

Using Anomie Theory to Examine Gang Fighting

by

Angela M. Collins and Scott Menard

Abstract

This paper uses anomie theory to explain gang fighting in the National Youth Survey Family Study (NYSFS). Merton's anomie theory, including modes of adaptation, along with Cloward's contribution of social disorganization, social class, and delinquent peer group bonding are used. Anomie theory has been used previously to explain drug use and other illegal behavior. Gang fighting was chosen as the dependent variable because of the evidence that this constitutes serious violent collective behavior which is linked to other problem behaviors. HLM analysis was conducted using waves 1-5 of the NYSFS (1976-1980). Support for some of the components of anomie theory was found. Implications and future research directions are also discussed.

Anomie theory was first suggested by Emile Durkheim (1897) and later expanded upon by Merton (1938) and Cloward (1959). Durkheim first used the term to describe the emotional and moral needs of people. These needs, he argued, were insatiable and could only be controlled by societal regulation. These goals were also class specific; meaning that if a person moved up or down, societal regulation would become less legitimate as people would now know how to act within the new environment. Merton (1938) later used the term in his version of anomie theory. Merton described culturally accepted goals that most people strive to obtain and the acceptable means in which to reach these goals. When there is a disjuncture between the goals and means, it is possible for people to feel an internal conflict. To resolve that internal conflict, Merton presented five different modes of adaptation people may choose, with some of those modes of adaptation resulting in deviant activity.

Cloward (1959) expanded upon Merton's anomie theory by adding another component: opportunity. Cloward argued that even if a person chose a deviant mode of adaptation, criminal activity still may not occur if there is no opportunity for criminal activity.

Illegitimate opportunities, like legitimate opportunities, are not always available to everyone and were based on a person's social class. Merton later agreed with Cloward's contribution to his theory (1959).

Previous tests of anomie theory have been used to explain drug use, general delinquency, and fluctuations in overall crime rates (Agnew, 1980; Antonaccio et al., 2014; Baron, 2006; Cao, 2004; Menard, 1995; Menard, 1997; Powell, 1966; Zhao & Cao, 2010). However, only two studies (Menard, 1995; 1997) included all of the relevant theoretical variables to properly test Merton's anomie theory and Cloward's extension of anomie theory. This study was designed to include all of the relevant variables and do so while explaining an underexplored dependent variable: gang fighting.

Gang fighting is important to study not just because it is a fairly common behavior for gang members (reports range from 58% involved in a gang fight within the past year [Pyrooz, Sweeten, and Piquero, 2013] to 82% of gang members who stated they have been involved in a gang fight [Esbensen & Lyskey, 2001]). It is also important because gang fighting can occur among youth who are not gang members. In a study of two Canadian cities, Butters et al. (2011) found that 47% of respondents in Toronto and 57.4% in Montreal reported having been in a gang fight. Youth in both cities that reported having been in a gang fight were about three times more likely to report gun-related violence (hurt someone with a weapon or threaten or try to hurt someone with a gun) than youth not having been in a gang fight (Butters et al., 2011). These results are significant because the youth, while either detained in a youth facility or dropouts from school, were not necessarily gang members, suggesting the gang fighting occurs among non-gang youth.

There is also a significant gap in studying gang fighting because it is most often used as a measure of serious crime within a delinquency scale and rarely used as a predicted outcome on its own (Krohn, Lizotte, Bushway, Schmidt, & Phillips, 2010; Pechorro, Gonçalves, Marôco, Nunes, & Jesus, 2013; Pechorro, Gonçalves, Marôco, Nunes, & Jesus, 2014; Spohn & Kurtz, 2011). For example, using longitudinal data, Farrington and colleagues (2012) examined three cohorts of urban boys. In this case, high risk males were screened out to be used in the final sample. When convicted homicide offenders were asked about delinquency as a juvenile, 41% reported having been in a gang fight (23% of controls reported this) and were significantly more likely (2.3 times) to have been in a gang fight than respondents in the control group. Vaughn et al. (2008) also found that youth in a residential rehabilitation facility that reported having carried a weapon (daily or periodically) or carried a hidden weapon were more likely to report having been involved in a gang fight. The youth involved in gang fighting were also eight times more likely to report carrying a hidden weapon than youth who reported no history of gang fighting. So not only is gang fighting not confined to gang members only, it can also be a significant predictor of other delinquent and violent behavior.

This paper will study gang fighting from the perspective of the anomie theories of Merton (1938) and Cloward (1959). There are two main questions about the relationship between anomie theory and gang fighting that will be addressed: how well does anomie

theory explain gang fighting overall and which components seem to be the most significant in explaining gang fighting? The data analyzed will include the first five waves of the National Youth Survey Family Study (NYSFS), a national, longitudinal data set. The methods section details the HLM analysis. The discussion details what the results mean for integrated theory as a whole, along with how well it explains gang fighting. Finally, directions for future research and policy implications are discussed.

An Overview of Anomie Theory

Merton introduced his version of anomie theory in 1938, by discussing elements of social structure. He described two components of the structure of society as consisting of cultural goals and social institutionally approved means. Culturally defined goals are things that bring success as described by society. The main goal focused on by Merton was financial success, though he did recognize that there may be others, such as educational attainment and occupational status. The institutional means to achieve these goals are considered to be the acceptable way of obtaining goals. Merton argues that while there are many different ways to attain goals, society limits the number of ways that are acceptable. For example, Merton states that while some people may find it easier and quicker to reach goals by committing crime, based on societal norms and morals crime and delinquency are not acceptable as institutional means.

While Merton argued that most people would accept both the culturally approved goals and the societal restrictions on which means were legitimate to achieve those goals, there are certain situations that may lead to rejection of goals, means, or both. He proposed five modes of adaptation, depending on whether a person accepted or rejected the goals and/or means. *Conformity* occurs when someone accepts the goals and means; *innovation* occurs when a person accepts the goals but rejects the restrictions on legitimate means, and is the adaptation most likely to lead to delinquency, according to Merton; *ritualism* is the rejection of the goals but acceptance of the means; *retreatism* is when someone rejects both the goals and the means; and *rebellion* involves the rejection of both the goals and means of society, plus the attempt to establish new goals and legitimate means.

Merton (1964) also distinguishes between the terms anomie and anomia. Anomie refers to the social structure; a breakdown of the social standards that govern behavior along with signifying little social cohesion among people. People do not believe in societal norms about behavior and in a sense, are unsure how to act when interacting with others. Anomia refers to feelings of an individual; what is the anomic state of a person? When levels of anomie, anomia, and the resulting delinquent behavior are high, they all become mutually reinforcing unless forces of social control are used to counteract the cycle.

Cloward (1959) extended Merton's theory and describes three phases in the development of anomie theory. Phase I stemmed from Durkheim and Phase II was Merton's anomie theory, including modes of adaptation. Phase III, "the concept of illegitimate means" (Cloward, 1959, p. 167) is Cloward's addition to anomie theory. He argues that in Merton's typologies he discusses when people turn toward deviance, but does

not recognize that there may not be illegitimate means available to everyone. In this line of thinking, illegitimate and legitimate means to reach a goal (culturally accepted or not) are limited and not available to everyone depending on a person's place in social structure. Merton (1959) supported Cloward's extension of anomie theory, stating that he and Cloward both focus more on social and cultural conditions that account for the different types of delinquent behavior that occur when people occupy different places within social structure. Merton states that Cloward picks up and elaborates on the social structure and the pressures that can come from the disjuncture of goals and means, and that it also depends on access to legitimate and illegitimate means.

While there has been some support for Merton (Agnew, 1980; Antonaccio et al., 2014; Baron, 2006; Cao, 2004; Zhao & Cao, 2010), there is only one study that includes measures of mode of adaptation. Menard (1995) used the National Youth Study Family Survey (NYSFS), a longitudinal dataset to first see if respondents reported a disjuncture between goals and means. Regarding goals, it was found that between 92-94% of respondents in early to middle adolescence stated that they had the goal of having a good job or career. By late adolescence, 88% of respondents still held this view. However, only 64-72% of respondents believed that their chances of being successful in achieving this goal were good, which suggests a discrepancy between goals and means. To examine institutional means further, Menard (1995) found that only 48-66% of respondents stated a college education was important and educational aspirations and expectations seem to decrease with age. These results suggest that the aspirations of the American dream are present, and previous research shows that there is unequal opportunity; so the conditions for anomie as described by Merton do appear to be present.

In testing the relationship between mode of adaptation and delinquency, Menard (1995) found that mode of adaptation had the strongest effect on minor delinquency in early and middle adolescence and had the second strongest effect in late adolescence. Mode of adaptation also had a statistically significant influence on index offending in early and middle adolescence. For marijuana use, mode of adaptation had the strongest influence at every age. Menard (1995) also included a measure of anomia, which had a positive relationship with marijuana use. Overall, the results support Merton's anomie theory. It is important to note that the findings show that the influence of anomie varies by age (it was lower in early adolescence than middle and late adolescence). Menard (1997) also conducted a test of Cloward's extension of Merton's theory. He found that differential opportunity theory did a good job in terms of explaining delinquent behavior and the model did better as age of respondents increased.

Anomie and Gang Fighting

Previous tests of anomie theory have been used to explain drug use, general delinquency, and fluctuations in overall crime rates (Agnew, 1980; Antonaccio et al., 2014; Baron, 2006; Cao, 2004; Menard, 1995; Menard, 1997; Powell, 1966; Zhao & Cao, 2010). As mentioned previously, only one test of Merton's anomie theory actually included

modes of adaptation (Menard, 1995), leaving the theory in need of further testing. Studies that use gang fighting as a dependent variable are also lacking, leaving much room for this study to not only examine gang fighting, but do so with an appropriate theory test.

It is expected that levels of anomie will be higher among respondents that reported involvement in gang fighting, as previous tests of anomie suggest higher levels among delinquents (as described above). In regards to Merton's theory (1938) specifically, he argued that the innovation mode of adaptation was most likely to lead to criminal activity, so it is anticipated that being in the innovator category would be a significant predictor of gang fighting. For Cloward's contribution of delinquent peer group bonding and social disorganization, it is expected that higher levels of both would be significant predictors of higher levels of gang fighting.

Methods

The data for this study come from the National Youth Survey Family Study (NYSFS). The study began in 1976 and originally included 1,725 youth between the ages of 11 and 17. One parent of each respondent was also interviewed. Subsequent waves of data were expanded to include data about the children and spouses of the original respondents. The survey was originally designed to test integrated theory so variables about strain, social bonds, social learning are included in the dataset. The NYSFS also included information about a variety of delinquent behaviors, alcohol and substance abuse, mental health, and more (see Elliott & Ageton, 1980; Elliott et al., 1985; Elliott, Huizinga, & Menard, 1989). This data set contains a wide variety of information about the original respondents from ages 11-17 (in the first wave) to 37-43 in the most recent wave. While the original data is a bit dated, there are very few longitudinal data sets that contain information from the respondents as youth and adults, along with information from the respondent's parents and later, the respondent's children. Waves 1 through 5 (1976-1980) will be used in this analysis because gang fighting is rare at later waves and the time lag increases to 3 years between waves 5-9, and 9 years from wave 9 to wave 11.

Dependent Variables

The dependent variable in this analysis is the prevalence of gang fighting, that is, whether an individual was involved in gang fighting, in the past year. The question in the survey asked how many times a person had been involved in a gang fight over the past year (frequency of gang fighting), and this was recoded into a dichotomous variable. Respondents who indicated that they had not been in a gang fight were coded as 0 and respondents who had been in a gang fight, regardless of the number of times, were coded as 1. As shown in Table 1, the number of people reporting being involved in a gang fight decreased by over half over the five waves, which was expected. Previous research has shown that as juveniles' age, their participation in group crimes tends to decrease (Zimring & Laqueur, 2014), including gang activities (Pyrooz, 2014). In general the majority of the sample, over 80% in all five waves, reported not having been involved in a gang fight.

Specific to the use of the NYSFS data, gang fighting appears to be a reliable and valid measure. Elliott and Huizinga (1989) reported that during the 1979, 1980, and 1983 waves of data, respondents were asked follow up questions about their reported delinquency in order to determine the reliability and validity of the responses. Answers were first deemed appropriate or inappropriate (if the behavior described by the respondent actually fit with the delinquent act they reported). In the case of gang fighting, only 3% of answers were deemed inappropriate, which suggests that respondents were reliable in labeling their gang fighting behavior. From there, the answers that were appropriate were further labeled as trivial or nontrivial. Trivial behaviors are described as those that had they been witnessed by law enforcement or come to the attention of law enforcement, legal action would not have been taken against the respondent. This meant that the more serious behavior was labeled as nontrivial. For gang fighting, almost two thirds of the reports were considered nontrivial (65.8%), suggesting that the reports of gang fighting do reflect instances of serious delinquent behavior.

Predictors

In order to test anomie theory, several categories of predictors are used. First, educational and occupational opportunity were measured by asking respondents what they thought their chances were of completing college and getting the kind of job they wanted after school. Answer choices were good, fair, and poor. Following Menard (1995), the response categories fair and poor were collapsed into one category. These variables were included to measure perceived access to occupational and educational opportunities. As shown in Table 1, as the sample aged, the reported chances of completing a college degree and getting the kind of job they wanted after school decreases slightly over the five waves.

The mode of adaptation variables were created following the procedure described by Menard (1995). First, a belief scale was created from questions asking respondents how wrong it was to commit a variety of delinquent acts. The answer choices were (4) very wrong, (3) wrong, (2) a little bit wrong or (1) not wrong at all. The items included how wrong it was to: damage property; smoke marijuana or hashish; steal something worth less than \$5; hit or threaten someone for no reason; break into a building or vehicle to steal something; sell hard drugs; and steal something worth more than \$50. These scales also had all items load on one factor in a factor analysis and acceptable levels of internal consistency (see Table 2). The scores ranged from a low of 7 to a high of 28. From the belief scale, respondents that answered not wrong at all or a little bit wrong were classified as having accepted the societal norms regarding illegal behavior and respondents that answered wrong or very wrong were classified as not having accepted societal norms.

The second part of the mode of adaptation variables consisted of occupational aspirations as a measure of economic goals. Respondents were asked how important it was for them to have good job/career after finishing school, with answer choices consisting of very important, somewhat important, or not important at all. The answer choices somewhat important and not important at all were collapsed together because the majority of respondents answered very important. Those that answered very important were classified as accepting the goal of economic success, while those that answered it the collapsed categories were classified as rejecting the goal. Once the dummy variables for belief and goals were created, mode of adaptation variables were constructed based on Merton's (1938) descriptions of accepting or rejecting goals and means.

Over the five waves, the majority of the sample was in the conformist category (see Table 1). This is not surprising, as Merton argued this would be the most common mode of adaptation. There were, however, an increasing number of innovators, which is the mode of adaptation Merton argued would be most likely to engage in delinquent behavior.

The anomia consists of items which refer to the necessity of breaking rules in order to achieve goals (a measure of strain). The concept of anomia derived from Merton's (1938; see also Menard, 1995) strain theory. For this analysis, anomia is measured using 6 items with a 5-point Likert scale with answer choices ranging from strongly agree (5) to strongly disagree (1). The following items used to create the scale include: to stay out of trouble, it is sometimes necessary to lie to teachers; at school, it is sometime necessary to play dirty

in order to win; in order to gain the respect of your friends, it is sometimes necessary to beat up on other people; you have to be willing to break some rules if you want to be popular with your friends; sometimes it is necessary to lie to your parents in order to keep their trust; and it may be necessary to break some of your parents' rules in order to keep some of your friends. The scores ranged from a low of 6 to a high between 24 and 30, with lower scores representing low anomia and higher scores representing higher anomia (see Table 2).

-Table 2 about here-

Following Menard (1997), delinquent peer group bonding (DPGB) was used as a measure of illegitimate learning structures, one aspect of illegitimate opportunity. DPGB was measured by using an interaction term. The first part of the interaction was involvement with friends, which was an additive scale using the following variables: the amount of time spent with friends during afternoons during an average week; the amount of time spent with friends during evenings during an average week; and time spent with friends on weekends. This set of variables had a screener question, in which respondents were asked if they had a group of friends or close friends. For respondents who answered no to both screener questions, they were recoded as 0; it is assumed that if they reported no friends then they have no involvement with any friends.

The second part of the interaction was exposure to delinquent friends. The screener questions were also used here, making the assumption that if respondents reported no close friends or not having a group of friends, their exposure would be 0. Respondents were asked the number of their closest friends who engaged in 8 illegal acts in the past year: damaging property; smoking marijuana or hashish; stealing something worth more than \$5; hit or threaten someone for no reason; break into a home or building to steal something; sell hard

drugs; steal something worth more than \$50; and suggest you do something illegal. Both parts had acceptable Cronbach's alpha (see Table 2) and each scale loaded on one factor in a factor analysis. The delinquent peer group bonding scale was then multiplied by involvement with friends. Higher scores represent higher levels, while lower scores represent lower levels of DPGB. As shown in Table 2, levels of DPGB ranged from a low of 0 to a high of 315 to 480.

Again following Menard (1997), social disorganization was included to test illegitimate performance structures, a second component of Cloward's (1959) illegitimate opportunity structure. The social disorganization scale was created using questions asked of respondents parents about issues within their neighborhood: problems with vandalism, buildings being broken into, etc.; winos and junkies; abandoned houses; burglaries and thefts; run down, poorly kept buildings; and assaults and muggings. As shown in Table 3, the Cronbach's alpha for this scale was acceptable at 0.766, with a range of 6 to 18 (lower levels of social disorganization represented by lower numbers; higher levels represented by higher numbers).

-Table 3 about here-

Gender, age, ethnicity, and parental social class are also included as controls. Ethnicity is coded as white (majority) and nonwhite (minority). Because the sample is nationally representative of 11-17 year olds in 1976, numbers of minority group members other than African Americans are too small for separate analysis (Menard and Johnson, 2015). Overall the sample was fairly evenly split on gender (53% male, 47% female) and mostly white (79%) (see Table 4). The average age of the sample was about 14 in Wave 1, with most of the sample still in grade school. The average GPA for the sample was mostly B's (see Table 2 for more descriptives). For parental social class, a scale was created based on the description by Menard (1995). The class variable was a scale measured by the Hollingshead two-factor index (Menard, 1995, p. 142) with a range from 11 (high status) to 77 (low status) (see Table 3).

-Table 4 about here-

Statistical Analysis

Due to the longitudinal data used in the analysis, with observations over time nested within individuals, hierarchical linear modeling (HLM) was used. The outcome variable is the prevalence of gang fighting. Level 1 includes variables that can change over time: age, GPA, job chances, college chances, prevalence of gang fighting at the previous wave, anomia, mode of adaptation, and DPGB. Parental social class, social disorganization, gender, and ethnicity are included as time-constant level 2 predictors. Standardized coefficients were calculated in order to determine which variables were the most influential in the model (Menard, 2010). Explained variation in gang fighting was measured using R_{O2} as described by Menard (2010). This measure is used here because of the quasi-likelihood estimation procedure used in HLM, which does not allow the calculation of the likelihood ratio or McFadden R_{L2} which, according to Menard, is the preferable measure of explained variation when it is available.

Results

Table 5 shows the results of the HLM model. Several variables were significant in predicting gang fighting: parental social class; age; gender; current GPA; previous gang fighting; anomia; and DPGB. Age and current GPA were both negative relationships. This means that as a respondent ages, they are less likely to be involved in gang fighting, and respondents with lower GPA's were more likely to be involved in gang fighting. For parental social class, the higher the social class reported the less likely it is that a respondent was involved in gang fighting. It is also not surprising that respondents who reported previous incidents of gang fighting were more likely to be involved in a gang fight over time. Gender was also significant; males were more likely to report incidents of gang fighting than females.

For the theoretical variables, anomia and illegitimate learning structures (DPGB) were both significant and positive. As levels of anomia decreased, the less likely it was that a respondent was involved in a gang fight. Also, as levels of DPGB decreased so did the likelihood of a respondent reporting being involved in a gang fight. It is important to point out, however, that while anomia was significant, none of the mode of adaptation variables were, and neither were Cloward's illegitimate performance structures (social disorganization).

Standardized coefficients were calculated in order to determine which variables had the greatest effect on gang fighting. As shown in Table 5, previous gang fighting clearly has the strongest effect. Age and GPA were the next strongest, followed by anomia, class, and DPGB. And as measured by R_{02} , approximately 18 percent of the variation in gang fighting was explained by the theory, statistically and substantively significant, but still leaving much unexplained variation.

-Table 5 about here-

Discussion

This study was conducted to test Merton's anomie theory (1938), including modes of adaptation, along with Cloward's theoretical contributions of social disorganization and DPGB (1959). A test of anomie theory on gang fighting is important to the literature, as there are not many theoretically based analyses that use gang fighting as the predicted outcome (Decker et al., 2013).

Theoretical Implications

There is some support for Merton's theory of anomie, as anomia was a significant predictor of gang fighting, which is also what Menard found (1995; 1997). It is important to note, however, that none of the modes of adaptation were significant predictors, including innovators, which Merton argued would be most likely to be delinquent. These results contrast with the findings of Menard (1995; 1997). Menard (1995) found that mode of adaptation was a significant predictor of minor offending in early, middle, and late adolescence. Mode of adaptation was marginally significant in predicting index offending at all ages (Menard, 1995), but this was not found in this study.

In his later piece which included Cloward's contribution of social class and DPGB, Menard (1997) found that the influence of mode of adaptation on minor offending decreased with age. He argued the reduction could be due to the inclusion of social class and DPGB in the model. But Menard also found that mode of adaptation was not significant in predicting index offending, which is consistent with the findings of this study, since gang fighting was one of the components of index offending in Menard (1995; 1997). Because mode of adaptation is an integral part of Merton's theory, it appears that the theory is not well supported for gang fighting; it could also mean that the effect of mode of adaptation is being mediated or moderated by the inclusion of social class, DPGB, and social disorganization.

There was also partial support for Cloward's contribution. While delinquent peer group bonding was a statistically significant predictor of gang fighting, it was the weakest predictor among those that were significant. It is possible that the results are being mediated or moderated by other variables in the model, but more tests would need to be done. Social disorganization and social class were not significant at all. These results are a little different than the findings from Menard (1997). He found that the influence of social disorganization on minor offending increased with age, but the overall influence of class on minor offending was weak.

Policy Implications

Because mode of adaptation, a portion of Merton's theory (1938), was not significant in predicting gang fighting, it seems that anomie theory does not provide a good theoretical basis for gang interventions.

Limitations of the Study

One limitation of this study is that the dependent variable, prevalence of gang fighting, was used due to the absence of a gang membership variable. Much of the gang literature focuses on using a measure of gang membership that is self-reported, but the NYSFS data does not have this measure. Another limitation is that the number of respondents involved in a gang fight decreases over the five waves used, declining by over half between Wave 1 and Wave 5. It is possible the results could be different with a larger sample of youth that have been involved in gang fighting. Also, the majority of the sample fell into the conformist mode of adaptation. A sample that has more respondents in each mode would allow for a more rigorous test of Merton's suggestion of adaptations.

Implications for Future Research

Future research would need to test the significance of being an innovator on different types of delinquency in order to determine if Merton was accurate in his assumptions about modes of adaptation. It is also important for future studies to explore the potential moderating and mediating effects of Cloward's contribution (social class, social disorganization, and DPGB) on the influence of Merton's mode of adaptation. And because Menard and Johnson (2015) suggested the influence of the theoretical variables changes over time, it would be beneficial for future research to use more recent longitudinal data and also conduct intergenerational tests to look for differences.

References

- Agnew, R. S. (1980). Success and anomie: A study of the effect of goals on anomie. *The Sociological Quarterly*, 21: 53-64.
- Antonaccio, O., Smith, W. R., & Gostjev, F. A. (2014). Anomic strain and external constraints: A reassessment of Merton's anomie/strain theory using data from Ukraine. *International Journal of Offender Therapy and Comparative Criminology*, 1-25. DOI: 10.1177/0306624X14533071.
- Baron, S. W. (2006). Street youth, strain theory, and crime. *Journal of Criminal Justice*, 34:209-223.
- Cao, L. (2004). Is American society more anomic? A test of Merton's theory with cross-national data. *International Journal of Comparative and Applied Criminal Justice*, 28:15-32. DOI: 10.1080/01924036.2004.9678714
- Cloward, R. A. (1959). Illegitimate means, anomie, and deviant behavior. *American*

Sociological Review, 24: 164-176.

Elliott, D. S. & Ageton, S. S. (1980). Reconciling race and class differences in self-reported and official estimates of delinquency. *American Sociological Review*, 40, 95-110.

Elliott, D. S., Huizinga, D., & Ageton, S. S. (1985). *Explaining delinquency and drug use*.

Elliott, D. S. and Huizinga, D. (1989). Improving self-reported measures of delinquency. Pp. 155-186 in M. W. Klein (ed.) *Cross-National Research in Self-Reported Crime and Delinquency*. Dordrecht: Kluwer.

Elliott, D. S., Huizinga, D., & Menard, S. (1989). *Multiple problem youth: Delinquency, substance use, and mental health problems*. Springer-Verlag Publishing.

Menard, S. (1995). A developmental test of Mertonian anomie theory. *Journal of Research in Crime and Delinquency*, 32, 136-174.

Menard, S. (1997). A developmental test of Cloward's differential-opportunity theory. In Nikos Passas and Robert Agnew (Eds.), *The Future of Anomie Theory*. Boston, MA: Northeastern University Press.

Menard, S., & Johnson, M. C. (2015). An intergenerational test of integrated theory. *Deviant Behavior*, 36:87-100.

Merton, R. K. (1938). Social structure and anomie. *American Sociological Review* 3, 672-682.

Merton, R. K. (1959). Social conformity, deviation, and opportunity structures: a comment on the contributions of Dubin and Cloward. *American Sociological Review*, 24, 177-189.

Merton, R. K. (1964). Anomie, anomia, and social interaction: contexts of deviant behavior. In Marshall B. Clinard (editor), *Anomie and Deviant Behavior: A Discussion and Critique*. New York: Free Press, 213-242.

Powell, E. H. (1966). Crime as a function of anomie. *The Journal of Criminal Law, Criminology, and Police Science*, 57, 161-171.

Pyrooz, D. C. (2014). "From your first cigarette to your last dyin' day": The patterning of gang membership in the life-course. *Journal of Quantitative Criminology*, 30, 349-372. DOI: 10.1007/s10940-013-9206-1

Zhao, R. & Cao, L. 2010. Social change and anomie: A cross-national study. *Social Forces*, 88, 1209-1230.

Zimring, F. E., & Laqueur, H. (2014). Kids, groups, and crime in defense of conventional wisdom. *Journal of Research in Crime and Delinquency*, DOI: 0022427814555770.

About the Authors

Angela Collins is currently a Visiting Assistant Professor at the University of Arkansas at Little Rock. She received a B.S. in Sociology and Criminology, along with an M.S. in Criminology from Missouri State University, and her Ph.D. at Sam Houston State University in 2016. Her research interests include criminological theory testing, developmental and life course criminology, and juvenile justice and delinquency.

Scott Menard is a Research Associate in the Institute of Behavioral Science at the University of Colorado, Boulder, and a retired Professor of Criminal Justice and Criminology at Sam Houston State University. He received his A.B. at Cornell University and his Ph.D. at the University of Colorado, Boulder, both in Sociology. His publications include books, monographs, and articles on quantitative methods and statistics, criminological theory testing, and intergenerational and life course studies of victimization, illicit substance use, and criminal behavior in adolescents and adults.