

STRAIN, SOCIAL SUPPORT, AND RETREATISM AMONG AFRICAN AMERICANS

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This study tests Agnew's general strain theory (GST) for African Americans, a population neglected in GST research. Specifically, we examined (a) the differential effects of inner- and outer-directed negative emotions on withdrawing behavior and (b) the conditioning effects of social support on the understudied, deviant coping behavior. OLS regression analyses of data from a national survey of African American adults provide empirical evidence that depression and anxiety have larger effects on withdrawing behavior than anger. Findings also provide some support for the hypothesis that social support tends to weaken or buffer the effects of nonangry emotions on withdrawing behavior.

Keywords: general strain theory; social support; negative emotions; withdrawing behavior; African Americans

Agnew's (1992) general strain theory (GST) has rejuvenated criminological research on the etiological significance of strain since its introduction. The theory generally receives empirical support (Agnew, 2001); however, previous tests are based on data collected largely from White Americans (Jang & Johnson, 2003). In addition, the current literature shows limited or mixed results on several issues. First, as GST posits, anger is found to increase the likelihood of criminal and delinquent acts, especially violent or aggressive behavior. However, the effects of anger on noncriminal deviant acts, such as withdrawing behavior, have rarely been studied. Second, the effects of nonangry emotions such as depression

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and anxiety on criminal or deviant acts have been understudied, while a limited number of studies report mixed findings (e.g., Aseltine, Gore, & Gordon, 2000; Broidy, 2001; Jang & Johnson, 2003). Finally, Agnew (1992) proposed social support as one of the conditioning factors that help avoid adopting deviant coping strategies in reaction to strain or negative emotions; however, this proposition has received little empirical support (Capowich, Mazerolle, & Piquero, 2001; Paternoster & Mazerolle, 1994).

To address these issues, we employed ordinary least squares regression to analyze data from the 1980 National Survey of Black Americans (Jackson, 1991). This data set provides a unique opportunity to examine the generalizability of GST in age and race and/or ethnicity given that prior research on GST is mostly based on data collected from adolescents or young adults such as college students who are predominately or exclusively White (Jang & Johnson, 2003).

THEORETICAL OVERVIEW

In GST, Agnew (1992) defined *strain* as “*negative relationships with others . . . in which the individual is not treated as he or she wants to be treated*” (p. 48) and proposed three ideal types of strain: the failure to achieve positively valued goals, the removal of positively valued stimuli, and the presentation of negative stimuli. Agnew then posited that strain generates negative affect, which is, in turn, likely to lead a strained individual to engage in deviant coping behavior in an attempt to alleviate strain and its resultant emotions. Thus, according to GST, the effects of strain on deviant coping behavior should be largely mediated by negative emotions. Otherwise, the direct effects of strain on deviant behavior could be interpreted in terms of other theories than GST (Agnew, 1995; Agnew & White, 1992).

For Agnew (1992), anger was the key emotion explaining crime and deviance, especially violent or aggressive behavior. However, he emphasized not only the “outer-directed” emotion (i.e., anger) but also “inner-directed” emotions, such as depression and anxiety

(Agnew, 1992, p. 60). Agnew made the same conceptual distinction for deviant behaviors, distinguishing between outer-directed (e.g., interpersonal violence) and inner-directed behavior (e.g., drug use or suicide). He then suggested that outer-directed emotions are likely to have stronger effects on outer-than inner-directed behavior, whereas inner-directed emotions are to have larger effects on inner- than outer-directed behavior. This conceptual distinction provides an important clue to explain why strain results in different types of deviant acts.

To elaborate traditional strain models (Cloward & Ohlin, 1960; Cohen, 1955; Merton, 1938) Agnew not only redefined the strain concept and specified strain-generated negative emotions as the source of deviant motivation but also incorporated conditioning factors into his theory to explain why not all strained individuals commit deviant acts in reaction to strain. Agnew proposed that an individual's internal (e.g., self-esteem) and external factors (e.g., social control) condition the effects of strain on coping behavior, affecting the person's choice between conventional and deviant coping strategies. Furthermore, Agnew implied that a test involving conditioning factor should focus on the effects of negative emotions on coping behavior and those of strain on negative emotions and coping behavior (Jang & Johnson, 2003).

In GST, Agnew (1992) presented social support—specifically, support from conventional others, such as family—as a conditioning factor that leads individuals to choose conventional over deviant coping strategy. In addition, he proposed the indirect effects of social support on deviant coping via negative emotions (see also Cullen, 1994); that is, social support decreases negative emotional responses to strain and thus reduces deviant coping. Social support and strain are expected to have negative relationships with each other (Colvin, Cullen, & Vander Ven, 2002).

In the current study, social support was conceptualized as the potential and perceived or actual support that one may use in dealing with strain (Aneshensel, 1992; Cullen, 1994; Mirowsky & Ross, 1989; Pearlin, 1989). Specifically, *social support* refers to an individual's receiving or anticipating instrumental and/or expressive provisions supplied by others. It also means having intimate,

personal relationships through social networks made up of other people with whom he or she interacts. These other people all have the potential to aid the individual with some form of social support (Vaux, 1988), and the sense of having someone who loves and understands may, in and of itself, reduce stress, whether the person provides practical help and protection (Thoits, 1982).

PRIOR RESEARCH

Previous studies generally show that strain increases negative emotions, which in turn lead to deviant coping behavior including crime and delinquency (Agnew & White, 1992; Aseltine et al., 2000; Brezina, 1998; Broidy, 2001; Capowich et al., 2001; Jang & Johnson, 2003; Mazerolle, Burton, Cullen, Evans, & Payne, 2000; Mazerolle & Piquero, 1998; Piquero & Sealock, 2000). Thus, they tend to support Agnew's (1992, 1995) proposition that the effects of strain on deviance and crime are largely mediated by negative emotions.

Specifically, outer-directed emotion, anger, is found to have positive effects on different types of crime and deviance, especially outer-directed behavior such as interpersonal aggression or violence. Previous researchers, however, have not often studied whether anger also has significant effects on inner-directed behavior such as drug use (Jang & Johnson, 2003). In addition, the hypothesized effects of inner-directed, nonangry emotions, such as depression and anxiety, on deviance, whether inner- or outer directed, tend to receive less empirical support than those of outer-directed, angry emotion (e.g., Aseltine et al., 2000; Piquero & Sealock, 2000). When significant effects of inner-directed emotions on deviant coping are observed, they are either the exception or counter to the expected findings (e.g., Broidy, 2001; Capowich et al., 2001; but see Jang & Johnson, 2003).

Previous studies also report mixed results on GST's conditioning factors (Agnew, Brezina, Wright, & Cullen, 2002). For example, Agnew and White (1992) found strain-aggravating effects of delinquent friends on delinquency and drug use, and

strain-ameliorating effects of self-efficacy on delinquency, but not on drug use. Similarly, Mazerolle et al. (2000) reported that deviant peer affiliations increase the effects of strain on violent delinquency and drug use, whereas a composite measure of Hirschi's (1969) social bonds decreases the effects of strain on drug use but not on violent delinquency (see also Mazerolle & Maahs, 2000). Although finding significant interactions involving strain and delinquent peers and family attachment, Aseltine et al. (2000) reported that one half of the significant conditioning effects involving self-esteem are opposite to what was predicted. Finally, Piquero and Sealock (2000) and Jang and Johnson (2003) found that a spiritual or religious factor tends to buffer the effects of negative emotions on deviant coping.

Unlike stress and health researchers, criminologists had paid little attention until Cullen (1994) argued that social support is an important concept capable of organizing diverse theories and research traditions in criminology. Perhaps partly because of the lack of interest, only two studies have been conducted to examine social support in testing GST. First, Paternoster and Mazerolle (1994) constructed a 9-item index measuring the degree of support the adolescents believe they would receive from their mother, father, and friends if they got into trouble at school, with police, and in the neighborhood; however, they found neither moderating nor direct effects of social support on delinquency. This null finding might be because of, partly, their limited measure of social support. Specifically, it is unclear whether support from friends (whose influence on adolescents tends to be greater than parents') should be considered as "conventional" given the generally positive association between delinquency and relations with friends even if the friends were not specified as delinquent peers (Akers, 1997). Their measure is also potentially problematic given a previous suggestion that social support should be measured without reference to, or independently from specific outcomes (Thoits, 1982).

Second, using comprehensive measures of social support, Capowich et al. (2001) found limited evidence of the direct effects of social support on intentions for deviant coping behavior, controlling for negative emotions. They also examined conditioning

effects of social support by comparing low and high support groups (constructed by using three quartiles) in the effects of strain on the measures of behavioral intentions. None of group differences in the effects, however, was found significant at the level of .05 (i.e., $z = -.55$ for intention to fight, $z = -1.47$ for intention to shoplift, and $z = -.12$ for intention to drive drunk), when we tested using a formula proposed by Paternoster and associates (Paternoster, Brame, Mazerolle, & Piquero, 1998). Thus Capowich et al.'s study shows no significant strain-buffering effects of social support.

In sum, prior research on GST provides empirical evidence of outer-directed emotions, that is, anger mediating the effects of strain on deviant coping behavior; however, overall findings tend to be inconclusive about the theoretical significance of inner-directed emotions (e.g., depression or anxiety) and inner-directed deviant coping (e.g., drug use) in GST. In addition, previous findings about the differential effects of inner- and outer-directed emotions on different types of deviant coping behavior (i.e., inner- and outer-directed behavior) are limited and, at best, mixed. Finally, the conditioning effect of social support predicted by GST has been understudied.

AFRICAN AMERICANS, GST, AND SOCIAL SUPPORT

GST is a general theory for all ethnic groups but is of special relevance to African Americans who experience higher levels of strain because of racism, economic disadvantage, criminal victimization, and poor health and thus are more distressed than other groups, especially Whites (Hagan & Peterson, 1995; Mirowsky & Ross, 1989). However, our literature search showed that only one study testing GST based on African American data has been published since Agnew (1992) introduced the theory (Jang & Johnson, 2003). Jang and Johnson's research provides empirical evidence that GST applied to African Americans as well as Whites. Specifically, they found that strain generates inner- and outer-directed

negative emotions, which in turn lead to interpersonal aggression and drug use.

Furthermore, Jang and Johnson (2003) developed a hypothesis unique to African Americans by synthesizing two propositions. First, GST posits that (a) strained individuals are more likely to experience outer- than inner-directed emotions when they externalize strain by blaming others for their adversity¹ and (b) individuals externalizing strain are more likely to engage in outer- than inner-directed deviant coping behavior. Second, it has been suggested that African Americans are more likely than other ethnic groups to externalize their adversity because of their relatively well developed racial consciousness² based on the history of involuntary immigration and slavery as well as racial prejudice and discrimination (Hagan & Peterson, 1995; Neighbors, Jackson, Broman, & Thompson, 1996; Ogbu, 1990). As a result, African Americans are more likely to experience outer- (anger) than inner-directed emotions (depression or anxiety) in reaction to strain, and thus overall negative emotions (which tend to be outer-rather than inner directed) are more likely to result in outer- (e.g., interpersonal aggression) than inner-directed deviant coping (e.g., drug use). This was exactly what Jang and Johnson (2003) found.

On the other hand, social support has been a reoccurring theme in the study of stress and health among African Americans, and previous research confirms that social support reduces distress and buffers the effects of strain on mental and physical health among African Americans. For example, Johnson and Jennison (1994) found that social support attenuates or buffers the effects of negative life stressors on drinking and, thus, could be used in prevention and treatment programs for the African American problem drinker. Similarly, according to Romano, Bloom, and Syme (1991), although strain increases smoking, social support decreases the unhealthy behavior among African American women. In addition, Kang and Bloom (1993) reported that social support reduces a person's health risk by increasing the use of cancer screening such as mammography among African Americans age 55 years or older. Other researchers show that religious involvement is a major source of social support among African

Americans, while the support comes from family and friends as well as from other coreligionists (Chatters, 2000; Ellison, 1995; Ellison & Levin, 1998).

THE CURRENT STUDY

The current study was intended to build on previous research on GST and social support among African Americans by extending Jang and Johnson's (2003) model of GST to examine (a) the differential effects of inner- and outer-directed emotions on withdrawing behavior, which is an understudied form of noncriminal deviant coping behavior³ and (b) the conditioning effects of social support on deviant coping, for which previous research finds little empirical support. Not only to address these two key issues but also examine the applicability of GST to African Americans, we tested the following hypotheses:

Hypothesis 1: Strain is positively related to negative emotions.

Hypothesis 2: Social support is negatively related to negative emotions.

Hypothesis 3: Negative emotions are positively related to withdrawing behavior with inner-directed emotions being more strongly related to the behavior than outer-directed emotions.

Hypothesis 4: Any direct effects of strain and social support on withdrawing behavior decrease when negative emotions are controlled for.

Hypothesis 5: Social support weakens the positive relationships (a) between strain and negative emotions, (b) between strain and withdrawing behavior, and (c) between negative emotions and withdrawing behavior.

METHOD

DATA

The data to test our hypotheses came from the National Survey of Black Americans (NSBA), precisely, the NSBA Cross-Section

Study, which was the first of the six national studies conducted by the Program for Research on Black Americans (Jackson, 1991). The NSBA Cross-Section Study, a nationally representative survey of the adult African Americans, was completed in 1980 for a sample of 2,107 respondents. This multistage, probability sample was based on the national distribution of African Americans indicated in the 1970 Census. The sample was self-weighting, and every African American household in the continental United States had the same probability of being selected. Among eligible respondents (age 18 years or older, self-identified Black, and U.S. citizens) of each selected household, one person was randomly chosen for face-to-face interview. To complete the interviews, an average of 3.4 call backs were made with a range of 1 to 22 per household, generating the overall response rate of 67%. This rate reflects that the Black population is disproportionately distributed within urban areas, where typically response rates have been low.

This national sample is fairly representative of the Black population as reported by the 1980 Census (Jackson, 1991), while it somewhat overrepresents women (62%, $n = 1,310$).⁴ Overrepresentation of female respondents is common for household interview survey because women are more likely to answer survey questions than men living in the same household (Mirowsky & Ross, 1995). This is especially true of the African American population that shows relatively high rates of female-headed households (U.S. Department of Commerce, 1981).

MEASUREMENT

In the NSBA, each respondent was asked about "personal problem(s)" that came up not only in a respondent's life but also in his or her significant others' lives,⁵ which could not be handled by himself or herself. More than one half of the total sample (61%, $n = 1,281$) answered the question affirmatively by reporting a wide variety of personal problems that cover Agnew's three ideal types of strain (see appendix). On the other hand, about one third of the sample (36%, $n = 763$) mentioned no such problem, whereas about 3% ($n = 63$) was treated as missing data (e.g., "don't know"). The index of

personal problems or strain has the value of 1 or 2 because each respondent mentioned only up to two problems. A total of 1,266 respondents provided data on the relevant categories of personal problems and thus are included in the subsequent analysis.⁶

Respondents who mentioned personal problem(s) were asked a set of follow-up questions about "how they felt" during the time that they were having trouble with the problem(s) and how often they felt that way. Specifically, they were asked about nine items of emotional reactions to the problem, including feeling "lonely," being "depressed," and losing one's "temper." The temper item was used as the measure of outer-directed, angry emotions, whereas all the other items measuring depression and anxiety are combined into an index of inner-directed, nonangry emotions. These eight items' factor loadings, ranging from .51 to .76, and the inter-item reliability ($\alpha = .84$) are high.

The respondents were also asked how they acted during the time of trouble and how often they acted that way, including whether they "did not want to see or talk with anyone." We used this as our measure of inner-directed deviant coping behavior, withdrawing behavior.

Based on our conceptualization of social support, two measures were constructed to tap an individual's potential (i.e., having intimate, personal relationships through social networks) and actual or perceived social support (i.e., receiving or anticipating to receive instrumental and/or expressive provisions supplied by others). To construct the former, potential support, we combined each respondent's standardized scores on two items asking about (a) how close his or her family members are in their feelings to each other (1 = not close at all, 2 = not too close, 3 = fairly close, 4 = very close) and (b) how many friends, not including relatives, he or she feels free to talk with about his or her problems (1 = none, 2 = a few, 3 = some, 4 = many). Thus a high score on this measure indicates a relatively high level of social support potentially present in family and friend networks.

On the other hand, a second measure of social support was constructed based on the items of family and religious support networks. For the family network, it was first asked how often each

respondent perceives people in his or her family to help him or her out. If a respondent reported that they do, regardless of the frequency of help, it was asked again how much help they are to him or her (1 = only a little help, 2 = a lot of help, 3 = a great deal of help). If, however, a respondent reported that he or she was "never" helped or "never needed help," it was then asked whether they would help him or her if help were needed. We coded negative (no) and positive answer (yes) to this question as "no help at all" (0) and "a lot of help" (2), respectively; so that these two follow-up questions may be combined into a single variable measuring perceived family support. We constructed perceived support from the religious network in the same way, although the wording of response categories is slightly different (see appendix). These two variables were then standardized and summed for our measure of perceived support.

Finally, we included sociodemographic variables in the current analysis to control for the sources of spurious relationships: age, gender (0 = female, 1 = male), social class (the sum of standardized scores on education and family income, see appendix), marital status (0 = not or never married, 1 = married), and region (0 = the non-South, 1 = the South).

RESULTS

We applied ordinary least squares (OLS) regression analysis to test our hypotheses, using the method of listwise deletion of missing cases, which generated the final sample of 1,211 respondents. For statistical significance ($\alpha = .05$), we conducted one-tailed test for the hypothesized relationships and two-tailed test for nonhypothesized ones including any relationship whose direction is opposite to our expectation.

Table 1 summarizes results from estimating eight regression models for the two measures of negative emotions, angry and nonangry emotions. As hypothesized, strain (Hypothesis 1) and potential support (Hypothesis 2) have significant direct effects on angry and nonangry emotions in the expected direction, whether

TABLE 1
**Estimated Regression Models of Strain, Social Support, and Negative Emotions:
 Unstandardized and Standardized Coefficients**

Independent Variable	Angry Emotions				Nonangry Emotions			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Male	-.26* (-.08)	-.30* (-.09)	-.25* (-.08)	-.25* (-.08)	-.52* (-.24)	-.52* (-.25)	-.51* (-.24)	-.51* (-.24)
Age	-.02* (-.22)	-.02* (-.21)	-.02* (-.22)	-.02* (-.22)	-.00 (-.02)	-.00 (-.02)	-.00 (-.03)	-.00 (-.03)
Social class	-.04 (-.04)	-.01 (-.01)	-.02 (-.02)	-.02 (-.02)	-.10* (-.17)	-.09* (-.15)	-.10* (-.16)	-.10* (-.16)
Married	.05 (.02)	.02 (.01)	.05 (.02)	.06 (.02)	-.06 (-.03)	-.06 (-.03)	-.05 (-.02)	-.05 (-.02)
South	-.30* (-.10)	-.28* (-.09)	-.27* (-.09)	-.27* (-.09)	.04 (.02)	.04 (.02)	.05 (.03)	.05 (.03)
Strain	.25† (.06)		.26† (.06)	.26† (.06)	.17† (.06)		.18† (.07)	.18† (.07)
Perceived support		-.02 (-.01)	-.02 (-.01)	-.02 (-.01)		-.01 (-.02)	-.01 (-.02)	-.01 (-.02)
Potential support		-.08† (-.08)	-.09† (-.08)	-.09† (-.08)		-.04† (-.06)	-.05† (-.07)	-.05† (-.07)
Strain × Perceived support				.04 (.02)				
Strain × Potential support				-.14† (-.05)				
Adjusted R ²	.06	.06	.07	.07	.10	.11	.11	.11

NOTE: Standardized coefficients are in parentheses.
 † $p < .05$ (one-tailed test). * $p < .05$ (two-tailed test).

controlling for each other; however, coefficients associated with perceived support provide no empirical support for Hypothesis 2 (see Models 2 to 4 for angry emotions and Models 6 to 8 for nonangry emotions). Similarly, empirical support for the hypothesis about the buffering effects of social support (Hypothesis 5a) is provided by potential support, but not perceived support (see Models 4 and 8). The conditioning effects of perceived support remained nonsignificant when we included one interaction term at a time in the model, (results not shown in table).

Table 2 shows the effects of strain, social support, and negative emotions on withdrawing behavior. First, Model 7 documents significant effects of angry and nonangry emotions on withdrawing behavior, which is consistent with Hypothesis 3. This hypothesis also receives empirical support from the model that shows inner-directed, nonangry emotions have larger effects on inner-directed, withdrawing behavior than outer-directed, angry emotions (.37 vs. .14 in standardized coefficient).

Second, comparison of the effects of strain and social support on withdrawing behavior before and after controlling for negative emotions (Models 3 vs. 7) indicates some support for the hypothesis that negative emotions mediate the effects of strain and social support on withdrawing behavior (Hypothesis 4). Specifically, the effects of potential support on the dependent variable (−.08 in Model 3) decrease in size when negative emotions are added to the model (−.05 in Model 7) and then further decrease slightly when interaction terms involving negative emotions are added to the model (−.04 in Model 8). However, neither of the reduction was found statistically significant with $z = -.78$ and $-.95$, respectively (Paternoster et al., 1998). In addition, this change in the coefficient of potential support is attributable equally to angry and nonangry emotions, each of which reduces the effects of potential support on withdrawing behavior from −.08 to −.06 when included in the model (see Models 5 and 6).

On the other hand, the effects of perceived support and strain remain nonsignificant across models (Models 3 to 8) even when the strain and social support variables were included in the model alternately (Models 1 and 2). However, given that strain has significant

TABLE 2
**Estimated Regression Models of Strain, Social Support, Negative Emotions, and Withdrawing Behavior:
 Unstandardized and Standardized Coefficients**

<i>Independent Variable</i>	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Male	-.08 (-.02)	-.07 (-.02)	-.06 (-.02)	-.06 (-.02)	-.01 (-.00)	.25* (.08)	.25* (.08)	.27* (.08)
Age	-.01* (-.11)	-.01* (-.11)	-.01* (-.11)	-.01* (-.11)	-.01 (-.05)	-.01* (-.09)	-.01* (-.06)	-.01* (-.06)
Social class	-.00 (-.01)	.01 (.01)	.01 (.01)	.01 (.01)	.01 (.02)	.07* (.08)	.07* (.08)	.07* (.08)
Married	-.24* (-.08)	-.23* (-.08)	-.24* (-.08)	-.24* (-.08)	-.24* (-.08)	-.20* (-.06)	-.21* (-.07)	-.21* (-.07)
South	-.05 (-.02)	-.03 (-.01)	-.03 (-.01)	-.03 (-.01)	.04 (.01)	-.06 (-.02)	-.02 (-.01)	-.01 (-.00)
Strain	.10 (.02)		.12 (.03)	.12 (.03)	.05 (.01)	.01 (.00)	-.02 (-.00)	-.00 (-.00)
Perceived support		-.02 (-.02)	-.02 (-.02)	-.02 (-.02)	-.02 (-.01)	-.01 (-.01)	-.01 (-.01)	-.01 (-.01)
Potential support		-.08 [†] (-.08)	-.08 [†] (-.08)	-.08 [†] (-.08)	-.06 [†] (-.06)	-.06 [†] (-.06)	-.05 [†] (-.05)	-.04 (-.04)
Strain × Perceived support								
Strain × Potential support					.24 [†] (.25)		.13 [†] (.14)	.14 [†] (.14)
Angry emotions						.62 [†] (.41)	.55 [†] (.37)	.56 [†] (.37)
Nonangry emotions								
Angry emotions × Perceived support								.01 (.02)
Angry emotions × Potential support								
Nonangry emotions × Perceived support								.03 (.04)
Nonangry emotions × Potential support								.02 (.02)
Adjusted R ²	.02	.02	.02	.02	.08	.17	.19	-.08 [†] (-.08)

NOTE: Standardized coefficients are in parentheses.
[†]*p* < .05 (one-tailed test). **p* < .05 (two-tailed test).

effects on negative emotions (see Table 1) and negative emotions have significant effects on withdrawing behavior, our findings still indicate that the effects of strain on withdrawing behavior are indirect via negative emotions.

Next, we found that neither perceived or potential social support has significant strain-buffering effects ($-.07$ and $-.06$, respectively, in Model 4), failing, therefore, to find empirical support for Hypothesis 5b. However, we observed some evidence of social support conditioning the effects of negative emotions, specifically, nonangry emotions as hypothesized (Hypothesis 5c); that is, potential support weakens or buffers the effects of nonangry emotions on withdrawing behavior ($-.08$ in Model 8). Although only one of the four interactions involving social support and negative emotions was found significant, this finding together with the significant interaction effects presented in Table 1 seem to suggest that the conditioning effect of social support predicted by GST is more likely to be observed when it is measured in terms of social support potentially available in an individual's personal networks rather than his or her perceptual evaluation of actual social support from others (Thoits, 1982; Vaux, 1988).

Finally, our model of negative emotions (see Table 1) tends to account for nonangry emotions slightly better ($R^2 = .11$) than angry emotions ($R^2 = .07$) with social support adding little to what was already explained by strain (Models 1 vs. 3 and Models 5 vs. 7), which indicates the importance of strain relative to social support in explaining withdrawing behavior. This finding is inconsistent with previous studies that report relatively weak or nonsignificant association between strain and nonangry emotions such as depression (e.g., Broidy, 2001) and any speculation that nonangry emotions are not as central to GST as anger. On the other hand, our theoretical model shows the importance of negative emotions, especially nonangry emotions, in accounting for inner-directed withdrawing behavior intended to cope with strain (see Table 2).

SUMMARY AND DISCUSSION

The current study was intended to examine two understudied relationships hypothesized within the framework of Agnew's (1992) general strain theory (GST) by analyzing national survey data collected from African Americans. The first relationship focuses on inner-directed, nonangry emotions produced by strain, whose significance in GST has not been empirically established. A second relationship concerns a research question that has not received enough satisfying answers yet: Does having helpful others and perceived support from them reduce the chance that an individual chooses deviant over conventional coping when faced with strain and negative emotions that result from the strain?

According to GST, strain generates not only anger but also other types of negative emotions, such as depression or anxiety, within the individual. Those emotions then motivate him or her to cope with strain and its resultant negative emotions by adopting deviant or nondeviant coping strategies. While Agnew (1992) proposed anger as "the most critical emotional reaction for the purposes of the general strain theory" (p. 59), a relatively small number of studies included nonangry emotions in testing the theory with most of them reporting limited evidence for the relevance of such emotions to GST. Analyzing data from a national survey of African American adults of diverse sociodemographic backgrounds, we found that African Americans experience not only anger but also depression and anxiety in response to problems in their significant others' lives as well as their own. We also found that the effects of strain on withdrawing behavior are indirect via nonangry and angry emotions, as GST predicted.

In addition, the current study provides evidence for systematic relationships between negative emotions and deviant coping behavior in terms of directedness, as Agnew (1992) suggested. Examining rarely studied inner-directed behavior (i.e., withdrawing behavior), we found that African Americans are more likely to withdraw from other people when they feel depressed and anxious than when they are angry. This finding complements the study conducted by Jang and Johnson (2003) who found that inner-directed emotions (depression and anxiety) have larger effects on inner-directed deviant coping (drug

use) than outer-directed emotions (anger), and outer-directed emotions have larger effects on outer-directed deviant coping behavior (interpersonal aggression) than inner-directed emotions.

Next, we found some evidence that the effects of social support (i.e., potential support) on withdrawing behavior are indirect via negative emotions. Future research needs to further examine the effects of social support on deviant behavior not only by improving the measurement of the concept but also including positive emotions that social support is likely to generate, which in turn is likely to reduce deviant coping behavior (Colvin et al., 2002). The current study also provides some evidence of the conditioning effects of social support; that is, African Americans, who have useful help available from the family and religious networks and maintain close relationships with family members and friends, are less likely to have their negative emotions, especially inner-directed ones that lead them to withdraw from other people, than those who do not. Significant buffering of social support was found for the effects of negative emotions on withdrawing behavior, but not for the effects of strain on negative emotions or withdrawing behavior (Jang & Johnson, 2003). This finding implies that those who have social support from other people are less likely to feel pressured to turn to undesirable, noninstrumental coping strategies than those who lack such support, although the former are not necessarily protected from life's strain relative to the latter.

Finally, although we included the respondent's sex in our analysis as statistical control, it is worthwhile to briefly discuss the current study's implications for GST research on gender (Broidy & Agnew, 1997). The current study based on national survey data from African Americans shows that men report lower levels of negative emotions in reaction to personal problems than women, as Mirowsky and Ross (1995) found in a national sample of mostly White Americans. In addition, our observation that the sex differences in inner-directed emotions of depression and anxiety tend to be larger than in outer-directed anger (see Models 1 through 4 vs. Models 5 through 8 in Table 1) is also consistent with what Broidy and Angew (1997) suggested regarding gendered pattern of emotional responses to strain: "Although both males and females are likely to respond to strain with

anger, the anger of females is more likely to be accompanied by emotions such as depression, guilt, anxiety, and shame" (p. 297).

Furthermore, our findings, together with Jang and Johnson's (2003), about differential relationships between negative emotions and coping behaviors can be applied to explain gender differences in crime. Specifically, as Broidy and Agnew (1997) proposed, males and females tend to engage in different behavioral coping partly because they experience "distinct emotional responses to strain" (p. 297). Specifically, women are more likely than men to respond to strain with inner-directed emotions, such as depression and anxiety, and thus more likely to engage in inner-directed, self-destructive forms of deviance, such as drug use and eating disorders rather than outer-directed crime, such as violence. Recent research tends to provide empirical support for this proposition (Jang & Johnson, 2005; Piquero & Sealock, 2004).

Our findings need to be interpreted with caution given that we analyzed cross-sectional data to test causal hypotheses. However, the data were collected based on what Broidy (2001) called a "diary type of approach" (p. 31), which allows causal interpretation of estimated relationships among the key variables of GST because respondents were asked to first report their personal problems and then emotional and behavioral reactions to the reported strain. We agree with Jang and Johnson (2003) that use of cross-sectional data collected based on the diary type of approach provides a better test of GST than longitudinal data with long intervals between waves (e.g., Agnew & White, 1992; Aseltine et al., 2000; Paternoster & Mazerolle, 1994). However, future research needs to be conducted based on prospective longitudinal data with a relatively short lag between waves, although such data are not often available for criminological research.

In conclusion, we believe that the current study contributes to the literatures not only on GST and social support but also African American studies by examining understudied relationships proposed in the theory based on data collected from a national survey of African Americans, an ethnic group neglected in GST research. Our findings generally confirm that Agnew's GST is an important theory that helps understand emotional and behavioral responses to strain among African Americans.

APPENDIX
Items Used for Analysis

<i>Concept</i>	<i>Description of Item (Response Category)</i>	<i>Factor Loading</i>	α
Strain	<p>“Thinking about the last time you [had a personal problem you couldn’t handle by yourself], what was this problem about?”</p> <p>(1) poor or declining financial status, loss of assets, theft or destruction of property (except housing), problem with car or other material goods, etc.</p> <p>(2) moved to or lives in poor (worse) house or apartment or neighborhood, dislocation or relocation, theft or destruction to house or apartment, etc.</p> <p>(3) problems finding a job, quit job, laid off, unemployed or lost job, retired, business problems, negative events at work, job demotion, trouble with boss/supervisor/coworkers, work-related tension, poor work conditions, etc.</p> <p>(4) negative events related to school, admission problems or failure, school-related pressures, bad things happened at school, etc.</p> <p>(5) legal, involved in court action/lawsuit/legal action, arrested or convicted of crime or violation of law, legal aspects of divorce, custody of children, etc.</p> <p>(6) trouble with family/spouse/child(ren)/parent(s)/in-law(s)/relative(s)/friend(s), (unwanted) pregnancy, physical separation from spouse/child(ren), marital separation, divorce, break-up with friend of same/opposite sex, birth of (unwanted) child(ren), parent(s) or parent-in-law(s) moved in, etc.</p> <p>(7) death of someone close, death of pet, etc.</p> <p>(8) violence or crime victimization</p> <p>(9) poor health or sickness, acute physical illness, chronic condition or disability, other health-related problems, etc.</p> <p>(10) accident or injury</p>		

(continued)

APPENDIX (continued)

<i>Concept</i>	<i>Description of Item (Response Category)</i>	<i>Factor Loading</i>	<i>α</i>
	“Thinking about the last time you [had a personal problem you couldn’t handle by yourself], during [the] time [you were having trouble with that problem], how often . . . ?”		
Inner directed emotions	(1) . . . did you feel lonely?	.61	.84
	(2) . . . did you feel that you just couldn’t get going?	.70	
	(3) . . . were you depressed?	.76	
	(4) . . . were you jumpy or jittery?	.61	
	(5) . . . did you cry easily or have crying spells?	.55	
	(6) . . . did you feel like not eating or have a poor appetite?	.63	
	(7) . . . did you have restless sleep or trouble getting to sleep?	.66	
	(8) . . . did you actually feel physically sick?	.51	
Outer directed emotions	. . . did you lose your temper?		
Withdrawing Behavior from the family network	. . . did you not want to see or talk with anyone? (1 = never, 2 = hardly ever, 3 = not too often, 4 = fairly often, 5 = very often)		
	“How often do people in your family—including children, grandparents, aunts, uncles, in-laws and so on—help you out?” (1 = very often, 2 = fairly often, 3 = not too often, 4 = never, 5 = never needed help)		
	If 1, 2, or 3 → “How much help are they to you?” (1 = only a little help, 2 = a lot of help, 3 = a great deal of help) If 4 or 5 → “Would they help you if you needed help?” (1 = no, 2 = yes)		
Perceived social support			

“How often do people in your church or place of worship help you out?”
 (1 = often, 2 = sometimes, 3 = hardly ever, 4 = never, 5 = never needed help)
 If 1, 2, or 3 → “How much help are they to you?”
 (1 = only a little help, 2 = some help, 3 = a lot of help)
 If 4 or 5 → “Would they help you if you needed help?”
 (1 = no, 2 = yes)

“Would you say your family members are very close in their feelings to each other, fairly close, not too close, or not close at all?”
 “Think of the friends, not including relatives, that you feel free to talk with about your problems—would you say that you have many, some, a few, or no friends like that?”
 (1 = less than high school, 2 = high school, 3 = some college, 4 = college or more)
 (1 = under \$5,000, 2 = \$5,000 to \$9,999, 3 = \$10,000 to \$19,999, 4 = \$20,000 or more)
 “Are you married, divorced, separated, widowed, or have you never been married?”

Potential social support

Education

Family income in 1978

Marital status

NOTES

1. Larger effects of strain externalization on other- than self-directed emotions are expected given that other blaming "increases the individual's level of felt injury, creates a desire for retaliation/venge, energizes the individual for action, and lowers inhibitions, in part because individuals believe that other will feel their aggression is justified" (Agnew, 1992, p. 60).

2. Gurin and Hatchett (cited in Neighbors, Jackson, Broman, & Thompson, 1996) defined *racial consciousness* as "a set of beliefs about the relative position of African Americans in society. Specifically, consciousness is a collective interpretation of personal experience that includes power grievances about a group's relative disadvantaged status, which influences blacks to keep stress external rather than allowing it to become internalized" (p. 171).

3. We treat this behavior as "deviant" in a sense that it is noninstrumental and thus socially undesirable coping behavior, though not necessarily illegal or immoral.

4. The 1980 Census shows 53% females in the total Black resident population (U.S. Department of Commerce, 1981).

5. Including significant others as well as the respondent's life problems in our measure of strain is important given that an individual experiences "subjective strain" when adversity takes place not only to himself or herself but also his or her significant others, whether family members, relatives, or friends (Agnew, 2001).

6. While this certainly raises a legitimate concern about missing data, it is also important to recognize that such loss of cases should be expected when negative emotions are measured in terms of a respondent's emotional reactions to strain that actually happened to him or her. This is the so-called situational emotion, which Agnew's (1992) GST focused on. For example, when a researcher intends to measure situational anger in a survey, he or she will first ask respondents whether they experienced any strain during a specified period of time and then ask only those who answered affirmatively to report whether they reacted to the strain with anger. In such studies, those who reported no strain for whatever reason will have missing data on situational anger. This is the case with the current data.

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