

# COMMENTARY: TESTING THE GENERAL THEORY OF CRIME

TRAVIS HIRSCHI  
MICHAEL GOTTFREDSON

The source of any theory is an idea, an idea the theory itself attempts to articulate or express. As a result, tests of theory are tests of the articulation of an idea and, if done properly, of the value of the idea itself. The idea that serves as the basis for *A General Theory of Crime* (Gottfredson and Hirschi 1990) is the idea of control, an idea with deep roots in the thinking of ordinary people, an idea that has been used to make sense of a variety of observations in many fields of study. We are not the first to explore the implications for crime of the idea of control, and we doubt that we will be the last. We do not presume to own the idea, and do not see ourselves as spokesmen in its defense. We do, however, see sufficient merit in the idea to justify its continued exploration (for a significant recent contribution to this task, which differs in several respects from our own, see Roshier 1989).

We are therefore pleased to have the opportunity to comment on the issues raised by Grasmick, Tittle, Bursik, and Arneklev (1993), and by Keane, Maxim, and Teevan (1993) (both in this issue). Both articles force us to consider further our statement of control theory, and the kinds of empirical tests that might refine and extend it. Both are thoughtful attempts to understand and test the implications of the theory, and both lead to consideration of general issues. Because they do so, we are able to comment on some of these general issues rather than the specific research decisions that underlie the two articles.

## *MEASURING SELF-CONTROL*

One issue that transcends these articles and is therefore worthy of discussion in the context they provide is the measurement of self-control. The two articles approach this issue from very different perspectives. Grasmick et al. (1993) ask respondents to characterize themselves along a variety of dimen-

sions derived from our discussion of the characteristics of criminal acts said to be relevant to self-control. These self-characterizations are factor analyzed to assess their unidimensionality. Grasmick et al. then transform the items to standardize their variance and correlate their linear composite with self-report measures of force and fraud.

In contrast, Keane et al. (1993) measure self-control through direct observation of behavior (e.g., failure to wear a seat belt) and through self-reports of behavior suggesting low self-control (drinking). The measure of crime is blood alcohol concentration, a measure independent of self-reports.

Methodologically, the Keane et al. approach has much to recommend it. Although we would agree that multiple measures are desirable, behavioral measures of self-control seem preferable to self-reports. For one thing, the level of self-control itself affects survey responses. As mentioned by Hindelang, Hirschi, and Weis (1981), self-report measures, whether of dependent or independent variables, appear to be less valid the greater the delinquency of those to whom they are applied. Although researchers appear to assume that all crime theories predict the validity of survey methods, in fact theories differ dramatically on this score. In particular, control theories predict only modest validity for survey methods, and as such suggest severe upper bounds to the explanatory power of self-report methods. When this measurement constraint meets constraints imposed by the general unwillingness or inability of those low on self-control to participate in surveys (see Hirschi 1969), thereby restricting the range of both independent and dependent variables, all correlations may be seriously attenuated. We would not suggest that evidence relevant to the adequacy of control theory cannot be produced by survey methods; we would urge, however, that the theory's view of differences among potential respondents be taken into account in research design and measurement. Unless this is done, apparently modest results may in fact be highly supportive of the validity of the theory.

### *SAMPLING*

We also find the sampling approach in the Keane et al. article more consistent with testing requirements of the theory. Given the distribution of self-control assumed by the theory (highly skewed toward low self-control), ordinary sampling theory would suggest stratified disproportionate sampling to ensure sufficient numbers of low self-control subjects. General population samples, especially samples of adults, would be expected to have difficulty in producing adequate variation on the dependent variable (Gottfredson and Hirschi 1987, p. 610), especially when they rely on cooperative respondents

with fixed addresses. Longitudinal samples that suffer significant mortality are equally suspect as a basis of inference about crime causation because the losses they suffer are typically predictable on the basis of self-control (for an example, see Sampson and Laub 1990). The Keane et al. sample of course also loses some cases to nonresponse. But compared to most studies the losses are relatively small, and much to their credit they characterize their missing subjects on the dependent variable. Their "missing" cases clearly fit the expectations just described: 50% of the nonrespondents are "likely to be over the legal limit" of blood alcohol concentration.

### *SELF-CONTROL AS A PROPENSITY*

Another advantage of behavioral measures, in our view, is that they counter the tendency to translate the control concept at the core of our theory into a personality concept or "an enduring criminal predisposition." This feature of the Grasmick et al. work is the most disappointing tendency in responses to our theory. There may be in our theory an enduring predisposition to consider the long-term consequences of one's acts, but there is no personality trait predisposing people toward crime. That people are not specifically predisposed to crime is the fundamental assumption of control theories, and the central reason we will continue to argue that the theory cannot be integrated with theories taking the opposite point of view (cf. Grasmick et al. 1993, pp. 25-26).

We had hoped to show in *A General Theory of Crime* that the view attributed to us by Grasmick et al. is not the logic of control theory but is instead the logic of psychological positivism, a logic we explicitly reject. Control theory in fact denies the existence of personality traits that require crime. In our version, self-control is the (general) cause of crime; many apparent traits of personality may also be its byproducts. These byproducts may be rightly used to index levels of self-control, or they may serve as outcome variables, depending on the researcher's interests. For example, school performance or drug use, both of which are affected by self-control, can also measure individual differences in self control. Likewise, "temper" and "cautiousness" are caused by self-control, and they too may be used as indicators of it.<sup>1</sup>

Of course not all indicators are equal in value or clarity. In our view, the best indicators of self-control are the acts we use self-control to explain: criminal, delinquent, and reckless acts. To be sure, not all criminal or reckless acts are equally relevant to our theory. We try to distinguish legal definitions of crime from our own, and we do not say that people are always responsible

for the accidents that happen to them. Our theory does not claim that self-control (or self-control and opportunity) is the *only* cause of crime. On the contrary, we explicitly mention important causes of crime that self-control cannot explain (e.g., age). To invoke an analogy we have used before (Hirschi 1973): Trees and tides have gravity in common, but more than gravity is required to account for their peculiar features. To admit this in no way limits the generality of the theory of gravity. Unless this idea is understood, the complementary idea of opportunity cannot be understood.

In the view of the theory, opportunities to commit one or another crime or analogous acts are limitless. Opportunities to commit a particular crime may be severely limited, however (see our discussion of white-collar crime, Hirschi and Gottfredson 1987). Self-control and opportunity may therefore interact for specific crimes, but are in the general case independent. For example, driving under the influence presupposes access to alcohol and a car, but these conditions are generally available. Therefore, driving under the influence (DUI) should be largely a function of self-control. But not entirely. As Keane et al. note, where legal restrictions on the availability of alcohol are enforced (such as age restrictions on purchasing), the DUI rate is reduced. Further, in many cases, self-control and opportunity are not independent. In order to embezzle from banks, one needs first to be employed in one, a condition that depends in part on (high) self-control and its consequences. Access to information on how to smuggle drugs is enhanced by a term in prison, a condition too that depends in part on (low) self-control and its consequences. The generality of the theory thus stems from its conception of the offender, a conception that must be taken into consideration before situational or "structural" influences can be understood.

Our concept of self-control does not require that measures of crime and analogous acts be unidimensional. On the contrary, as the discussion above indicates, there may be a good deal of multidimensionality stemming from opportunity differences or situational factors (see Hindelang et al. 1981). If the primary consequences of self-control need not be unidimensional, there is certainly no expectation of unidimensionality in its byproducts. Physicality, for example, is not simply a consequence of lack of concern for the future. Today, in some circles, it may well indicate great self-denial, and be utterly inconsistent with the use of mood-altering drugs.

### CAUSAL ORDER

Both studies raise the problem of causal order, but take a different stance toward its resolution. Grasmick et al. suggest ultimate resort to a prospective

longitudinal design; Keane et al. suggest that causal order problems may be solved as well by conceptual analysis and by resort to collateral data. We side with Keane et al. on this issue (Hirschi and Gottfredson 1983; Gottfredson and Hirschi 1987). There are, in our view, at least four problems with the longitudinal solution to causal order questions. First, it distracts attention from alternative methods of solving the problem (putting off to the future questions that may very well be answered today). Second, in practice, it rarely if ever solves the problems it was ostensibly designed to solve. Indeed, no findings of substance have appeared in the literature subsequent to publication of our critique of the longitudinal study that can be attributed to the peculiar strengths of this design. Third, the method invariably magnifies apparent change at the expense of stability or continuity. For example, it tends to allocate self-selection biases to the effects of experience, thus creating the illusion of substantively important "within-individual change" (see Sampson and Laub 1990). Fourth, the methodological costs of the design continue to be ignored by those using and advocating it.

Neither study invokes an explicit counter hypothesis or theory on which to base judgments of the validity of our theory. In the absence of explicit competition, control theory cannot lose; nor can it win. In fact, given limitations of measurement and problems of sample selection, the variation due to time and chance will typically be larger than that "explained" by the theory. The tendency will be to award this residual to theories that have not been required to undergo operationalization or conceptual analysis focused on the specific issues raised by control theory. (As suggested above, we see no reason why some of this residual should not be awarded to the theory actually undergoing examination.) What, for example, is the concept that social learning theory would use to account for the stability of criminal and delinquent behavior over time and place? How do motive theories, theories that invoke envy, need, or specific aspiration (e.g., Wilson and Herrnstein 1985, pp. 316-17; Benson and Moore 1992, p. 268) handle the stability and versatility issues? More specifically, what do these theories have to say about the interaction of person and situation, or "personality trait" and opportunity? We stress these questions only because several recent contributions to the literature clearly question the factual premises on which our theory is based. Thus the stability effect has been questioned by research that compares the predictive validity of self-control with the ability of concurrent measures to predict crime, without specifying these concurrent variables in advance. The array of findings produced by this method is truly bewildering. In the absence of theoretically derived *predictions* that contradict the general theory, data apparently contrary to the theory carry little weight.

As Keane et al. note, our theory has also been criticized as tautological (Akers 1991). In our view, the charge of tautology is in fact a compliment; an assertion that we followed the path of logic in producing an internally consistent result. Indeed, that is what we set out to do. We started with a conception of crime, and from it attempted to *derive* a conception of the offender. As a result, there should be strict definitional consistency between our image of the actor and our image of the act. What distinguishes our theory from many criminological theories is that we begin with the act, where they normally begin with the actor. Theories that start from the causes of crime — for example, economic deprivation — eventually define crime as a response to the causes they invoke. Thus a theory that sees economic deprivation as the cause of crime will by definition see crime as an attempt to remedy economic deprivation, making the connection between cause and effect tautological.

What makes our theory *peculiarly* vulnerable to complaints about tautology is that we explicitly show the logical connections between our conception of the actor and the act, whereas many theorists leave this task to those interpreting or testing their theory, but again we are not impressed that we are unusual in this regard. One more example: Sutherland's theory of differential association says that offenders have peculiar skills and attitudes toward crime (predispositions?) learned from their subcultures. Crime is thus a reflection of those skills and attitudes. In this theory too, the connection between the image of the offender and the image of crime (both require particular skills and attitudes) is tautological.

In a comparative framework, the charge of tautology suggests that a theory that is nontautological would be preferable. But what would such a theory look like? It would advance definitions of crime and of criminals that are independent of one another (e.g., crime is a violation of the law; the criminal is a person denied access to legitimate opportunity). Several historically important theories cannot show an empirical connection between their definition of crime and their image of the offender, and must therefore be said to be false (Kornhauser 1978, p. 180).

Those charging us with tautology do not see the issue in this light. Thus Akers (1991) says

it would appear to be tautological to explain the propensity to commit crime by low self-control. They are one and the same, and such assertions about them are true by definition. The assertion means that low self-control causes low self-control. Similarly, since no operational definition of self-control is given, we cannot know that a person has low self-control (stable propensity to commit

crime) unless he or she commits crimes or analogous behavior. The statement that low self-control is a cause of crime, then, is also tautological. (p. 204)

It seems to us that Akers's concept of self-control differs fundamentally from our own. As noted above, we do not recognize a propensity to commit crime, nor do we see self-control as the motivating force underlying criminal acts. Rather, we see self-control as the barrier that stands between the actor and the obvious momentary benefits crime provides. We explicitly propose that the link between self control and crime is *not* deterministic, but probabilistic, affected by opportunities and other constraints.

Fortunately for the theory, Akers himself proposes that the problems he identifies can be resolved by operationalizing the concept of self-control. Thus, following the discussion above, he writes: "To avoid the tautology problem, independent indicators of self-control are needed" (Akers 1991, p. 204). The question then becomes, can independent indicators of self-control be identified. With respect to crime, we have proposed such items as whining, pushing, and shoving (as a child); smoking and drinking and excessive television watching and accident frequency (as a teenager); difficulties in interpersonal relations, employment instability, automobile accidents, drinking, and smoking (as an adult). None of these acts or behaviors is a crime. They are logically independent of crime. Therefore the relation between them and crime is not a matter of definition, and the theory survives the charges that it is mere tautology and that it is nonfalsifiable.

### CONCLUSION

Although we would not agree with Grasmick et al. that they have tested our theory under the most favorable circumstances, we are gratified that they made the effort and found the theory worthy of expansion, refinement, and elaboration. With a markedly different design and dependent variable, Keane et al. also report considerable support for the theory of self-control. Taken together, then, these studies suggest it may be worthwhile to explore further the idea that people are differentially controlled by the long-term consequences of their acts.

### NOTES

1. In the context of a discussion of white-collar crime, we have argued that position in the occupational structure is in part caused by level of self-control. Thus white-collar workers should

on the whole have higher levels of self-control than those outside the labor force. White-collar offenders should therefore have higher levels of self-control on the average than offenders among the unemployed. It seems obvious to us that their criminal records should therefore show fewer offenses and "offense types," a result that white-collar crime researchers writing in this journal (Benson and Moore 1992) take to be actually contrary to our theory! Our theory is also said to be called into question by the finding that white-collar offenders start "later . . . in life than common offenders" (Benson and Moore 1992, p. 266, citing Weisburd et al. 1990). In fact, a decade ago we pointed out that the connection between frequency and age of onset is a statistical necessity (Hirschi and Gottfredson 1983, pp. 573-79).

### REFERENCES

- Akers, Ronald L. 1991. "Self-Control as a General Theory of Crime." *Journal of Quantitative Criminology* 7:201-11.
- Benson, Michael L. and Elizabeth Moore. 1992. "Are White-Collar and Common Offenders the Same?" *Journal of Research in Crime and Delinquency* 29:251-72.
- Gottfredson, Michael R. and Travis Hirschi. 1987. "The Methodological Adequacy of Longitudinal Research on Crime." *Criminology* 25:581-614.
- . 1990. *A General Theory of Crime*. Stanford, CA: Stanford University Press.
- Grasmick, Harold G., Charles R. Tittle, Robert J. Bursik, Jr., and Bruce J. Arneklev. 1993. "Testing the Core Empirical Implications of Gottfredson and Hirschi's General Theory of Crime." *Journal of Research in Crime and Delinquency* 30:5-29.
- Hindelang, Michael, Travis Hirschi, and Joseph Weis. 1981. *Measuring Delinquency*. Beverly Hills, CA: Sage.
- Hirschi, Travis. 1969. *Causes of Delinquency*. Berkeley: University of California Press.
- . 1973. "Procedural Rules and the Study of Deviant Behavior." *Social Problems* 21:159-73.
- Hirschi, Travis, and Michael Gottfredson. 1983. "Age and the Explanation of Crime." *American Journal of Sociology* 89:552-84.
- . 1987. "Causes of White Collar Crime." *Criminology* 25:949-74.
- Keane, Carl, Paul S. Maxim, and James J. Teevan. 1993. "Drinking and Driving, Self-Control, and Gender: Testing a General Theory of Crime." *Journal of Research in Crime and Delinquency* 30:30-46.
- Kornhauser, Ruth. 1978. *Social Sources of Delinquency*. Chicago: University of Chicago Press.
- Roshier, Bob. 1989. *Controlling Crime*. Chicago: Lyceum Books.
- Sampson, Robert J. and John H. Laub. 1990. "Crime and Deviance over the Life Course: The Salience of Adult Social Bonds." *American Sociological Review* 55:609-27.
- Weisburd, David, Ellen F. Chayet, and Elin J. Waring. 1990. "White-Collar Crime and Criminal Careers: Some Preliminary Findings." *Crime & Delinquency* 36:342-55.
- Wilson, James Q. and Richard Herrnstein. 1985. *Crime and Human Nature*. New York: Simon & Schuster.