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How do researchers categorize drugs, and how do drug users categorize them?

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Abstract

This paper considers drug classifications and terms widely used in US survey research, and compares these to classifications and terms used by drug users. We begin with a critical review of drug classification systems, including those oriented to public policy and health services as well as survey research. We then consider the results of a pile sort exercise we conducted with 76 respondents within a mixed method study of Southeast Asian American adolescent and young adult drug users in urban Northern California, USA. We included the pile sort to clarify how respondents handled specific terms which we understood to be related to Ecstasy and methamphetamines. Results of the pile sort were analyzed using graphic layout algorithms as well as content analysis of pile labels. Similar to the national surveys, our respondents consistently differentiated Ecstasy terms from methamphetamine terms. We found high agreement between some specific local terms (*thizz*, *crystal*) and popular drug terms, while other terms thought to be mainstream (*crank*, *speed*) were reported as unknown by many respondents. In labeling piles, respondents created taxonomies based on consumption method (in particular, *pill*) as well as the social contexts of use. We conclude by proposing that divergences between drug terms utilized in survey research and those used by drug users may reflect two opposing tendencies: the tendency of survey researchers to utilize standardized language that constructs persons and experiences as relatively homogeneous, varying only within measurable degrees, and the tendency of drug users to utilize specialized language (argot) that reflects their understandings of their experiences as hybrid and diverse. The findings problematize the validity of drug terms and categories used in survey research.

Keywords

Drug classification; qualitative methods; Ecstasy; methamphetamine; drug classification; Asian American

Although there has been much important research on many aspects of drug use, surprisingly little consensus exists among researchers on how to categorize, and thus how to measure the use of, drugs. Tobacco and alcohol are commonly measured separately and as singular substances, therefore threats to construct validity of standardized measures are less of a problem¹. “Illicit drug use,” however, presents more theoretical problems. “Illicit drugs” comprise many different substances which may also be conceptualized differently across

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¹Notable exceptions are questions, for regulatory purposes, of what constitutes an alcoholic beverage (Osborn, 2011; World Health Organization, 2004) or what constitutes a certain type of alcoholic beverage, e.g. beer versus spirits (Mosher, 2009), and questions regarding certain types of tobacco products, e.g. whether mentholated cigarettes should be included in a US ban on flavored cigarettes (Mitka, 2009).

populations. While the interdisciplinary drug literature comprises an impressive knowledge base over a wide variety of illicit drugs, most studies have focused on single drugs.

Attempts to synthesize this information or compare several forms of illicit drugs within one study have typically focused on relationships between use in terms of progressions or pathways to drug use, including studies examining the “gateway” theory of drug involvement (Golub & Johnson, 2001; Hall & Lynskey, 2005; Kandel, 1975; Tarter, Vanyukov, Kirisci, Reynolds, & Clark, 2006; Yamaguchi & Kandel, 1984). Other studies describing use of different substances have focused on co-occurrence or co-morbidity (Bobo & Husten, 2000; Highet, 2004; Little, 2000; Meyerhoff et al., 2006; Ream, Benoit, Johnson, & Dunlap, 2008; Williamson, Darke, Ross, & Teesson, 2006) and polydrug use (Ives & Ghelani, 2006; Lee, Battle, Lipton, & Soller, 2010; Quintero, 2009; Schensul & Convey, 2005; Wish, Fitzelle, O’Grady, Hsu, & Arria, 2006). While co-occurrence studies have typically focused on simultaneous use of two substances, polydrug studies have broadened the scope of research in recognition of the high likelihood that people who use one drug may well use other drugs. Very few studies have considered the ways that drug users themselves think about and make choices across the range of substances available to them. In this paper, we focus specifically on the two drugs known commonly as Ecstasy and methamphetamine.

Although chemically Ecstasy and methamphetamine are related (Gahlinger, 2001), in the literature on drug use, Ecstasy and methamphetamine are generally treated as distinct drugs. This may be due to associations with very different types of persons, means of access, contexts of use, forms, consumption methods, immediate effects and long-term physical and social outcomes. Early in the data collection phase of a mixed-methods study of drug use among Southeast Asian youth and young adults in Northern California, it became apparent that the ways the respondents thought about these drugs differed from the sorts of typologies included in the survey component of the interview, which included standard measures of drug use taken from national surveys commonly used in the USA. This raised questions about the construct validity of these drug use measures.

We begin with a review of typologies of illicit drugs currently used to measure youth drug use in the USA and consider problems in drug classification systems. We follow this with a description of a pile sort exercise. This exercise was conducted with a subset of our study sample to assess their understandings of drug terms which the researchers understood to be related to Ecstasy and/or methamphetamine. While not intended as a critique of survey-based drug use assessment, the responses to this exercise highlight important differences between the ways in which researchers and drug users classify drugs.

The paper’s intention is not to describe drug use patterns and constructs among a distinct ethnic group – that is, Southeast Asian Americans. Elsewhere we have described drug use patterns and constructs in this population, including Ecstasy (Lee, Battle, & Soller, 2011), marijuana (Lee & Kirkpatrick, 2005; Soller & Lee, 2010) and alcohol (Lee, Battle, Antin, & Lipton, 2008). Rather than investigating associations between ethnic or social-cultural identity and drug use, here we use our data to explore how our respondents’ understandings may problematize the ways in which scientists and other observers describe and characterize drugs.

Classification of drugs: Measures

For our project on the social meanings of drug use, we began each interview with a brief close-ended survey, administered by the interviewer. In this survey we included standard measures of drug use, which we hoped would allow us to compare drug use patterns among our sample with prevalence data from national studies, and to rapidly assess drug use of individuals to guide the questions and probes in the open-ended section of the interview. We

reviewed major US national surveys of drug use to assemble our standard measures, but found a surprising lack of agreement in terminology.

In the USA, illicit drug taxonomies appear in epidemiological surveys including the National Survey on Drug Use and Health (NSDUH), the Youth Risk Behavior Survey [now Surveillance System] (YRBS), Monitoring the Future (MTF) and the National Longitudinal Study of Adolescent Health (Add Health). Each of these surveys collects data on a sizeable list of drugs, but none agree on drug terms and typologies. The list of drugs included in the NSDUH, by far the most comprehensive and lengthy, includes the broad classes of *hallucinogens*, *inhalants*, *pain relievers*, *tranquilizers*, *stimulants* and *sedatives* although data are collected only in subcategories of these classes. For example, *LSD*, *PCP*, *peyote*, *mescaline*, *psilocybin* and *Ecstasy* are measured separately but listed under the class of *hallucinogens*. We have not included the subcategories for the other drug classes listed in the NSDUH, but have otherwise presented measures verbatim from the surveys (Table 1).

In addition to variations in which drugs were included, these surveys were also idiosyncratic in how they typologized drugs. *Ecstasy* appeared as a distinct drug in YRBS, was listed as both a distinct drug and a type of *hallucinogen* in NSDUH, appeared only as one of many *other illicit drugs* in Add Health, and was not mentioned at all in the 2004 MTF. In both NSDUH and YRBS, *Ecstasy* was specifically described as “also known as MDMA” but was not identified as related to amphetamine or methamphetamine, despite being chemically related to these substances. *Methamphetamine* appeared as a distinct drug in MTF (with the descriptors “*meth*, *speed*, *crank*, *crystal meth*”), YRBS (with the descriptors “*speed*, *crystal*, *crank* or *ice*”), and NSDUH (with the descriptors “*crank*, *crystal*, *ice*, *speed*”). In Add Health, *crystal meth* appeared as a distinct drug, apparently in lieu of methamphetamine. There are very few published accounts discussing the development of these measures. In general, measures appear to be developed through a process involving expert panel review (Office of Applied Statistics, 2008), but we have been unable to identify the criteria by which drug terms are chosen for inclusion or deletion.

A review of the terms listed in Table 1 shows a mixture of multiple types of categories in multiple registers. Gahlinger (2001) has identified these registers as chemical, generic (or common), trade, and popular or street. The survey lists include single substances named commonly (*marijuana*, *cocaine*) and chemically (*psilocybin*, *mescaline*); compounds named commonly (*Ecstasy*) and chemically (*methamphetamine*, *LSD*, *PCP*), and slang, mostly for specific forms (*crystal meth*, *crack*). The lists also include whole classes of drugs grouped by effect (*stimulants*, *painkillers*, *sedatives*) or by consumption method (*inhalants*, *injected illegal drugs*). Each survey mixes types of categories and registers. The federal listing of controlled substances reflects a similar lack of coherence. The broad categories are *opiates*, *opium derivatives*, *depressants*, *stimulants* and *hallucinogenic substances*—which include marijuana and MDMA (US Department of Justice, 2007).

The result is a hodgepodge of science, slang, and popular culture reflecting an underlying and unresolved debate about how to ask people about and report their drug use—in terms they use and recognize, or in terms scientists and policymakers use and recognize. Why this apparent contrast and these contradictions within structures designed specifically to establish order? To identify the logic underlying these contrasting systems, we review the rationales for their development.

Classification of drugs: Rationales

In order to understand the classification dilemmas facing survey researchers, we must consider how drugs in general are typically classified. Drugs have been named and

categorized for a variety of reasons: within political systems, to guide policies related to drugs; within health services or medical science, to guide prescriptions for drug use and to treat and prevent drug-related harm; and within survey research, to assess and compare patterns of drug use. The origins and aims of these rationales are somewhat divergent, as we describe below.

Drug classification systems driven by policy consideration have guided sentencing, prioritized prevention programming, and educated the public about the risks of drug use. In the USA, the legal classification of drugs has developed over the last century, resulting in the Schedules of Controlled Substances in Section 1308 of the Code of Federal Regulations (US Department of Justice, 2007). Other systems may develop alongside this federal registry in response to specific policy issues. For example, a classification of drugs according to symptomology and effects on the central nervous system, based on “medically accepted facts,” was developed to train law enforcement officers in the USA to assess risks for impaired driving, and to defend these assessments in court (American Prosecutors Research Institute, 2004). In these legal systems, the primary evaluative criterion has been stated as risk of harm (Kalant, 1999, 2010; MacDonald & Das, 2006; Nutt, King, Saulsbury, & Blakemore, 2007; van Amsterdam & van den Brink, 2010). Recent US debates have focused on the relative harm of marijuana, including widespread calls to reclassify marijuana within the federal code (Hoffmann & Weber, 2010). Debates in the UK have focused more broadly on who has the proper expertise to assess harm—politicians or scientists. David Nutt and colleagues argued that current classificatory systems, established by politicians as public policy, have evolved without a sufficiently scientific base for risk assessments (House of Commons, 2006; Nutt, King, & Phillips, 2010; Nutt et al., 2007), and they developed a drug classification system based on the assembled scientific evidence for immediate and long-term physical effects as well as broader social impacts. A similar system has been proposed for the Netherlands (van Amsterdam, Opperhuizen, Koeter, & van den Brink, 2010). These systems have been praised for prioritizing empirical evidence over morality, and acknowledging the limited utility of distinguishing licit from illicit drugs, particularly given the greater social impact of harm resulting from the use of alcohol and tobacco compared to the use of illegal drugs (Hall, 2007; McKeganey, 2007; van Amsterdam et al., 2010). However, as critics noted, even in these proposed systems the evaluation of the evidence and subsequent ranking of drugs relied on the subjectivity of reviewers’ value systems and ideologies (Kalant, 2010; MacDonald & Das, 2006; Viskaduraki & Mamuneas, 2011) and the concept of harm may itself be considered a moral issue.

In relation to scientific drug classification systems, debates have focused not on harm but on whether drugs should be named for their “pharmacological” or “therapeutic” properties—that is, whether for their chemical properties or for their actions on biological systems (King & Voruganti, 2002; Mashkovskii, 1993; Shepherd, 1972, 1980). While systems based on pharmacology have been criticized as providing little guidance to physicians in the use of drug compounds, classifications of drugs according to their actions have been criticized as “hybrid, traditional, colourful and misleading” (Toman, 1962, cited in Shepherd, 1980), or resulting in terms which “define nothing and produce considerable confusion” (Irwin, 1959, cited in Shepherd, 1972)ⁱⁱ. One response to this debate has been to typologize drugs by a combination of chemistry and effect; for example, by identifying underlying molecular properties and/or chemo-receptors, and utilizing this knowledge to classify drugs. An

ⁱⁱIn his 1972 article, Shepherd provided an in-depth review of the history of this debate with specific reference to psychoactive drugs. Examples of such “hybrid” categories include Lewin’s (1930) list of euphorians, phantastica, inebriantia, hypnotica, and excitantia (1972, p. 98) to Delay’s (1959) list of psycholeptics, psychoanaleptics and psychodysleptics (1972, p. 99); and a widely-used pharmacology textbook that grouped LSD, mescaline and cocaine together with caffeine and electroconvulsive therapy as “drugs affecting mental activity” (1972, p. 98).

example is a classification system for “addictive drugs” which grouped substances into three classes depending on their “molecular targets” (Lüscher & Ungless, 2006). However, drugs interact with biological systems in complex ways. While in some instances scientists can identify a relatively simple one-to-one correlation between a compound and an action, in many other instances there may exist multiple and chemically diverse compounds which achieve the same effect on the one hand, and on the other, multiple and diverse effects associated with a single compound. Psychiatric scholar Michael Shepherd (1972) asserted that this is more likely to be the case with “the rag bag of drugs which are grouped together by virtue of their action on the central nervous system” (p.97). Some researchers have noted that increased knowledge of the relationship between chemistry and effects has resulted in more, not less, confusion about how compounds should be named and classed (King & Voruganti, 2002).

Due to these complications, key scientific institutions have opted for typologizing drugs by their pharmacology rather than their effects. The International Nonproprietary Names (INN) system developed by the World Health Organization in 1950 was designed to provide “globally recognized” names, also known as “generic” or “nonproprietary” names, for drugs based on their pharmacology (World Health Organization, 1997). However, as pharmacologically derived names tend to be agglutinative, or compounded from a set of morphemes, the resulting terms are frequently long and cumbersome. When drugs move from the laboratory to the market, both producers and consumers seem to prefer shorter terms (including those that “brand” the compound with the identity of the maker). Although the INN system was developed to reduce the confusion arising from the multitude of proprietary or patent names, these terms have continued to proliferate alongside the generic terms (Mashkovskii, 1993), to the dismay of many scientists.

This brings us to the dilemma facing survey researchers. Survey research on drug use may be said to lie between policy and medicine. Although survey research is a relatively new method in the social sciences—not known, for example, to Durkheim (Law, 2009)—at present the statistics generated through survey research constitute the principal scientific evidence utilized in political and medical systems concerned with drugs. Statistics on drug use patterns in the form of prevalence data are used as indices for establishing the extent and relative severity of problems, which in turn inform regulatory policies and the allocation of resources to treatment, prevention and law enforcement (Shai, 1994; Wells, Hawkins, & Catalano, 1988)ⁱⁱⁱ. The difficulty is that while the end users of survey research data may be politicians, service providers, or both, these data are collected from consumers, i.e. drug users. Recognizing that drug users may not utilize scientific drug terms, survey researchers appear to have opted for common terms, presumably still retaining the ability to translate these terms into the appropriate scientific categories. A review of any single survey over the course of multiple years shows that new drug terms have been added, possibly in response to reported trends. For example, in response to increasing reports that youths were smoking marijuana in “blunts,” i.e. small, inexpensive cigars hollowed out and filled with marijuana, one US national drug survey included *blunts* as a new item, and associated responses to this item with use of marijuana (but not, interestingly, also with use of tobacco) (Research Triangle Institute, 2003). As many new drug types are similarly based on previously-known drugs (Singer, 2005, 2006) most of the new terms reflect slang references to new forms and/or use practices (*crack*, *crystal meth*).

ⁱⁱⁱFor example, in a recent hearing attended by the authors and convened by the US Food and Drug Administration to consider regulation of specific tobacco products, many forms of information were considered, but that described as “scientific evidence” was almost exclusively prevalence data on use and consequences of use of the products in question.

The hybrid nature of the resulting survey lists, such as those reviewed above, reflect an underlying and unresolved debate about how to ask people about their drug use—in the terms they use and recognize, or in terms used and recognized by scientists and policymakers. As well as providing incongruous population-level information, drug terms have diffused throughout drug research, framing the ways we investigate and talk about drugs and drug use. In addition to the mixed categories listed on surveys, a very common taxonomy is the dualistic one of *hard* and *soft* drugs, frequently referenced but rarely defined or discussed. Other categories such as *recreational* drugs, *street* drugs and *dangerous* drugs are commonly used in scientific as well as popular literature, but even users of these terms recognize broad areas of overlap (Gahlinger, 2001; Sussman & Huver, 2006), resulting in unreliable descriptions of use.

The confusion, however, may also reflect the boundless creativity of humans in finding ways to alter our subjective states of being, with scientists and policymakers scrambling to catch up. Much has been written about the rapidity with which new drugs, combinations, consumption methods and styles emerge, diffuse, and fade (Gahlinger, 2001; Singer, 2005, 2006). Surprisingly few studies have reported how drug users themselves categorize drugs.

Youth drug use and local knowledge

Literature from the sociology and anthropology of consumption emphasizes how goods such as “drugs” are imbued with complex meanings (Bourdieu, 1984; Douglas & Isherwood, 1964). Qualitative research has yielded valuable information on how drug users, including those in the critical stage of adolescent experimentation, think about substances in terms of the reasons for starting and quitting, risk perceptions, pathways to and through drug use, and concepts of addiction. In a review of the use of qualitative data methods in drug and alcohol research, Hines argued that such methods may improve the external validity of survey items (Hines, 1993).

One such method is pile sorting. Pile, or card, sort techniques are used to delineate a particular cultural domain. Systematic analysis of pile sorts allows the researcher to determine how similar or dissimilar items are from each other. Pile sorting exercises have been used for a wide range of purposes, including improving the quality of survey data (Bolton, 2001; Brieger, 1994) or health intervention programming (Chang et al., 2005; Trotter & Potter, 1993); comparing reports on the same subject matter among related pools of respondents (Harman, 2001; Quintiliani, Campbell, Haines, & Webber, 2008); and rapidly assessing specific knowledge domains across large numbers of respondents (Dongre, Deshmukh, & Garg, 2008). The method has also been used to investigate folk or indigenous classification systems, for example, those relating to medicinal herbs (Waldstein, 2006) or over-the-counter medications (Nyamongo, 1999), as well as to explore folk beliefs about health and healthcare for diverse patient populations compared to medical practitioners (Heimann, 2007; Payne-Jackson, 1999; Penka, Heimann, Heinz, & Schouler-Ocak, 2008). Nichter and colleagues (2004) illustrate how a card sort exercise might be used to evoke drug users’ perceptions of the relative risks of forms of tobacco. We have identified only one study in which the method was used to explore the drug classifications of drug users, here in relation to risk of harm (Carlson et al., 2004).

Data for this paper were drawn from a study of the social meanings of drug use among Southeast Asian Americans in Northern California. This research project focused on a specific population of drug users—youths and young adults of Laotian or Cambodian descent—in a specific locale—the East San Francisco Bay Area. In addition to the opportunity to consider theoretically interesting questions concerning changes in health behavior, and specifically drug use, related to immigration, members of this population were

of interest due to reports of their high risk of drug use (Amodeo, Robb, Peou, & Tran, 1997; D'Avanzo, 1997; Lee & Kirkpatrick, 2005) even though Asian Americans more generally are considered to be at low risk for such "problem" behaviors (Kuramoto, 1994; Zane & Sasao, 1992).

Some US studies have associated drug use with experiences associated with socially-ascribed identities, specifically "race" (Wallace, 1999; Walters, Simoni, & Evans-Campbell, 2002). Given that relations between racial/ethnic groups and larger social forces are constantly changing, relationships between race/ethnicity and drug use may be temporally specific (Bourgois et al., 2006). The 1998 ALT-YRBS findings showed that the likelihood of engaging in specific risk behaviors, including lifetime and current use of marijuana, alcohol and other drugs, varied by ethnicity, but there was no regular pattern to this variation (Grunbaum et al., 1999). This indicates that drug use may be related to social, cultural and political conditions that are specific to race/ethnic groups and not simply to their status as minorities. For example, recent studies of urban youths' have documented their involvement in the hip-hop subculture that promotes use of marijuana in blunts over other drugs and drug consumption methods, dress in baggy clothes, a preference for malt liquor over other drinks and stigmatization of use of crack cocaine in addition to a preference for hip-hop music (Furst, Johnson, & Dunlap, 1999; Ream, Johnson, Sifaneck, & Dunlap, 2006; Schensul et al., 2000). When viewed as a symbolic behavior, particularly for immigrants in new social environmental contexts, substance use has been identified as a means to intensify ethnic identity, for example Irish American drinking; as a protest for ethnically-related social inequities, for example Native American drinking; or may reflect new patterns constructed from available cultural forms in the new context, as Mexican American drinking (Lurie, 1979; Room, 2005).

Previous studies have shown that Southeast Asian American youths in the East San Francisco Bay area participate in hip-hop subculture, but that their participation is nuanced by specific aspects of their unique social status as second-generation Asian Americans and children of refugees as well as by their relationships to other youths in their neighborhoods (Lee & Kirkpatrick, 2005; Soller & Lee, 2010). Use of Ecstasy by Bay Area Southeast Asian youths may be an expression of their identification with and participation in a local youth cultural form known as "hyphy." Hyphy is a subgenre of hip-hop music that was developed in the Bay Area in the 1990s by recording artists including E40 and the late Mac Dre (Lee et al., 2011). Like hip-hop, rap and many other genres of popular music, hyphy is intimately connected with specific youth-oriented subcultural styles. Styles and forms associated with hyphy include car antics including "ghostriding" (sitting or dancing on or around a car which is idling with no driver) and "doing donuts" (driving very fast in circles), particularly in the context of "sideshows" (illegal and highly volatile street events performed at large intersections). These activities, as well as the pounding rhythms of the music and fast, overstated dance moves associated with it (Hildebrand, 2004; Rosen, 2007), are manifestations of the state of hyperactivity celebrated in the music and subculture, referred to as "being hyphy" or "going wild" as well as "getting stupid" or "going dumb" (Rosen, 2007). Hyphy participants consider that these affect states are enhanced by Ecstasy, called "thizz" in hyphy culture (Swan, 2006), and use of thizz is extolled in hyphy texts. In the present study we examine the ways in which locally-specific constructs such as "thizz" may problematize the validity of drug categories such as "Ecstasy."

Methods

Sample

Data collection for this study occurred between 2004 and 2005. The total sample for the study consisted of 153 Southeast Asian Americans between the ages of 15 and 24, but pile

sort data were collected from only 76 of the respondents, as will be described below. As the parent project aimed to investigate relationships between socially-constructed identities and drug use for these second-generation youths, we purposively sampled youths with some recent personal experience with drugs. Therefore a requirement for participating in the study was current or recent (past six months) use of any illicit drug, as identified by self-report. The sample was stratified by gender and age group: 15–16 years old, 17–18 years old, 19–20 years old, and 21–24 years old. Of the 76 participants in the pile sort exercise, the majority (65.3%) were transitional-aged youth between 18 and 21 years old, with smaller percents of adolescents, aged 15 to 17 (18.7%), and young adults, aged 22 to 26 (16%); and nearly half of the participants in this exercise were female (41.3%). When asked in the close-ended portion of the interview to report their lifetime use of specific licit and illicit substances, the most commonly reported substances were marijuana (100%), alcohol (98.7%) and cigarettes (89.3%) followed by Ecstasy (57.3%). These prevalence data are very similar to the lifetime use reported by the larger sample of 153. See Table 2, below, for lifetime use of all listed items for the pile sort sample.

We recruited respondents through a combination of agency and snowball referrals. An initial set of respondent were recruited from referrals from community-based organizations serving Southeast Asian American youths, and these initial respondents were offered a small cash incentive for referring potentially qualified candidates from their personal networks. The majority (70%) of respondents were recruited through snowball referrals. To diversify our sample across social networks, we limited all agency referrals to ten completed interviews and all snowball referrals to four completed interviews. All respondents were provided with a cash incentive for participating in the study.

The sample was drawn from Oakland and Richmond/San Pablo, two communities with the largest Laotian and Cambodian populations in the East Bay Area. These communities are both low-income with predominantly ethnic minority populations: approximately one-third African American, one-fourth Latino and 10–15% Asian American/Pacific Islander. Both cities have been consistently ranked among the most dangerous in the USA, based on an index of violent crimes, with Oakland and Richmond listed as the fifth and sixth most dangerous, respectively, in 2010 (CQ Press, 2010). The San Francisco Bay Area is commonly associated with a permissive approach to drugs and drug use, stemming from the Beatnik and hippie movements of the 1950s and 1960s which embraced marijuana and other drug use (Becker, 1971). Oakland was among the US cities most impacted by the crack “epidemic” of the 1980s (Fryer, Heaton, Levitt, & Murphy, 2005) and more recently has emerged in the forefront of the medical marijuana movement (Bennett, 2009). Respondents in our earlier studies had reported a surge in methamphetamine use in the Richmond/San Pablo area within the ten years prior to the study; analyses of arrest and hospital discharge data indicated increases in methamphetamine use in the greater Bay Area during the period of 2001–2004 (Newmeyer, 2004). No recent studies have assessed the prevalence of Ecstasy use in the Bay Area, although researchers investigating drug use in the electronic dance music scene have reported increased use of Ecstasy by Asian American club-goers (Hunt, Evans, Wu, & Reyes, 2005).

Data collection

All data reported here were collected in confidential in-person interviews conducted by trained staff interviewers and by staff members of local Southeast Asian community-based organizations who were trained and supervised by the research team. The interviews were conducted in English. They averaged 90 minutes in length and were conducted either at the research agency office, at the offices of cooperating community-based organizations or in respondents’ homes. The interview started with a brief close-ended survey to collect data on demographics and use of illicit drugs, alcohol and tobacco and then moved to a longer semi-

structured component. The pile sort described in this paper was included in the semi-structured section midway through data collection, when it became apparent that we needed to clarify how specific drug terms were used and understood by the respondents.

Pile sort exercises are useful for collecting data on particular domain of interest by providing respondents with index cards individually marked with locally-appropriate terms related to the domain of interest. Respondents are then asked to sort the terms into piles of similarity. The terms may be prepared by the researcher or elicited through freelistings, depending on the aims of the exercise. In our study, because we were interested in respondents' reactions to terms we had been collecting in prior interviews, we used a prepared list. Interviewers were equipped with 16 cards, each with a different drug term. As we were primarily interested in understanding how the respondents thought about Ecstasy in relation to methamphetamine, we only included drug terms that we understood respondents might consider to be related to those two substances. Since the field interviewers reported that some respondents appeared to consider crack and cocaine to be related to methamphetamine, we also included these two terms. As we were not attempting to assess their responses to the broader categories of amphetamine and methamphetamine, these terms were not included.

The complete list included *cocaine*, *crack*, *crank*, *crystal*, *E*, *Ecstasy*, *ice*, *meen*, *meth*, *shabu*, *shards*, *speed*, *stunners*, *thizz*, *X*, and *yaba*. The terms *shabu* and *yaba* were suggested by service providers and also consistent with the literature on methamphetamine use in Southeast Asia and among Southeast Asian Americans (Ahmad, 2003; Nemoto, Operario, & Soma, 2002). Service providers also suggested *meen* and *shards* as locally relevant terms for methamphetamine, based on their experiences with Asian American/Pacific Islander populations. *Speed*, *ice*, *crank*, and *crystal* were drawn from the current literature on methamphetamine use and survey lists such as those described previously. The set of terms associated with Ecstasy, including *E*, *X* and *Ecstasy*, were derived from the literature on Ecstasy use, while the terms *stunners* and *thizz* were suggested by the field interviewers as terms that had been introduced by respondents in earlier interviews.

Because we initiated the pile sort exercise midway through data collection, pile sort data are available for 76 respondents. Interviewers gave the pile of cards to each respondent and read aloud this description of the activity.

We hear a lot of different terms for different drugs; we'd like you to help us figure out which terms go with which drugs. Here is a stack of cards with some common drug terms written on them. First I'd like you to read all of the terms. Then, organize the cards into piles by matching up the terms that you think refer to the same drug. You can have as many or as few piles as you like. Just make sure that the drug terms that you think describe the same drug are in the same pile. If there are common drug terms that you think we should have here, you can write them on the blank cards.

The blank cards gave respondents the opportunity to suggest other common drug terms for methamphetamine and Ecstasy. Following the instructions, respondents sorted the 16 cards into piles. During and after the sorting phase, interviewers asked the respondents to name or label their piles. Interviewers were instructed not to define terms for respondents and to emphasize that there were no right ways to sort piles. Piles were to be sorted according to their own meaningful categories. When the meanings were not obvious, interviewers invited the respondents to comment on their sortings and pile labels.

The interviewers recorded the results of the pile sort on a separate piece of paper along with the labels provided by the respondents. Following the interview, research staff digitized the records for data entry. Each drug term was assigned a number from 1–16 which was held

constant across all of the data. Each respondent's pile sort exercise was summarized and stacked creating one comprehensive text file. Each summary followed the same format where one line represented one pile of drug terms created by one respondent. Each drug term included in the piles was represented by the assigned number, and terms were separated by commas. Subsequent lines represented distinct piles. Such a rigid system was necessary for input into NetDraw software which will be discussed below.

Analysis

Traditionally multidimensional scaling (MDS) has been used to analyze pile sort data. ANTHROPAC, a DOS-based cultural domain analysis software, manages and analyzes various qualitative data collected through structured methods like pile sorts (Borgatti, 1996). Essentially, MDS is used to visually represent how similar and dissimilar items are from each other (Borgatti, 1992). Because of the attributes of our data, however, a graphic layout algorithm (GLA) proved to be an interesting way to analyze the strength of relationships between items in our pile sort data (Dan Halgin: personal communication, 8/30/2007). Traditionally, GLAs are used to visualize social network data, and "are designed to work with binary data representing the presence or absence of relationships" (DeJordy, Borgatti, Roussin, & Halgin, 2007). NetDraw (Borgatti, 2002), a network visualization software, produces lines between variables (e.g. drug terms) to illustrate the presence or absence of a relationship between variables filtered at a specific level as set by the researcher (DeJordy et al., 2007).

Using this approach, we entered our pile sort summary text file into NetDraw and filtered the relationship at 70% agreement. This meant that in order for a relationship to be identified between drug terms (e.g. a line to be drawn between terms), those terms must have been placed in the same pile at least 70% of the time by respondents. Because this is a relatively new method, no level of agreement is standard. DeJordy and colleagues (2007) report on both 50% and 75% agreement in their illustrations of this method. Because we intended to determine typologies of drug terms across all respondents, we set the level of agreement between terms relatively high to allow us to identify distinct sets. To compare how respondents conceptualized their piles we analyzed the labels generated in the exercise. Each label that ever occurred was listed separately and these labels were counted. The respondents generated over 50 separate pile labels, but half of these were idiosyncratic and were set aside for separate analysis. The remainder were aggregated by primary drug type, if any, and counted, and the terms listed within these piles were compared for similarities and dissimilarities in sorting.

The respondents' comments on their pile sort decisions were analyzed as follows. Since the pile sort was a brief and self-contained section within a larger interview and was not conducted with all 153 respondents, we selected the transcribed interviews for those 76 respondents who had performed the pile sort and used a word search to find the texts in these transcripts related to "pile sort." We then reviewed these texts for any comments the respondents made about their sortings and labels.

Findings

Pile sort graphing results

Terms the researchers considered to be related to Ecstasy including *X*, *E*, *Ecstasy*, *stunners*, and *thizz* were placed into the same pile at least 90% of the time. *Crystal*, *ice*, and *meth* were placed into the same pile at least 70% of the time by respondents. Terms related to Ecstasy were classified by the respondents as being distinctly different from the set of terms including *crystal*, *ice* and *meth*. *Crack* and *cocaine* were associated with each other 90% of

the time but were not associated with any other terms at least 70% of the time. Another clearly-defined pile consisted of *shards*, *yaba*, *shabu*, and *meen*. They were sorted into the same pile at least 80% of the time by respondents. *Crank* and *speed* were not associated with any other terms at least 70% of the time. Some respondents grouped *speed* with Ecstasy terms, but this did not occur frequently enough to meet our level of agreement. In Figure 1, the strength of the relationship between terms is indicated on the line drawn between terms.

Pile sort label analysis results

The most common label was *unknown*, or *don't know*. All but four respondents had a pile for *unknown* terms. Most respondents' *unknown* piles consisted of *yaba*, *shards*, *meen*, and *shabu*, but *crank*, *speed* and *meth* also frequently appeared in these piles. The next most common label was *Ecstasy*, which 43 respondents used. Only two respondents did not have a pile labeled *Ecstasy* or one of the related terms, the next most common of which was *thizz* or *thizz/pills* (10) and then *pills* (5) or *pills/Ecstasy* (5), and none of the respondents had more than one pile for the Ecstasy set. Nearly equal numbers of respondents labeled their cocaine/crack pile as *cocaine* (27) and as *crack* (26), and several chose to call it *crack/cocaine* (9). Many people included *crank* in their cocaine/crack pile, and several also included *crystal* and *ice* in this set. Nearly one-fourth of the respondents (18) had no pile labels that referred to any of the variants of methamphetamine listed here. This included most of the respondents who labeled their piles idiosyncratically as described below, as well as respondents who included methamphetamine terms in their Ecstasy, crack/cocaine and/or unknown piles. The complete list of labels and frequencies is presented in Table 3.

Pile sort comments

Reviewing the respondents' comments about their piles clarified the idiosyncratic labels as well as some of the ways in which the pile sort exercise indicated the limits of respondents' knowledge. Of the terms labeled *unknown*, only a few people knew or guessed anything about these terms, although several speculated that *yaba* and *shabu* were some form of marijuana or *weed* and so grouped them under this label. Others reported that they guessed from the names that *shards* might be related to *ice* and/or *crystal* and sorted these together. As seen in the pile sort graph, most respondents found *ice*, *crystal*, and *meth* to be related, but many did not know what some or all of these terms meant and so some of the associations found were based on the items being unknown as opposed to referring to the same drug. Many respondents were also unsure about *crank*. Several respondents stated that they sorted *crank* with *crack* because the terms sounded similar. Many were also unsure about *speed*. Some who chose to sort it with their set of Ecstasy-related terms stated that this was because Ecstasy, or *thizz* as most preferred to call this set, gave users a speeded-up feeling. Similarly, one respondent sorted *cocaine* and *speed* together based on effects.

Although the instructions asked respondents to sort the terms by drug, and despite sometimes being reminded by interviewers to adhere to these instructions, many respondents based their pile sorting on other rationales. These idiosyncratic taxonomies took three basic forms. One was related to consumption methods, i.e. delivery systems, with three respondents basing their taxonomies on this rationale. All three included *pills*, and indeed 20 other respondents listed *pills* as part or all of the label for the set of Ecstasy-related terms, which sometimes included other items such as *meth* or *speed* as well. Other consumption methods used to label piles were *snorting*, *injecting* and *smoking*. For example one female listed *crystal*, *ice*, *crank*, *crack* and *cocaine* together under *snorting*, commenting that some of these items could be snorted after being crushed. This pile contrasted with her pile labeled *injection*, which only included *meth*, and her Ecstasy-related *pill* pile. Another respondent's piles were labeled *liquid*, *solid* and *pills*: *liquid* because he felt that the items *crank*, *ice* and

crystal when crushed were liquefied in order to be smoked; *solid* included *cocaine*, *crack* and *speed*, while *pills* was the *thizz* group.

A second form of taxonomy was based on the social identities linked to the listed drugs. One respondent labeled her piles *homeless*, *alcoholic*, *rave party*, *Vegas drugs*, *college drugs* and *off-the-scale drugs*. Another respondent listed only two piles: *crackhead*, which included *meth*, *crystal* and “all that shit,” and *hyphy or stunner*, which included “pills and shit.” Another respondent stated that *crack* and *crystal* were “almost the same thing,” citing an association with “addicts.”

The third form of taxonomy grouped all the terms into two or three categories including *unknown* and then one other large pile labeled in one case *crack*, in another case *pills*, and in another case *pills/Ecstasy* and *hard*. The latter pile included *crack*, *cocaine*, *ice*, *crystal*, *speed* and *meth*. Notably, this was the only time *hard* was used in this exercise to describe drugs.

Discussion

The findings suggest that respondents’ drug knowledge is limited by their experiences with specific drugs. This finding resonates with other studies showing a relationship between drug users’ knowledge of and experience with drugs (Fabricius & Nagoshi, 1997; Fabricius, Nagoshi, & MacKinnon, 1993). Ecstasy use was more widely reported than methamphetamine use by the group as a whole. As a group they differentiated the terms *ice*, *crystal*, and *meth* from *shabu*, *shard*, *yaba* and *meen*, which may indicate that they were more comfortable confessing ignorance of these latter terms. *Ice*, *crystal* and *meth* may have resonated with their experiences, although not necessarily close or personal experiences. One respondent included *speed*, *meth* and *crank* in a pile he labeled *don’t know but heard of*.

Like the surveys cited earlier, the respondents mixed drug categories, but somewhat differently from those provided by survey researchers. Particularly striking was their use of consumption methods to categorize drug terms. Although only three respondents used this as their sole means of sorting drugs, 20 respondents used the term *pills* as part or all of one of their labels. Compare this with the national surveys in which the only two categories referring to consumption methods are *injecting* and *inhaling*. We have previously noted that even respondents who reported a strong aversion to heroin and cocaine were not adverse to taking pills that they thought very likely to contain these substances (Lee et al., 2011). *Pills* as a drug type recognizes the flexible nature of drugs that are manufactured compared to the relatively fixed nature of drugs that are “nature-grown” (Lee & Kirkpatrick, 2005).

The taxonomies based on social identities associated with drug use (*crackhead*, *rave party*, *hyphy*, *college drug*) present another way drug users think about drugs. Many studies have shown associations between specific subcultures or subgroups and specific drugs (Golub, Johnson, & Dunlap, 2005) such as LSD (Becker, 1967), marijuana (Johnson, 1973), drugs of injection (Friedman, Des Jarlais, & Sotheran, 1986), Ecstasy (Gourley, 2004) and methamphetamines (Haight, Ostler, Sheridan, & Kingery, 2007). Furst and colleagues have shown how the concept *crackhead* marks a significant barrier to use of crack for many urban youths (Furst et al., 1999). Our respondents’ identity-related taxonomies remind us that social context is a critical aspect of how people, particularly young people, learn to think about and make choices regarding drugs (Becker, 1953; Zinberg, 1984). This aspect of their drug use is not necessarily represented in survey data, particularly when those data are based on categories of uncertain relevance to drug users.

This brings us to the issue of the drug taxonomies used by drug users. These represent an alternative classification system to those commonly used by survey researchers, scientists, and policy-makers. In their analysis of drug terms used by marijuana users in New York City, Bruce Johnson and colleagues (2006) report that users were well aware of terms used by outside observers (including pharmacological terms like *cannabis* as well as “common” terms such as *grass* and *pot*), but never used these terms themselves, rejecting them as “too ‘scientific’ ...painfully unhip, too long and unrelated to the lived experiences shared by marijuana users” (p. 54). The authors refer to drug terms used by marijuana users as “argot,” following an older tradition which considers the ways in which knowledge of specialized drug terms, rather than merely indexing degrees of drug experience, also indicates involvement in specific drug-related subcultures (Haertzen, Eisenberg, Hooks, Ross, & Pross, 1979; Lerman, 1967; Lindesmith, 1938). Alfred Lindesmith observed that argot used by opium smokers represents “a specialized form of expression which arises out of the peculiar experiences that are associated with the use of opiate drugs” (Lindesmith, 1938, p. 263). Similarly, Johnson and colleagues show that marijuana users’ argot reflects and expresses the feeling of the drug (drug effects) as well as the feeling of participating in the subculture associated with use of that drug; and this combination of knowledge and experience may be highly condensed in drug argot. So, for example, the authors report that the expression “pass me a *one and a Dutch*” signifies specialized knowledge of blunts smokers (local preference for Dutch Masters cigars as a delivery device for marijuana smoking) and reflects ritualized practices specific to blunts-smoking subcultures (smoking a cigarette—“a one”—after a blunt as a *chaser*, and consuming these items together with other users as a social practice) (Johnson et al., 2006).

As a specialized form of language known only to initiates, expressing their shared understanding and experiences of drug use and of subcultural participation, drug argot also functions to create and maintain social boundaries. Drug argot marks the boundary between subcultures and mainstream society, i.e. between users of these illegal substances and authorities (police or parents) who may be hostile to drug use. Drug argot may also mark the boundaries between specific drug-using subcultures. Researchers have noted that argot may vary by ethnicity and by locale (Johnson et al., 2006; Lindesmith, 1938). Johnson and colleagues (2006) show that drug argot may additionally represent a form of branding, in that drug dealers may create and use highly specialized terms (e.g. marijuana varieties such as *kush* or *purple haze*), to signify specific drug properties (potency, type of high) to consumers and thus accrue consumer loyalty to their products. Knowledge of drug terms, then, may mark the boundaries of specific drug markets (Dunlap, Johnson, Kotarba, & Fackler, 2009). In that drug argot reflects shared values and beliefs, argot may indicate the boundaries between subcultures associated with different drugs. So, for example, the term “crackhead” when used by blunts smokers expresses their collective disdain for use of crack cocaine and its users (Furst et al., 1999; Soller & Lee, 2010)^{iv}.

In using these terms, participants express their competence in the specific subculture. In this sense, drug argot as a specialized knowledge is performed as well as known. Drug argot may also change over time, sometimes quite rapidly, a phenomenon researchers have associated specifically with youth drug use. Johnson and colleagues (2006) note that “users may create new words that express how they feel or experience the drug and their participation in the subculture” (p. 52). The authors note that drug argot terms may, over time, diffuse to mass culture where the terms are picked up by outside observers (including market research professionals). Such terms may still be recognized although rejected by users themselves.

^{iv}However, use of the term *crackhead* by crack users themselves may indicate their ironic awareness of this attitude, as expressed in a conversation between two crack cocaine users, witnessed by the first author.

Such may be the case with Ecstasy for our respondents. Our respondents' handling of drug terms may be seen to reflect not only their experiential levels—the high prevalence (57.3%) of Ecstasy use, low use of other amphetamines or of crack or other forms of cocaine—but moreover, their responses may express their participation in a specific subculture oriented to use of Ecstasy in its specific manifestation as *thizz*. The majority of respondents in this exercise sorted these and related terms (*X*, *E*, *stunners*) together. In this sense, we may observe that they recognize the term Ecstasy as a common term—once perhaps slang or argot, but later picked up by mainstream society—but not one they use themselves, preferring instead the term *thizz* (and related terms such as *stunner*) as expressing the feeling of taking this drug (thizzing) and participating in the “hyphy” subculture associated with *thizz* (Lee et al., 2011). The findings may also indicate some of the boundaries of this subculture in relation to other drug-using groups. The respondents displayed high agreement in grouping *meth*, *ice*, and *crystal* together. However, terms for forms of amphetamines reported elsewhere in the USA, for example, *crank* and *ice* (Parsons, 2010), were not necessarily recognized by our respondents, nor even were terms reportedly common among other Southeast Asian Americans in the same geographic region but a different city, such as *shabu* in San Francisco (Nemoto et al., 2002).

The idiosyncratic pile labels used by some respondents also reflect aspects of their experience of drug use and subcultural participation. Among scientists, a strong argument for not naming drugs according to their effects was because it “tends toward empiricism” (Sollman, 1957, cited in Shepherd, 1972) and yields “hybrid” typologies. User-ascribed classes – such as those provided by our respondents, who characterized and sorted drugs by ascribed effects (*thizz*) as well as by form (*pill*) and social context (*ravers*, *crackhead*) – are explicitly empirical because they reflect the collective experience of using these drugs. Indeed, on closer inspection, the purported distinction between empiricism and idealism in scientific naming systems erodes. The class of drugs known by the therapeutic action of calming—“tranquilizers”—may be more scientifically referred to by the pharmacological name of *ataractic*, yet this term derives from the Greek “*ataraktein*,” to keep calm. Similarly, the *atropines*, a class of drugs that includes the extract of a plant commonly known as “deadly nightshade,” derive their name from Atropos, the Greek god of fate who cut the thread of life (King & Voruganti, 2002)^v. In particular, within the scientific process of naming drugs, translation into ancient Greek or Latin may be said to have alienated drug terms from these empirical origins derived from context or experience^{vi}. In his review of classification systems, Shepherd (1980) concludes that since classification is fundamentally a form of cognition, classification systems may be most useful when they are understood to be relational, valued according to “what is demanded from each within its own frame of reference rather than by reference to any holistic schema” (p. 452).

Shepherd's assessment echoes the movement in post-modern social theory toward hybridity, which in the social sciences found its core expression in the debates within sociolinguistics. Bourdieu follows Sausurre in characterizing this as the tension between *langue*—an idealized form of a language—and *parole*—its practical and spoken forms, which may be varied. Bourdieu (2003) extends this insight to consider the question of linguistic legitimacy,

^vAccording to popular dictionary sources, the term *amphetamine* is a contraction of the pharmacological name *alphamethyl phenethylamine*, which in turn is compounded from the morphemes */alpha/methy/hyl/* and */phen/eth/hyl/amine/*. The etymology of these morphemes derives from their actions as well as the social contexts within which some of these chemicals were first identified: */alpha/* means here “primary” referring to the first letter of the Greek alphabet; */methy/hyl/* derives from Greek terms meaning “intoxicating stuff”; */phen/* is derived from a Greek term but refers to Victorian gas lamps associated with the production of the material; */eth/hyl/* derives from Greek terms meaning “airy stuff”; and */amine/* indicates ammonia, named for the salts originally found near the Libyan temple of the Egyptian god Ammon (<http://dictionary.reference.com/browse/amphetamine> and <http://dictionary.reference.com/browse/ammonia>, accessed Feb. 16, 2011).

^{vi}The privileged status in Euro-American culture of the “classical” languages of Greek and Latin is rooted in educational systems and liturgical traditions within which knowledge of specialized languages differentiated a small class of elites (Campbell, 1968).

in that language acquisition and use is situated by social status. This view may be helpful in considering the question of drug terminology used in survey research. It is precisely this tension between institutionalized language and everyday speech that confronts drugs users who are asked to respond to survey questions regarding their drug use.

In analyzing surveys as social phenomena, sociologist John Law notes that surveys are generally based on some fundamental constructs which may be summarized as: 1) that populations exist as singular collectives; 2) that the persons within these collectives represent relatively interchangeable, i.e. homogeneous, units; but, somewhat contrarily, 3) there exist subtle differences among these units, which may be measured (Law, 2009). However, as the research on drug argot has shown, drug terms used by drug users may diverge widely from those used by scientists and policy makers (i.e. social elites). Moreover, it would appear that the more involved individuals become in drug-using subcultures, the more diverse and hybrid become their drug terms, and the more widely these terms diverge from those used by elites. Therefore, a paradoxical feature of national drug surveys may be that they are least able to capture data on the use patterns of those most involved in drug use. Johnson and colleagues (2006) note that their study participants recognized the common term *marijuana* for the drug they consumed, even though they themselves never used that term. Presumably when asked by survey researchers to report their use of *marijuana*, these participants would be able to codeswitch, or translate from argot to survey language, and report their marijuana use as intended. The issue we present here is somewhat more complicated. Most of our respondents identified their argot terms *thizz* and *stunners* with the common term *Ecstasy*, and we suspect that if asked to report their use of *Ecstasy*, they would similarly codeswitch (as indeed we assume they did in responding to our brief survey). However, previous studies have indicated that these youths may consider that the pills they consume contain little or no MDMA, and may instead or additionally contain amounts of a wide range of psychoactive substances, including possibly cocaine and methamphetamines (Lee et al., 2011). As use of *meth* and *cocaine* mark subcultural boundaries for these youths, we suspect that very few would describe *thizz* to be a form of *methamphetamine* or *cocaine*, and would not be likely to report use of these drugs on a survey.

It is important to note that our respondents' recognition of terms, or their lack of recognition, may not necessarily express their personal drug use, but their familiarity with a specific set of terms. These terms were provided by the researchers and thus do not necessarily reflect the breadth of users' knowledge. Further ethnographic investigations of drug users' terms, both ascribed and practiced in drug use settings, may elicit a more extensive pattern of terminology and cultural associations.

The findings from this sample of drug-involved Southeast Asian American youth and young adults cannot be said to represent all drug-using youths nor all Southeast Asians in the USA or elsewhere. Nor can they be said to represent all youths in the East San Francisco Bay Area communities from which our samples were drawn. Nevertheless, the study contributes to the small but important body of literature that seeks to understand how users categorize drugs. The results of this investigation suggest that researcher-ascribed drug categories may not be recognized by drug users themselves. Additionally, this study provides an empirically-driven theoretical argument raising questions about the validity of survey measures.

Our findings also suggest areas for improvement in the design and structure of survey questions and questionnaire formats so that they accord more closely with the conceptual organization of specific groups of research interest (Hines, 1993), whether identified by race/ethnicity, geographic region, or both. Such data can improve the sensitivity of data

collection instruments in detecting use patterns and problem areas, as well as indicate viable directions for drug prevention programs, among specific populations.

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Figure 1.
Pile sort outcomes graphed

Table 1

Drugs measured in four major drug use surveys, USA

Distinct drug terms	NSDUH ¹	YRBS ²	MTF ³	Add Health ⁴
Marijuana				
Blunts				
Cocaine				
Crack				
Hallucinogens				
LSD				
PCP				
Peyote				
Mescaline				
Psilocybin/mushrooms				
Ecstasy/MDMA				
Inhalants				
Pain relievers/killers				
Tranquilizers				
Stimulants				
Methamphetamine				
Crystal meth				
Amphetamines				
Diet pills				
Sedatives				
Injected illegal drugs				
Steroids				
Heroin				
Narcotics other than heroin				
Legal performance-enhancing steroids				
Anabolic steroids or other illegal PES				

Sources:

¹ 2004 National Survey on Drug Use and Health, CAI Specs for Programming English Version² 2005 State and Local Youth Risk Behavior Survey³ Monitoring the Future 12th Grade 2004 Form 6⁴ Add Health 2003 In Home Questionnaire Code Book III, S.28

Table 2

Drugs ever used—pile sort sample (n=76)

Ever Used	
Marijuana	100
Alcohol	98.7
Cigarettes	89.3
Ecstasy	57.3
Cocaine/crack	14.7
LSD/psychedelics	14.7
Other amphetamines	13.3
Other medicines/OTC	13.3
Inhalants	4.0
Opiates	4.0
Other club drugs	1.3
Heroin	0
PCP	0

Table 3

Labels used by the respondents, sorted by frequency

unknown	72
ecstasy	43
cocaine, coke	27
crack	26
crystal	22
meth	17
crack/cocaine	10
thizz, thizz pills	10
speed	9
ice/meth	7
crystal/meth	7
pills	5
pills/ecstasy	5
X	4
weed	4
crystal/ice	3
E	2
shit (meth)	2
hard	1
heroin	1
crystal meth, coke, crack	1
speed/meth	1
X/ecstasy	1
opium	1
heard of	1
rock: smoke or inject	1
(friend's name)	1
snorting	1
injection	1
angel dust	1
crackhead drugs	1
hyphy/stunner drugs	1
liquid	1
solid	1
methamphetamine family	1
ice/crank	1