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Alcohol-related crime among college students: a review of research and fruitful areas for future work

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Alcohol-related crime among college students: a review of research and fruitful areas for future work

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College and alcohol are a potent mix. This paper reviews what is known and unknown about college students' involvement in alcohol-related crime as both offenders and victims. There are three types of alcohol-related crime: psychopharmacological; economic compulsive; and systemic. Research on college students, however, has focused entirely on the first type. Why are the latter two types untouched in the literature? After reviewing research on alcohol-involved psychopharmacological crime among college students, we address this question by drawing on Lewis & Lewis' taxonomy of 'negative evidence.' We outline and assess reasons for the dearth of information on these topics, and draw on these explanations to suggest fruitful areas for future research.

Keywords: alcohol-related crime; drugs/crime nexus; college students; negative evidence; review

Introduction

For many students, the 'college years' are a time of newfound freedom.[1] They go to school for an education, of course, but also to have a good time. Alcohol is their party favor of choice (Herman-Kinney & Kinney, 2013; Johnston, O'Malley, Bachman, & Schulenberg, 2011; National Institute of Alcohol Abuse and Alcoholism [NIAAA], 2002; Pezza & Bellotti, 1995). Yet, while drinking is a college pastime, it is not without problems (Dowdall, 2013; Weiss, 2013). The majority of campus crimes involve alcohol (Bromley & Reaves, 1999; Commission on Substance Abuse at Colleges and Universities [CSACU], 1994; Fisher, Sloan, Cullen, & Lu, 1998; Sloan, 1994; Sloan, Lanier, & Beer, 2000; Wechsler, 1996, 2001a; Wechsler, Davenport, Dowdall, Moeykens, & Castillo, 1994). Nationwide in 2010, for instance, there were more than 30,000 student arrests for offenses related to alcohol, 90% of which occurred on campus, and more than 178,000 disciplinary actions taken against students for alcohol violations (US Department of Education, Office of Postsecondary Education, 2010; see also Dowdall, 2013; National Center for Education Statistics [NCHA], 2011).

Students get in trouble for crimes such as underage drinking, using a fake ID to purchase alcohol, and driving a motor vehicle while intoxicated. Estimates from

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the 2002–2005 National Survey on Drug Use and Health survey show that among full-time college students who are underage, 57.8% of them used alcohol in the past month, and 40.1% binge drank (National Survey on Drug Use and Health [NSDUH], 2006; see also Core-Institute, 2012). A reason for these high rates is that half of underage college students report alcohol is 'very easy' to acquire (Wechsler, Lee, Nelson, & Kuo, 2002, p. 228). One- to two-fifths of them do so by using a fake ID to make purchases from a legal establishment (Durkin, Wolfe, & Phillips, 1996; Schwartz, Farrow, Banks, & Giesel, 1998, p. 26; see also Fabian, Toomey, Lenk, & Erickson, 2008; Wechsler, Lee, Nelson, et al., 2002). And literally millions of college students drink and drive each year (Hingson, Zha, & Weitzman, 2009), which causes serious injury and death (Center for Disease Control and Prevention [CDC], 2013).

The above crimes are all kinds of alcohol crime: offenses that are inextricably tied to alcohol. *Alcohol-related crime* is different – and is the focus of the present paper. Alcohol-related crime refers to offenses in which alcohol does not play a definitional role in the offense (as that is alcohol crime) but is part of the picture (Allen & Jacques, 2013). There are three types of alcohol-related crime: psychopharmacological; economic compulsive; and systemic (Goldstein, 1985). Psychopharmacological crimes are those involving an intoxicated offender or victim. Economic compulsive crimes are predatory offenses motivated by the desire to obtain alcohol for personal use. Systemic crimes include victimizations and offenses that occur in the course of blackmarket activity. Examples of these three types are, respectively, an intoxicated person punching someone; shoplifting alcohol from a liquor store; and mobsters fighting over control of the alcohol trade during the Prohibition Era.

This paper reviews what is known about alcohol-related crime among college students. We advance understanding by considering not only the areas that have been studied but also those that have not. After summarizing findings on alcohol-related crime, we outline and discuss the connections that have not received attention in the literature and suggest reasons for the lack of inquiry on these topics; the purpose of this latter section is to advance the field by suggesting fruitful areas for future work, which are summarized and elaborated on in the concluding section. This exploration of the unknown is cast in the conceptual and theoretical framework of Lewis and Lewis (1980), described below.

Negative evidence in social science research

Lewis and Lewis' (1980) article *The Dog in the Night* is concerned with 'the significance of a thing's absence' (p. 545) – or what they term negative evidence – in social science research. Their article begins with an excerpt from a fictional work, *Silver Blaze*, that involves Sherlock Holmes and Colonel Ross going over the peculiarities of a crime scene:

> [Colonel Ross:] Is there any other point to which you would wish to draw my attention?
>
> [Sherlock Holmes:] To the curious incident of the dog in the night-time.
>
> [Colonel Ross:] The dog did nothing in the night-time.
>
> 'That was the curious incident,' remarked Sherlock Holmes.

The purpose of this story is to suggest that a thing's absence can be enlightening. Typically in social science research, the emphasis is placed on the collection and dissemination of positive evidence – i.e. a documented action (e.g. alcohol use and crime) or characteristic (e.g. motivation and culture). Obviously, positive evidence is an indispensible part of scientific inquiry. But not attending to negative evidence is problematic because it can lead theories to appear more valid than they are in reality, which can stunt theoretical development (see also Duneier, 2011; Lewis & Lewis, 1980; Popper, 2002 [1959]).

There are seven types of negative evidence (Lewis & Lewis, 1980). The types are distinguished, in the first place, by whether the absence is attributed to the non-occurrence of events or the non-reporting of them; secondly, by whether the non-reporting is done by a person under study or the researcher disseminating the results; and thirdly, by whether the non-reporting is due to being unaware of something or another reason. These distinctions result in 'a taxonomy of … differing types … each of which represents a unique way in which evidence is non-existent, ignored or overlooked' (p. 546).

Type I negative evidence consists of actions that do not occur and characteristics that do not exist.[2] For example, in her field-based study of a suburban community, Baumgartner (1988) finds there to be hardly any vigilantism or formal control among members of this group. Rather than ignore these non-events, she dedicates much of her analysis to explaining why they do not occur.

Type II is the product of a population not being aware of events or characteristics and, thus, not reporting them. Research based in cognitive psychology, for instance, finds that while many police officers consciously hold antiracism views, they also have unconscious biases toward Blacks that lead to more vigorous policing of this group (Harris, 2007; Smith & Alpert, 2007).

Type III results from a population wishing to hide events or characteristics and, therefore, not reporting them at all or in an entirely forthcoming manner. As explained by a 'specially trained fieldworker' who recruits participants for studies of active offenders, 'Nobody is going to tell you everything they do. […] you can't ever expect them to tell you the whole truth … They'll tell you some shit and some of it might be mixed up or something' (Jacques & Wright, 2008a, p. 32).

Type IV includes commonplace events or characteristics that are overlooked and so not reported; i.e. the information is known by the population and the researcher, but only subconsciously. These morsels of social life have a substantial impact on daily interaction, but, ironically, they are hard to uncover for the reason they are ubiquitous. Much of Goffman's (1963) work, such as his nuanced portrayal of stigma management's seemingly instinctual components, serves as an example of research that overcame the difficulties inherent in studying this type of negative evidence.

Type V is non-reporting consequent of the researcher's idea set distorting data collection or representations of the recorded data. This can be the outcome of '[p]reconceived notions of where to look and what sorts of data to look for' and also 'overzealous commitment to a particular theoretical orientation' (Lewis & Lewis, 1980, p. 552). In his seminal work on white-collar crime, Sutherland (1940) combats this sort of negative evidence by pointing out that many data-sets do not include information on 'criminal behavior of persons not in the lower class,' such as that 'of business and professional men'; in turn, he argues, this leads crime to be painted as more of a lower-class problem than it is (for a discussion of Sutherland's thesis, see Merton, 1968, p. 144–145).

Type VI is non-reporting due to a researcher's earnest impression that specific incidents are, at best, irrelevant or, at worst, unwarrantably detrimental to an analysis. Such data is known as 'noise': meaningless or noninterpretable information that if included in analyses may distort findings. Such cases are often labeled as 'outliers' and dropped from analyses. Yet as Sullivan (2011) demonstrates, 'outliers can undergo additional scrutiny or "detective work" relative to the theory of interest … [that] capture information that is substantially interesting' (p. 909).

Finally, *Type VII* is conscious non-reporting by the researcher attributable to non-analytic factors; such influences include rhetorical conventions, ethical concerns (e.g. not providing identifiable information of participants), the unethical sequestering of data that damages one's argument, and the view that nonsignificant findings are unimportant. The cumulative effect of this latter factor has been considered in-depth by meta-analysts. In the course of statistically summarizing and testing the significance of explanatory variables, they must pay careful attention to the 'file drawer' effect: null findings are often left unpublished and thereby distort the strength of evidence bearing on a theory (Rosenthal, 1979; see, e.g. Pratt & Cullen, 2000).

To summarize, social science depends heavily on positive evidence, but negative evidence is useful too (Lewis & Lewis, 1980). The difficulty is to 'see through' what is there (positive evidence) to what is not there (negative evidence); in contemporary physics, this amounts to the hunt for 'dark matter.' In the case of Type I negative evidence, the researchers' objective is to explain why something does not exist. For Types II and IV, the goal is to somehow collect data usually held in the unconscious mind of participants and researchers.[3] For Type III, the aim is to obtain data that participants are apprehensive to fully discuss. And for Types V, VI, and VII, researchers must overcome their preconceived notions of how to collect data, analyze it, and report findings.

Positive and negative evidence of alcohol-related crime among college students

For a narrative literature review, as compared to a meta-analysis (see, e.g. Pratt & Cullen, 2000), the goals are to summarize what has been learned in prior research and to identify fruitful areas for future research. Often, the areas suggested for future work are those that have remained unexplored. Making the most fruitful suggestions, however, requires a useful conceptual framework for organizing the literature, as otherwise the recommendations will prove too broad or narrow. Goldstein's (1985) tripartite framework is the best typology for understanding alcohol-related crime among college students, as it is widely recognized as the leading one of its kind owing to its power, comprehensiveness, generality, and simplicity (MacCoun, Kilmer, & Reuter, 2003). Additionally, making fruitful suggestions is best accomplished by considering why it is that particular areas have been left unexplored. That is important because different kinds of negative evidence call for different 'solutions.' Thus, in reviewing what is not known (i.e. negative evidence) about alcohol-related crime among college students, we draw on Lewis & Lewis' (1980) seven types of negative evidence to conjecture why particular areas are untouched. This analysis provides the basis for our suggestions about what sorts of research to conduct moving forward.

Positive evidence: psychopharmacological crime

Positive evidence consists of events and characteristics that exist and have been reported (Lewis & Lewis, 1980). Although there are three types of alcohol-related crime, only psychopharmacological crimes, or what Weiss (2013) labels 'intoxication crimes,' have been studied among college students; these are defined as events involving an intoxicated offender or victim.[4] That research suggests that the majority of campus crimes – beyond simple alcohol crimes – involve intoxicated offenders and victims (CSACU, 1994; Wechsler, 1996, 2001a; Wechsler et al., 1994; Weiss, 2013).[5]

Psychopharmacological offending

Alcohol use increases criminal behavior by lowering drinkers' inhibitions, helping them cope with the risks of offending, and making them more confrontational (Fagan, 1990; Felson & Staff, 2010; Parker & Auerhahn, 1998). What matters is not simply whether alcohol is consumed, but rather how much (Felson & Staff, 2010; Felson, Teasdale, & Burchfield, 2008). A single beer, glass of wine, or shot of liquor are unlikely to increase a person's chance of offending or being victimized. However, the more drinks a person consumes at one time – i.e. the bigger the dose – then the more likely is the individual to commit a crime.

Violent offenses are a broad type of psychopharmacological crime. Universities experience few violent crimes, but an overwhelming proportion – perhaps even 95% – of the cases involve an intoxicated offender (CSACU, 1994; Fox & Hellman, 1985; Sloan, 1994). From 1998 through 2001, more than 696,000 assaults were perpetrated by intoxicated college students (Hingson, Heeren, Zakocs, Kopstein, & Wechsler, 2002; NIAAA, 2002). One study found that about 17% of all students became involved in a fight after consuming alcohol (Engs & Hanson, 1994). And while not commonplace, students' alcohol consumption has been linked to assaults committed during so-called 'student party riots' (Madensen & Eck, 2006). These mass-offense events erupt on college campuses or nearby and involve a large number of intoxicated students; partygoers fight with each other and responding police officers.

Among students, intoxication has perhaps the strongest relationship to intimate crimes. Averaged, a variety of studies suggest that half of sexual assaults are committed by inebriated men; at the high end, this characterizes 80% of recorded incidents (Abbey, Zawacki, Buck, Clinton, & McAuslan, 2001; Zawacki, Abbey, Buck, McAuslan, & Clinton-Sherrod, 2003). Another sort of intimate crime is dating violence. In their review of the literature on this topic, Shorey, Stuart, and Cornelius (2011) report that research consistently finds persons who binge drink are more likely to have ever committed dating violence as well as to commit it on a more frequent basis. Stalking is a third sort of intimate offense. Yet again, the empirical evidence suggests that drinking increases a person's likelihood of perpetrating this crime (Dowdall, 2013; Logan, Leukefeld, & Walker, 2000).

Intoxication also has a strong relationship to nonviolent property offenses and public order offenses among college students (Weiss, 2013). Most campus crimes that follow alcohol use are property offenses (Bromley, 1995; Fox & Hellman, 1985; Jennings, Gover, & Pudrzynska, 2007; Reaves & Goldberg, 1996; Robinson & Roh, 2007; Sloan, 1994; Sloan et al., 2000). Up to 80% of campus vandalisms are alcohol-related (CSACU, 1994). About 11% of students report vandalizing

school property after drinking (Engs & Hanson, 1994; Wechsler, Lee, Hall, Wagenaar, & Lee, 2002). Two common examples of public order offenses are public urination and public nudity. Students who binge drink on a more regular basis have been found to be more likely to commit these unsightly crimes (DuRant et al., 2008). And residents who live near colleges where binge drinking is common report greater problems with noise, vandalism, and public urination (Wechsler, Lee, Hall et al., 2002).

Psychopharmacological victimization

Intoxication also increases a person's odds of being victimized, both violently and nonviolently. Drinking can make people more 'obnoxious, annoying, and/or offensive in their appearance, conduct, and speech' and thereby invite trouble (MacCoun et al., 2003, p. 70; Parent & Newman, 1999). They may also become less aware of risks, less likely to take precautions against such risks, lose the ability to resist, and appear more vulnerable to offenders (Felson & Burchfield, 2004; Graham, Bernards, Wilsnack, & Gmel, 2011; Lasley, 1989; MacCoun et al., 2003; Steele & Josephs, 1990).

Research indicates that students' alcohol consumption increases the likelihood of being violently victimized, stolen from, and having property vandalized. A series of articles by Mustaine and Tewksbury inform understanding of intoxication and these sorts of victimization (see also Weiss, 2013). Based on a survey of about 1500 college students, Mustaine and Tewksbury (1998a) find students are more likely to be robbed and assaulted if they drink at all, on a frequent basis, or have been drunk in public. A separate article by those researchers is one of the few to examine whether college students' drinking affects their risk of property victimization (Mustaine & Tewksbury, 1998b). They find that frequent alcohol consumption increased the odds of being the victim of a major theft (i.e. property worth more than $50). Additionally, being drunk in public explained both minor thefts (i.e. property worth less than $50) and major ones. For vandalism victimization, these researchers find that persons who frequently drink during the week are more likely to experience this problem. However, the authors point out that the relationship between alcohol consumption and this kind of victimization is relatively weak because 'whether or not a person is drinking … their property remains the same' (p. 94).

As with intimate offenses, alcohol consumption explains victims' odds of being sexually victimized, experiencing dating violence, and being stalked. It has been demonstrated over and over again that drinking is strongly correlated with sexual assault victimization (Dowdall, 2013; also see Abbey, 1991; Krebs et al., 2009; Testa & Parks, 1996; Weiss, 2013). This applies not only to women but men too (Tewksbury & Mustaine, 2001). The aforementioned comprehensive review of dating violence reports that drinking increases not only the odds of offending but victimization as well (Shorey et al., 2011). And the risk of being stalked is associated with consuming alcohol, drinking at home, and getting drunk in public (Logan et al., 2000; Mustaine & Tewksbury, 1999).

Negative evidence: economic compulsive and systemic crime

In this paper, negative evidence is *not* – to be clear – a finding that a theory is invalid; such data would be 'positive evidence' in Lewis and Lewis' (1980)

lexicon. For them, negative evidence refers to the absence of an event or characteristic. This absence can be due simply to their non-occurrence. Alternatively, a particular kind of event or characteristic may exist but not be reported or recorded by participants or researchers, which can happen for a variety of reasons.

To our knowledge, no prior research has examined alcohol-involved economic compulsive and systemic crimes among college students. Recall that economic compulsive crimes are predatory offenses motivated by the desire to obtain alcohol for personal use (Goldstein, 1985). Outside the alcohol context, an example is stealing money in order to purchase heroin (see, e.g. Ball, Shaffer, & Nurco, 1983). Systemic crimes are victimizations and offenses that occur in the course of illicit market activity (Goldstein, 1985). Examples of this include the robbery of a drug dealer and that individual's vigilante response (see, e.g. Jacques & Wright, 2008b).

Economic compulsive crime

What might explain the lack of literature on college students' stealing to obtain alcohol? Three possibilities are that college students simply do not engage in this behavior (Type I negative evidence), are unaware that they commit this crime (Type II), or lie about their involvement in it when asked (Type III). All of these options seem implausible, however. A degree of common sense suggests that at least some college students steal in order to drink; that they would remember doing so; and would fess up, especially given that they admit committing a variety of other alcohol-related crimes – as we reviewed in the prior section. A fourth explanation of this negative evidence is that the stealing of or for alcohol is so common as to escape the conscious attention of researchers (Type IV); but this seems unlikely too because this behavior has been studied among middle and high school students, as described two paragraphs below. Another explanation is that researchers have been collecting information on economic compulsive thefts by college students but do not report it because they deem it as irrelevant or detrimental for one reason or another (Types VI and VII). But why that would be the case is unclear, as one of the primary interests of persons studying alcohol use among college students is its adverse consequences; theft is one such consequence due to its potential legal costs to offenders and financial costs to victims.

The one type of negative evidence that does appear to hold promise for answering the question posed above is Type V. The most likely explanation, in our estimation, is that researchers' idea set (combined with their closed-ended surveys) preclude questions that would get at the extent of alcohol thefts or thefts intended as a means to obtain money to purchase alcohol. For instance, the premier survey on college alcohol use – that of The Harvard School of Public Health College Alcohol Study – did not include a question or response category capable of capturing whether respondents were stealing alcohol (Wechsler, 2001b). Future research, then, should seek to include these options in order to ascertain the extent, causes, and consequences of college students' alcohol-related economic compulsive crimes. With that said, it is an empirical question as to whether college students do in fact steal alcohol at any discernable rate (Type I), remember doing so (Type II), or are willing to admit it (Type III); thus future studies should not ignore these possibilities in their search for positive evidence of this particular alcohol-related crime.[6]

It is important to note that research has explored alcohol thefts among *middle school* and *high school* students. An interview-based study reports that 'alcohol for initial drinking was occasionally acquired from parents' supply in the home (with our without permission)' (Wagenaar et al., 1993, p. 461). Another study of high school students detailed their motives for and methods of shoplifting alcohol from stores (Jennings, Friese, Moore, & Grube, 2011). There does appear to be a relationship between age and the propensity to steal alcohol. A survey of 12th graders found that about 10% of participants acquired alcohol by stealing it from home; about 5% from a friend's home; and 2% from stores (Harrison, Fulkerson, & Park, 2000; see also Friese, Grube, Seninger, Paschall, & Moore, 2011). Among 9th graders those rates were considerably higher, with one-third stealing from home, almost one-fifth from a friend's home, and roughly 6% from stores (Harrison et al., 2000). A separate study of middle school students who drink revealed that between 6th and 8th grade they became two to three times more likely to steal alcohol from one's own home or that of a friend (Hearst, Fulkerson, Maldonado-Molina, Perry, & Komro, 2007; see also Chen, Gruenewald, & Remer, 2009). Note that the positive evidence uncovered in these studies suggests that the absence of such data on college students is unlikely to be the result of Type I, Type II, or Type III negative evidence.

Taken together, the above studies of middle and high school students suggest that the relationship between age and stealing of or for alcohol (i.e. economic compulsive crimes) may take on an inverse-U shape (i.e. curvilinear): youngsters increasingly commit this crime up to a certain age – perhaps 15 or 16 – at which point their involvement begins to tail off. This could be due to a number of factors; older persons, for instance, may have more of-age associates to buy alcohol on their behalf, and they also grow to look older and thereby become better able to buy from legal establishments – with or without a fake ID. An implication of the hypothesis that there is an age-crime curve (cf. Gottfredson & Hirschi, 1990) for alcohol-involved economic compulsive crime is that high school students are more likely than college schools students to commit this offense; although, again, we doubt that the latter group is entirely uninvolved in this activity. However, an alternative hypothesis is that college students are more likely to steal to obtain alcohol due to having greater opportunities to commit this offense (for a study of opportunity and alcohol use among students, see, e.g. Mustaine & Tewksbury, 1998a). Relative to high school students, college students are surrounded by more roommates and 'dormmates,' attend more parties, and are admitted into more bars and clubs; these people and places provide opportunities for persons to steal alcohol, be it by taking a few beers, an entire keg, or by walking out on one's tab. College students may be motivated to do so if they are still under the legal drinking age and see theft as a useful way to procure their supply. Or, more generally, their motivation to steal may spring from the perception of themselves as too low in income – and perhaps too deep in debt – to pay for everything they consume. At present, these are just hypotheses; future research should seek to test them and develop alternatives.

Systemic crime

Another question is what might explain the lack of literature on alcohol-involved systemic crimes among college students? While the answer is ultimately one for

future research to deliver, we believe – for the same reasons outlined above – that college students would be aware of their involvement in such events if they occur (Type II), not entirely lie about such experiences (Type III), and that these events are striking enough as to be consciously stored (Type IV) as well as worthy of reporting in research reports (Types VI and VII). The lack of information on alcohol-involved systemic crime is most likely to be Types I or V negative evidence, although the latter, we conjecture, is more plausible. Below, we outline our reasoning.

For an offense to be defined as a systemic crime, it must be a predatory or retaliatory action tied to *illicit* drug trade (Goldstein, 1985). Predatory acts are those principally motivated by a desire to obtain wealth; this may be accomplished via violence (e.g. robbery), deception (e.g. fraud), and stealth (e.g. burglary) (Jacques & Wright, 2008b). Retaliatory acts are those primarily intended as a form of social control (Black, 1983); this can involve violent (e.g. assault) and nonviolent responses (e.g. vandalism). Prior research demonstrates that illicit drug markets are a hotbed of predatory and retaliatory actions because dealers and buyers alike have relatively little access to formal means of dispute resolution, which makes them attractive targets for predators, and more dependent on retaliation for obtaining justice, recovering lost resources, and deterring further victimization (Jacobs, 2000; Jacques, 2010; Topalli, Wright, & Fornango, 2002).

At first glance, it may seem as though systemic crimes are, by definition, untied to alcohol because it is a legal drug. But it is not legal for all persons or in all situations. It is illegal for persons under 21 years of age to consume, possess, or buy alcohol. Moreover, it is illegal for persons *of any age* to provide alcohol to minors. Given the rate of underage drinking in the USA, it stands to reason that there is a sizable blackmarket in this substance. As already noted, half of underage college students report alcohol is very easy to obtain (Wechsler, Lee, Nelson, et al., 2002, p. 228). The most common methods of obtaining it are 'from another student who was of the legal drinking age' and 'from another student under the age of 21' (p. 228). The fact that there is a substantial underground trade in this substance means there are opportunities for systemic crimes to occur.

Despite the opportunity, it could be that college students do not commit such offenses nor become the victim of ones tied to illicit alcohol trade (Type I), or, at least, that these events are extraordinarily uncommon. The discovery that such events do not occur would be important by pointing to broader sociological processes at work (cf. Baumgartner, 1988). Perhaps a blackmarket trade overshadowed by a legal one in the same substance inhibits systemic crimes; in other words, it could be that, in practice, people only lose legal access when trading in a substance that is fully prohibited (e.g. as is crack-cocaine), which means persons in a quasi-illegal market would not be especially targeted by predators or in special need of retaliation. Alternatively or in addition, the potential absence of alcohol-involved systemic crimes among college students could be attributed to the characteristics of this population. Tellingly, prior research on a sample of college drug dealers (i.e. those of fully prohibited substances) has found them to be relatively unwilling to rip-off customers or to handle their victimizations with vigilantism (compare Mohamed & Fritsvold, 2010 with Jacobs, 1999, 2000). Future research should seek to determine (1) whether college students experience – as victims or offenders – predation and retaliation in the course of trading alcohol, and (2) if not, what explains the absence of such occurrences.

If future research does uncover such systemic crimes then the absence of such information is probably Type V negative evidence: events that have not been collected by researchers due to their preexisting idea set (and reliance on structured and closed-ended surveys that impede emergent findings). It could be that researchers have not sought out data on alcohol-involved systemic crimes among college students because such instances are not the focus of their studies. Yet given the focus of much prior research on the undesirable consequences of college students' drinking, the lack of attention to systemic victimizations and offenses would be an oversight. Another possible reason for the lack of data is that researchers have made unwarranted assumptions about the nature of blackmarket trade. As explained above, not every blackmarket involves a fully prohibited substance; alcohol is one example (cigarettes are another, see, e.g. Hornsby & Hobbs, 2007). If researchers do not consciously attend to that fact, systemic crimes occurring in such quasi-legal markets are less likely to be studied. A third possibility is that researchers have been obtaining such information yet not collected enough details to describe the nature of offenses and victimizations (i.e. whether they are systemic or not); research finds, for instance, that students who drink more often are more likely to be involved in violence or theft as offenders and victims, but whether those events are at all systemic (or economic compulsive for that matter) is unknown. At this point, it is important to note that the three kinds of alcohol-related crime are not mutually exclusive, as all three can happen simultaneously; an example would be a drunk person stealing alcohol from someone who is under the legal drinking age in order to continue 'the party' (see Goldstein, 1985, p. 501).

If future research determines that college students are involved in predatory and retaliatory acts tied to illicit alcohol trade then another important line of inquiry is to determine the rate, causes, and effects of these events. Some hypotheses can be made by drawing on findings of prior research on systemic crime tied to fully prohibited substances: At the micro-level, illicit alcohol traders are more likely to defraud persons who are further from them in relational distance (e.g. strangers rather than friends) and who are low in status, as measured by anything from rank (e.g. freshman vs. seniors) to knowledge of going market rates (e.g. informed about the normal price of a liquor bottle) (Jacques & Wright, 2010). Retaliation is most likely to follow victimizations that are relatively serious and interpreted by the victim as a major affront to their identity and likely to result in further victimizations if not retaliated against (Topalli et al., 2002). And at the macro-level, illicit alcohol trade among college students will involve more predation and retaliation when they operate in a community context that has relatively high levels of crime, especially violent crime, overall (Zimring & Hawkins, 1997). This string of hypotheses, to be clear, contains but a few possibilities. There is much to be gained by determining the validity of these propositions – and by developing alternatives – among college students who illegally trade alcohol; such knowledge would touch not only upon that specific topic but also inform the broader study of drug markets and systemic crimes.

Conclusion and fruitful areas for future work

Alcohol is a significant feature of college life. Students not only drink on a frequent basis, but also in large amounts. While they may perceive that to be fun, it is also a source of trouble. Students put themselves at legal risk by drinking

underage, buying alcohol with a fake ID, and driving under the influence. But the problems do not end there. Prior research consistently demonstrates that students' alcohol consumption increases their likelihood of committing violent, intimate, property, and public order offenses and also of experiencing violent and nonviolent victimization; these are known as psychopharmacological crimes.

However, the two other kinds of alcohol-related crime – economic compulsive and systemic – have not been studied among college students. In other words, we do not know how often, why, and to what effect students steal in order to obtain alcohol or become involved in predation and retaliation in the course of making illicit alcohol trades. This negative evidence could be due to a number of reasons. We suggested that students are almost surely stealing alcohol, and that the absence of data on this topic is the outcome of researchers not collecting it (i.e. Type V negative evidence). We made the same conjecture about systemic crimes among students who illicitly trade alcohol, adding that the negative evidence could also be due to the actual non-occurrence of these crimes (Type I). For both types of alcohol-related crime, we listed a series of hypotheses that may explain these events and called for their testing as well as the development of alternative propositions through the collection and analysis of quantitative and qualitative data. With an eye toward future research, below we specify research questions that should prove fruitful.

For economic compulsive crime, the first question is whether or, more exacting, what percent of college students ever or regularly steal alcohol from their parents, friends, roommates, dormmates, people at parties, and stores? What percent of students steal money from any of those persons in order to buy alcohol? How frequently do students not pay their alcohol tabs at bars and clubs? And are there any other people or places from which students steal in order to obtain alcohol? The second line of inquiry would aim to uncover and explain variation in the answers to such questions. What kinds of students are most likely to engage in this kind of theft? In what situations is it most likely to occur? Who or what businesses are the most frequent targets? Is this crime a bigger problem at some colleges than others? The third research path is concerned with the negative consequences of these thefts. What is the cost to victims? Is there a victim-offender overlap in which having one's alcohol stolen increases that person's odds of stealing someone else's alcohol? How often do students get caught for this crime and what are the informal, institutional, and formal punishments? And what explains differences between situations, people, and communities in these outcomes?

Research on systemic crime should address similar questions with a slightly altered focus. Again, the first objective should be to determine the extent of the problem. For instance, what percent of illicit alcohol trades involving students result in a fraud of some kind? What percent of underage students have had alcohol stolen from them? What percent of students have stolen alcohol from an underage peer? And how frequent are any of these occurrences? Next, researchers should attempt to determine whether and why some people or groups are more involved in these events, and in what situations these crimes are most likely to occur. Which students are most apt to rip-off others or be ripped-off in the course of making an illicit alcohol trade? Who is most likely to steal alcohol from an underage person? What kinds of underage alcohol possessors are most likely to be stolen from? Is this a bigger problem at some colleges than others? The third set of research questions is about the aftermath of such predatory offenses. How often, if at all, do victims report these offenses to the police or another authority figure? Tolerate such

affronts? Avoid or try to negotiate with the offender? What about retaliation, both violent and nonviolent? And what explains the variable responses – situational-, individual-, or group-level factors?

For academic and practical reasons, it will be important to explore how efforts aimed at controlling alcohol consumption – and thereby reduce psychopharmacological crimes – among college students may inadvertently increase their involvement in economic compulsive and systemic crimes. In her book *Party School*, Weiss (2013) describes some of the measures being implemented on and around campuses nationwide:

> [M]any universities and colleges have tried to curtail excessive drinking by making it more difficult for students to obtain large amounts of alcohol. One method for making it harder to access liquor is to restrict alcohol-related businesses from operating in neighborhoods closest to campus … Another strategy … is to make alcohol – both beer and hard liquor – more expensive to purchase by raising prices, thereby making binge drinking difficult to accomplish for students on a budget. They also suggest reigning in the proliferation of liquor stores and outlets that provide cheap alcohol in bulk, and make it too easy for students to buy and consume large amounts of liquor. Finally, … [another approach is] limiting high-volume drink promotions at student bars and clubs such as happy hours and drink-till-you-drop specials. (p. 143)

The underlying strategy of these efforts is to decrease alcohol use by making it more difficult and expensive to obtain this substance. Yet by doing so, stealing alcohol becomes more rational, and trading it illegally may become more necessary. Thus, while these rational efforts to curb student drinking may succeed and even reduce intoxication crimes, whether they will have the unintended consequence of increasing thefts and retaliation is another piece of negative evidence.

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Notes

1. Unless otherwise specified, ‘college students’ are simply referred to as ‘students’; ‘intoxication’ refers only to ‘alcohol intoxication;’ and ‘literature’ refers only to ‘scientific literature.’
2. Lewis and Lewis (1980) refer strictly to the absence and non-reporting of evidence. We have slightly amended their argument by also including the absence and non-reporting of characteristics, such as age and race, among many other traits.
3. Types II and IV missing data are similar. The difference, according to Lewis and Lewis (1980), is that the former is due to the populations’ culture, whereas the latter is due to the repetition of a behavior making it practically invisible to the untrained eye. Another difference is that Type II relates strictly to what is known by the population, but Type IV involves the unconscious state of both the population and the researcher.
4. It is possible that the positive evidence reviewed in this section has somehow been distorted by negative evidence of Types II through VII. Also, some of the studies we review have stronger methodologies than others. We do not attempt to assess the impact of negative evidence or differing methodologies on findings because such tasks are far better suited to a meta-analysis than a narrative review. While that is in some respects a limitation of the present paper, it is not particularly problematic because our primary goal is to outline what has not been studied more so than it is to consider the strength and certainty of prior findings.

5. For the general population, research shows that alcohol is more often involved in psychopharmacological crimes than any other drug (see, e.g. Goldstein, Brownstein, Ryan, & Bellucci, 1989, 1997), and that it is more strongly linked to violent than nonviolent offenses (Fagan, 1990; Felson & Staff, 2010; Felson, Savolainen, Aaltonen, & Moustgaard, 2008; Parker & Auerhahn, 1998).
6. To be clear, once again, positive evidence could be the finding that such crimes are not committed.

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