive subjects like violence because of the "relative distance between the vignette and the respondent" (Hughes 1998:384). In a study of norms about intimate partner violence, I compared data from open-ended responses to vignettes presented in interviews with statistics from agree-disagree responses to survey vignettes (Thaler, forthcoming). The longer responses from the interviews made it possible to understand justifications for survey responses endorsing violence by providing detailed accounts of gender norms.

Beyond the study of interpersonal violence, vignettes could also prove useful in examining subjects such as soldiers' norms about collateral damage or what level of provocation might be necessary for military and political leaders to resort to force in an international conflict. One particular problem that emerged in my own vignette study, however, was that while a relatively large percentage of survey respondents endorsed violence in a number of situations, interviewees nearly unanimously disagreed with the use of violence, but said 'some people'

would consider it justified. The face-to-face interaction of interviews may have created a self-presentation bias that is not present in an anonymous survey. Thus if we were trying to capture only the subject's *personal* norms, a quantitative, survey-only approach might be better, though in this case the qualitative evidence gained through interviews was still useful for understanding *community* norms.

#### Stumbling Blocks and the Limitations of MMR

Mixing methods is not a panacea. The appropriate choice of methods depends on the nature of the inquiry. Quantitative research is more useful for capturing patterns in the variation of violence and understanding its distribution and correlates. It allows us to control for spurious relationships and generate causal inferences with a quantifiable margin of error, and the definition of variables and conditions allows for generalizability to other settings. Qualitative research is more useful for understanding experiences of violence and their psychosocial effectism or capturing the characteristics of violent situations, allowing us to examine micro-processes and to learn about violent agents' own understanding of their actions. Given these different strengths, it is important when using mixed methods to be clear in defining the concepts and variables that each method is capturing. As the dissonance between qualitative and quantitative responses in my research on norms demonstrated, qualitative and quantitative data may be capturing different aspects of a phenomenon. Sale, Lohfield, and Brazil (2002:50), writing about nursing research, argue that, "a mixed-methods study to develop a measure of burnout experienced by nurses could be described as a qualitative study of the lived experience of burnout to inform a quantitative measure of burnout. Although the phenomenon 'burnout' may appear the same across methods, the distinction between 'lived experience' and 'measure' reconciles the phenomenon to its respective method." This does not mean, however, that the evidence presented about these slightly different, but related phenomena should not be integrated in the presentation of findings, for the qualitative and quantitative evidence together provide a clearer picture of the social reality of the population being studied. Following this line of argument, Ahram (2009:6) cautions us to view mixed methods as "complementary, rather than corroborating."

Conducting a study employing multiple methods is also more difficult and expensive than a monomethod study. It requires a researcher to have familiarity

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<sup>&</sup>lt;sup>15</sup> It may also be that our interview sample was, in fact, normatively opposed to violence, but recognized that others more readily use violence in response to provocative situations.

with the tools and methods of both qualitative and quantitative research, or to work as a team in which quantitative and qualitative experts' skills may complement each other. Such a team, though, has potential for conflict, as there are many decisions to be made about research design and how results will be presented (Bryman 2007:15-16). The process of conducting, for instance, both a survey and in-depth interviews is more time-consuming and also more costly than conducting only one of the two. There also may be different ethical considerations involved in different phases of a project. Additionally, despite the increasing employment of mixed methods and past calls across disciplines for the integration of quantitative and qualitative research, there will always be those who believe in the primacy of one method over others. Publication of MMR may be more difficult in journals or with presses whose editors and reviewers have a strong preference for a particular method (Bryman 2007:18).

Finally, there are particular problems that may affect the conduct of MMR on a sensitive subject like violence. Quantitative analysis of violence through the use of previously compiled or archival datasets avoids the dangers that face researchers conducting fieldwork (be it interviews, field surveys, or observation) in violent areas (see e.g. Nordstrom and Robben 1995; Lee-Treweek and Linkogle 2000). There are increased worries about the validity of responses in dangerous contexts, as respondents may worry about the protection of their anonymity and potential negative consequences from sharing the truth with researchers.

MMR may raise ethical questions due to the possibility of allowing others "to identify and combine a variety of discrete data points from different methods, thereby linking information about individuals and groups that could not be linked if the methods were used separately" (Brewer and Hunter 1989:194). MMR also provides advantages from an ethics standpoint, though, by "allow[ing] one to switch methods if ethical questions are raised, by either the researcher or by others, about one of the methods" so that "ethical issues may be faced directly as such and seen as a challenge to more creative research" (Brewer and Hunter 1989:193). This creativity may be seen, for example, in the innovations of Scacco (2010) in creating multiple layers of confidentiality protection to safeguard the identities of her survey respondents and interviewees. As more researchers examine violence at the micro level, continued engagement with ethical concerns will hopefully lead to further such new approaches that can enable the collection of better data while ensuring the safety of informants.

#### Conclusion

Greater use of MMR has the potential to make important contributions to the study of violence and conflict. As noted by Collins (2008) and others, violence is too complex and pressing a social problem to be subjected to methodological puritanism. We should take from the range of methodological tools those which may be best applied to our research subjects and feel free to mix them as seems appropriate. To keep quantitative and qualitative methods separate is to limit ourselves and reduce the potential impact of studies on such a critical subject. Tarrow (1995:474) admonishes that "a single-minded adherence to either quantitative or qualitative approaches straightjackets scientific progress," while Hammersley (1992:50) argues in the same vein that:

"the distinction between quantitative and qualitative approaches does not capture the full range of options that we face; and that it misrepresents the basis on which decisions should be made. What is involved is not a crossroads where we have to go left or right. A better analogy is a complex maze where we are repeatedly faced with decisions, and where paths wind back on one another. The prevalence of the distinction between qualitative and quantitative methods tends to obscure the complexity of the problems that face us and threatens to render our decisions less effective than they might otherwise be."

In my own research, I have found that mixing methods provides checks and balances in the generation and testing of hypotheses and requires a useful interrogation of the differences that arise between qualitative and quantitative data. Taking an ontologically neutral stance has allowed me to maintain the agency of interviewees and to take seriously their lived experiences and the meanings they find in action, rather than dismissing them as not being as 'factual' as quantitative data, as Cameron (2009:214) would have us believe. Quantitative researchers worry about spurious correlations, and may feel that their models are unable to fully explain certain relationships, such as Demombynes and Özler's (2005) conviction that there is a mechanism connecting inequality and violent crime in South Africa, but that it has a "sociological" explanation that they cannot measure. Qualitative researchers, on the other hand, suffer from uncertainty about the generalizability of their findings. As Brewer and Hunter (1989:25) point out, research on social phenomena should be coordinated toward a unified goal, though "[i]t is immaterial whether coordination is achieved in one multimethod study or by comparing the findings of several independently conducted single-method projects." In a place like South Africa, however, where there is methodological fragmentation and little dialogue between quantitative and qualitative research on violence, 16 using mixed methods helps bring the two strands of research together, testing hypotheses generated by each method with both methods.

Mixing quantitative and qualitative methods promises to lead us beyond the abilities of one method alone and to provide a more holistic view of the phenomena we study, of patterns and processes, effects and causes. This fuller view is extremely helpful (though not necessary) for the production of theories that more accurately explain social phenomena. The formulation of theories (or "clear concepts" in Weberian terms) is a central goal of social science (e.g. Durkheim 1964 [1895]; Weber 1978 [1922]; King, Keohane and Verba 1994; Geddes 2003; George and Bennett 2005). However, as Geddes (2003:4) eloquently states, "To be successful, social science must steer a careful course between the Scylla of lovely but untested theory and Charybdis, the maelstrom of information unstructured by theory." Mixed methods provide the necessary empirical grounding for theory generation and data for theory testing that should be convincing and replicable for researchers of any orientation.

From these tested theories and empirical evidence, formed by the combination of best practices in research methods, we may formulate ideas for the prevention, management, and resolution of violence and conflict. Through the ability of each research method to fill in the gaps in knowledge left by the others, mixed methods give us the opportunity to conduct research that both satisfies the criteria of social scientific inquiry and provides more useful information for policy makers and practitioners.

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<sup>&</sup>lt;sup>16</sup> I have come across only two other mixed methods studies of violence in South Africa (Leggett 2005; Philips and Malcolm 2010) predating the research currently being conducted by myself and Jeremy Seekings.

<sup>&</sup>lt;sup>17</sup> See Hirschman (1970) for a critique of the centrality of theory in social science.

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