Embarking on large-scale qualitative research: reaping the benefits of mixed methods in studying youth, clubs and drugs

GEOFFREY HUNT & MOLLY MOLONEY & ADAM FAZIO

ABSTRACT
Qualitative research is often conceptualized as inherently small-scale research, while larger-scale projects are often assumed to be solely the domain of quantitative researchers. The aim of this paper is to discuss qualitative research done on a comparatively larger scale. In addition to the centrality of a qualitative perspective, the research incorporates some quantitative elements into the design, data collection, and analysis. Larger-scale qualitative research shares some of the challenges and promises of smaller-scale qualitative work. However, there are additional challenges specific to the scale of qualitative research such as data overload, time constraints, and mentoring large research teams. Yet large samples can prove to be essential for enabling researchers to conduct comparative research, whether that be cross-national research or cross-cultural research.

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Introduction
The behavior of young people has long been of concern to adults, especially behavior that is defined as delinquent or takes place outside education, waged work, or adult supervision. A central focus of this concern has been young people’s use of illicit drugs, seen as “risky” consumption (Mitchell et al. 2004) with young people perceived as “a highly vulnerable sector of the population” (Etterre & Miles 2002, 176). Today hundreds of publications exist on youth drug use across the social sciences. Utilizing various interpretative approaches, these disciplines have created “different objects of intellectual abstraction” (Kelly 2000, 307) and have adopted divergent methodological frameworks. Studies of youth drug use are centered in two major, and quite different, scholarly camps: epidemiology and cultural studies (Hunt et al. 2009). These two approaches diverge not only in theory and epistemology but also in the methods they utilize to understand youthful drug use, with epidemiologists often relying on surveys and cultural scholars conducting ethnographies.

Epidemiological studies assess the prevalence of drug use, the characteristics of users, psychological and physical problems emanating from drug use, and risk factors for drug use. These are often large-scale projects, employing quantitative, formalistic survey methods and providing descriptive or explanatory models. This type of research dominates the drug
field, especially in research on young people. At the other end of the methodological continuum, ethnographic studies of drug users are often conducted by a lone researcher engaged in extensive and long-term fieldwork or conducting in-depth interviews with small samples of participants. Such studies are marked by intensive engagement with research subjects and emphasize the importance of the users’ social context and the symbolic meanings associated with their drug consumption (Page & Singer 2010).

Though there may be some potential for these two approaches to be complementary, they have often been treated as wholly opposed. Quantitative researchers often view ethnographic research as "a soft option, producing anecdotal information of uncertain relevance to the serious business of science" (McKeganey 1995, 750). In turn, qualitative researchers have viewed quantitative research as "overly simplistic, decontextualised, reductionist in terms of its generalisations and failing to capture the meanings that actors attach to their lives and circumstances" (Brannen 2005, 7). The resulting compartmentalization of research traditions appeared to us to be unfortunately limiting, especially given the importance of understanding youthful drug use as the interplay of individual, social and contextual factors (Agar 1996). In our studies of youthful drug use and nightlife, we sought to craft a multiple-method approach integrating qualitative and quantitative research methods within the same project.1 Rhodes (2000, 23) argued that "the challenge for future drug research is to recognise the pragmatic utility and methodological desirability of using multiple methods, in order to encourage research which understands the epidemiology and the social context of drug use" (see also Demant et al. 2010). If our aim was to explore the nexus of meaning and context of drug use for young people (Agar 1996), we needed to understand the "interplay of factors, including individual and group subjective interpretations of drug use, the physical, interpersonal and social settings in which drug use occurs and wider structural and environmental factors" (Rhodes 2000, 25).

So far, our federally funded research projects have been examples of what Johnson and colleagues (2010) have referred to as "structured qualitative research" – in which qualitative research projects increasingly require both a qualitative and a quantitative component, larger sample sizes than in traditional qualitative projects, and a team of researchers to accomplish project aims. Our primary tool has been the in-depth interview (rather than the classic ethnographic research model [Adler & Adler 2008; Agar 1973; Becker 1953; 1963; Bourgois 1996; Feldman et al 1979]). In our one-on-one interviews, we combined open and closed-ended questions, designed for both qualitative and quantitative analyses. Although our quantitative methods produced some important descriptive data, the use of qualitative narrative data greatly enhanced this by providing "thick description" (Geertz 1973), important contextual information and a rich narrative. Qualitative methods help to explain the social worlds in which our participants operated and the perceptions and meanings through which they interpreted and enacted their lives. We were able to explore socio-cultural meanings of drug use, while simultaneously collecting quantitative
data on the extent, prevalence and type of drug use. We also use sample sizes (often in excess of 300) that are relatively large, at least for primarily qualitative research projects. This approach has the benefits not only of appearing more "legitimate" to many funding agencies (Brannen 2005; Agar 2006), but has also been crucial for allowing us to study with both depth and breadth the interplay of social and cultural context, identity, and consumption in our studies of club drug users.

Given the relative absence of this type of larger-scale qualitative research, at least within the drug field, we faced new challenges that other smaller scale qualitative projects avoided. These challenges include data overload and data-management issues resulting from handling large data sets, time constraints resulting from labor-intensive methods of coding and analyzing data, as well as complex personnel issues including training, organizing and mentoring large research teams. Within this paper, we examine these challenges through examples of our research on youthful drug cultures since 2000 in the nighttime economy. Although the primary focus and location of our research took place in San Francisco, we also conducted two smaller comparative projects in Hong Kong (2002–2004) and in Rotterdam (2003–2004). In San Francisco the team totaled seven people, including three interviewers. In both Hong Kong and Rotterdam, the teams were smaller involving four researchers in each site. While the San Francisco team was composed primarily of sociologists and anthropologists, in Hong Kong the team was led by a criminologist and in Rotterdam by a researcher trained in public health.

We examine the potential lessons to be learned from using these types of methods. Many methodological articles on "mixed methods" contribute to debates about what constitutes a mixed-method approach, whether qualitative and quantitative data are epistemologically compatible, or outline different typologies and taxonomies of varying mixed methods approaches possible (e.g., Bazeley 2004; Brannen 2008; Bryman 2008; Creswell et al. 2003; Greene & Caracelli 1997; Greene et al. 1989; Hunter & Brewer 2003; Kelle & Erzberger 2004; Morgan 1998; Onwuegbuzie & Leech 2005; Rossman & Wilson 1985; 1994; Teddlie & Tashakkori 2003). Although these debates are important, they can also lead to an impasse. For the purposes of this paper, we have adopted a similar stance taken by Brannen (2008) when she suggests that the way forward is to side-step the "issues around the commensurality of qualitative and quantitative data" (2008, 63) and instead commence the discussion of a mixed methods approach by starting from the standpoint of researchers and their own "research habitus" (Bourdieu 1990), which means our own "biographies, skills and interests and research environments" (Brannen 2008, 63).

Designing research on clubs, drugs, and youth

In the late 1990s, politicians, treatment officials and researchers began to raise alarm about the rising popularity of the drug Ecstasy (MDMA), which was increasingly the drug of choice among young people who attended electronic-dance-music parties called raves. Issues of risk, threat, and danger dominated official discourses about raves and club drugs (Collin 1997;
Critcher 2000; Hier 2002; Jenkins 1999; O’Malley & Valverde 2004). At that time, although some research had been conducted in the UK and Europe, little work had been undertaken in the US. Consequently, in spite of the media concerns, there was little detailed knowledge about the prevalence of ecstasy use among young people, the meanings and motivations associated with its use, or its relationships with dance events. Furthermore, in all the media attention, the voices of the consumers, the young dancers and attendees of raves were largely unheard and undocumented.

With this in mind, we designed an initial project to explore the dance scene in San Francisco, examine the characteristics of young people involved in it, and understand the experiences and meanings associated with their ecstasy use (Hunt & Evans 2008; Hunt et al. 2009; 2010). To do this we designed a research strategy that incorporated a mixture of methods. To orient ourselves for the project, we “mapped” the nightlife scene, attended licensed and unlicensed raves and clubs, and interviewed a range of key informants including nightclub owners, promoters, DJs, local government officials and police. Our primary work, however, was in the form of in-depth interviews with 300 rave attendees and “club drug” users, using a combined quantitative and qualitative interview schedule. We later expanded this San Francisco project in multiple directions. One extension focused specifically on Asian American youth in the dance scenes, as we found that despite the scene’s reputation as overwhelmingly white there were sizable numbers of Asian American youth involved with nightlife and ecstasy use (Hunt et al. 2005; Hunt et al. 2011; Moloney et al. 2008). More recently we have extended this to a study of club drug use among Asian American gay and bisexual men, examining intersections between issues of ethnic identity, sexual identity, and drug consumption (Fazio et al. 2011; Fazio et al. 2010).

We also wanted to extend our understanding of drug use and dance scenes away from the local and specific focus of San Francisco. Despite the increasing globalization of the dance and drug scene, our knowledge was relatively restricted to single cultures and locales. Consequently, we adopted a cross-national or transcultural approach (Bucholtz 2002) to examine the inter-play between global developments and local features. First, we explored the global history and reach of the dance scene and its various permutations (Hunt & Evans 2003; Hunt et al. 2011). Second, we undertook comparative research, working with international colleagues to develop parallel research projects studying club drug use in Hong Kong (Joe-Laidler & Hunt 2008; Joe-Laidler et al. forthcoming) and in Rotterdam, Netherlands (Hunt et al. 2011). These projects, though smaller in scale, were designed with similar research methods and interview protocols to allow for comparisons of both quantitative and qualitative data across the multiple projects and locales and to enable the use of our coding schema to organize and analyze the data in these projects in tandem.

Mapping the scenes: recruiting participants and the role of fieldwork in interview-based studies

In selecting in-depth interviews as our primary data-collection tool, we run the risk of missing perspectives and contexts
that may only be obtained in the field, as in classical ethnographic immersion (Demant et al. 2010). With this in mind, all of our projects have had some observational elements and fieldwork. One important initial step has been mapping local nightlife scenes. In each project we have conducted ethnographic observation in a number of venues (raves, clubs, bars, etc.) to gain a better understanding of these as youthful leisure and consumption arenas and to begin recruiting participants for the interviews. Fieldworkers utilize a detailed observational protocol to organize observations and notes, which directs them to identify and describe the characteristics of the patrons, observe staff behaviors and policies, outline the venues physical characteristics, and describe observable norms inside and around the venue including social interactions, gender roles, prevalence of violence and other high-risk behaviors, drug and alcohol purchase and consumption and apparent levels of intoxication.

The benefits of fieldwork include the ability to note contextual features that may not be readily apparent in interviews, to gain a lived, tactile sense of the social worlds of the participants, and to witness and experience the interactions that comprise this social world. In addition, having a presence in the field can be a crucial element for finding the very participants we seek to interview (Clatts et al. 2001). This is particularly vital when working with “hidden” populations, including illicit drug users and sellers, which often entails complications in gaining access and establishing rapport (Adler 1990; Dunlap & Johnson 1999; Fagan 1989; Griffiths et al. 1993; Singer 1999).

Although standard probability sampling techniques are not feasible with such hidden populations, this does not mean that we were limited to convenience samples, as in studies that draw on treatment populations. Qualitative and mixed-methods researchers have developed a variety of innovative approaches to access more diverse and representative samples of hidden populations, although some degree of sampling bias and limitations to representativeness inevitably remain. We have found it most efficacious to combine strategies from a variety of sampling strategies – venue-based sampling (Arcury & Quandt 1999; Stueve et al. 2001; Kelly 2010), targeted sampling (Bluthenthal & Watters 1995; Carlson et al. 1994; Peterson et al. 2008), and respondent-driven sampling (Heckathorn 1997; 2002; Ramirez-Valles et al. 2005; Wang et al. 2005), rather than adhering strictly to one model alone.

Our success in utilizing these different sampling strategies has varied. In our initial club drugs study, focused on raves, we found that the open environment of the rave facilitated engaging with youth in the venues themselves. There we located many eager young people who wished to participate in interviews with the desire to dispel stereotypes and negative images of this youth subculture. In other studies, however, recruitment has been more of a challenge, such as in our current project on Asian American gay and bisexual men in the club scene. We have had to be creative and utilize as many different avenues as possible to recruit participants for interviews – developing contacts and a presence in the scene and with community-based organizations, extensive advertising (and revisions to advertisements to ensure they are culturally acceptable), and increasing
use of online recruitment and social network presence. In each of our projects, we have utilized some degree of chain-referral (snowball sampling), which has been crucial to gain access to respondents who would have been unreachable otherwise (Atkinson & Flint 2001; Biernacki & Waldorf 1981; Browne 2005; Joe 1993).

Techniques for recruiting club goers in Hong Kong and Rotterdam initially followed the framework laid down in the San Francisco study, but diverged in some ways to account for local differences. In Rotterdam researchers identified over 100 clubs through collection of fliers and advertisements associated with the dance scene. Respondents were recruited directly from clubs as well as through fliers and advertisements in places frequented by potential club goers, and to a lesser extent through chain referrals. In the Hong Kong study, chain referrals were much more central to the recruitment, accounting for 46% of the sample, in addition to participants recruited from research contacts from previous studies and some recruitment at drug outreach and treatment centers (Joe-Laidler & Hunt 2008). Despite the importance of structured methods and consistent strategies, we have always found it necessary to remain flexible in many of our approaches in larger qualitative studies such as these.

Insiders, outsiders, and large research teams

One key difference in the two major approaches to studying youthful drug use – epidemiological surveys vs. ethnographic cultural studies – is the level of involvement of the researchers. Whereas survey researchers typically have minimal direct engagement with respondents, often engaging specialist survey companies to collect the data, ethnographic researchers become personally involved with their respondents, documenting their accounts of their own experiences and uncovering the processes of being young. Many qualitative youth researchers strongly criticize scientism and the role of researcher as the "outside expert," instead emphasizing the importance of doing "self-as-insider" research. Youth researchers, following in the footsteps of Becker (1963), Cohen (1955), Polsky (1967), and Willis (1977), have argued that insider knowledge is essential to understand the meaning of leisure activities for young people (Abbott-Chapman & Robertson 2009; Jackson 2004; Malbon 1999; Reynolds 1998).

Although somewhat sympathetic to these critiques, our decision to conduct large-scale qualitative research does not immediately lend itself to adopting the researcher-as-insider position. Furthermore, the insider position, while attractive, is not without methodological and theoretical concerns of its own (see for example Davies 1999; Ellen 1984; Ellis & Bochner 2002; Hunt et al. 1988; Okely & Callaway 1992; Strathern 1987), such as the problem of cultural sameness, which may make it hard to suspend preconceptions (Hammersley & Atkinson 1983). Unlike insider researchers who step into an environment that is all too familiar, the outsider researcher enters an unknown and alien environment. While it is clear that being an insider may lead to a heightened sensitivity and knowledge of the topic under research, as well as advantages for gaining access and developing rapport with research subjects, the outsider position also
possesses important features that can lead to a different form of sensitivity.

One benefit of the large-scale qualitative research model comes from working in a team. While some researchers thrive by working on their own in the classic anthropological tradition, we found a team environment beneficial for our work. This was especially true in the insider/outside debate. While the senior researchers knew little of the dance scene or electronic dance music, others in the team possessed extensive first-hand experience and were able to be more self-reflexive about information coming from their observational work and the interview data. From these contrasting perspectives, we sought to combine the interpretations and insights of both insider and outsider and in so doing counteract the dangers of relying exclusively on one or the other. Combining the richness of personal experience with the dance scene or rave community and the fresh eyes of an outsider’s perspective can lead to a nuanced and sensitive analysis and understanding of the world of dance clubs or other youth cultural formations (although heated discussions often ensue in interpreting interview data). In discussing insiders vs. outsiders, we are not conceptualizing this as a contrast between a “subjective” insider position in contrast to detached, “objective” outsider researchers; rather we emphasize the importance of drawing on and recognizing the different subjective perceptions, insights, and standpoints of both. The combination of insider and outsider perspectives has been particularly helpful in our comparative/international projects. Having research teams based in the US, Europe, and Asia allows us to draw on the insights of each team working in their own region. In addition, we have gained important insights by having European-based researchers examining and analyzing the American data, US-based researchers analyzing the Hong Kong and European data, and so on.

In conducting large-scale qualitative research with a fairly large team, we have discovered over the years the importance of eliciting the insights and perspectives of all members of the research team – from research assistants through principal investigators. Structured research projects necessarily entail a division of labor, with different people interviewing, transcribing, analyzing and writing articles. While this has benefits of efficiency it also introduces the danger that the insights of some members get lost or are not translated to the rest of the team, especially if roles become too compartmentalized. We have found that the research results are greatly benefited by enabling all team members to participate in discussions, writing, and analysis of diverse aspects of the project. This enables a diversity of ideas emanating not only from the various social locations of the different individuals, but also their different relationships with the data – the line-by-line readings of the coders, the personal interactions of interviewers and fieldworkers, the distanced perspective of some analysts.

Promises and pitfalls of the interview

We noted above some potential downsides of a study that focuses more on interviews than on field observations. Interviews take place in a decontextualized environment, outside the milieu of focus (raves, clubs, parties). Certainly some nuances of social
context are lost by not directly observing each participant at work (and play) in their actual environment. Yet, there are some advantages to in-depth interviews. Lengthy, private, off-site interviews can allow for conversations that would not be possible in the context of a noisy dance club or rave or while young people are with their friends and social group. Talking to young people in formal interviews provides a great deal of information about their social worlds, their perceptions and discourses, and the narratives they construct about their lives. Thick, detailed, incredibly rich and often quite insightful accounts are provided by our young respondents in these interviews. The interview also provides a space for conversation about issues. And while interview topics are limited to a degree to the preconceived ideas of the researchers, the use of a semi-structured interview schedule with open-ended response and space for respondents to elaborate and bring up other issues does allow for additional issues and ideas to emerge.

Our interviews typically take place either at our offices, in local community-based centers, in the respondent’s home or, even on occasion, in coffee shops. The interviews themselves can take up 4 hours to complete, as the interview schedule is lengthy. Given this length, we recognize the potential for interview fatigue and take steps to ensure the physical and emotional comfort during the entire interview process, including frequent breaks. The schedule includes a standardized series of pre-coded/closed-ended questions that collect socio-demographic data and drug and alcohol use data, in addition to the extensive schedule of open-ended questions and topic areas, which comprises the lengthiest part of the interview. While interview topics are limited to a degree to the preconceived ideas of (us) the researchers, the use of a semi-structured and open-ended schedule does allow for additional issues and ideas to emerge. This style of data collection allows for a free flow of discussion on the issues most relevant to each participant, with the interview guide serving to focus and direct the discussion areas. These are not, however, unstructured interviews. The semi-structured schedule covered such topics as background and current life; ecstasy and club drug use including initiation and health and social consequences; involvement in drug sales; and finally experiences of raves and clubs. We use a detailed interview guide to ensure a general degree of consistency between interviews, since we typically have 2–4 interviewers working on a project. Some qualitative researchers worry that the collection of quantitative data within an interview will interfere with the flow or rapport that is necessary to encourage detailed, honest discussions in qualitative interview. However, we have found that alternating between brief series of closed-ended questions and longer, more detailed open-ended sections helps to provide natural breaks in the interview, giving interviewer and respondent alike a moment to breathe and refocus amidst the sometimes difficult emotional labor of an in-depth interview.

One perennial difficulty in in-depth interviewing is achieving a balance between obtaining the necessary data, while still maintaining a reasonable interview length. This is particularly the case with mixed-methods interviews, if one wishes to gain detailed quantitative and qualitative data.
Our interviews typically last between two and four hours. Although respondents often remark that they enjoyed the interview, it is an intense experience for many due to the breadth, depth and sensitivity of the material covered. Nonetheless, this level of detail is important in order to address our broad project aims, take into account emergent areas of inquiry, and triangulate sources of data to ensure valid accounts. A longer interview permits repetition of questions in different forms as a check on invalid or unreliable information. A longer interview also provides the benefit of allowing the interviewer additional time to establish rapport with the respondent – something that is particularly essential when dealing with sensitive topics such as illicit drug use.

Embarking on lengthy interviews requires us to take into consideration a number of issues – from the reluctance of participants to turn off their mobile phones or refrain from sending text messages for such a long time, to the necessity of providing ample breaks and food snacks to keep both interviewer and respondent refreshed throughout the interview. Another issue is simply the willingness of potential participants to spend so much of their time. We have found that age is an important factor. Younger, teenage respondents often grow impatient with longer interviews in a way that our respondents just a few years older do not. On the other hand, while most of the younger respondents are willing, even eager to participate in interviews, even after we warn them of the length, older respondents who often have professional or familial commitments, are often disinclined to commit to a 3–4 hour interview. For many younger respondents, the US$50–75 honorarium that we provide adequately covers the wages that would be “lost” if the respondent were to participate in the interview. This is less often the case for respondents who are employed full time, particularly in a professional capacity. In those instances respondents participate only if they perceive some other value in doing so, such as a belief that participating in the project will contribute to social science or public health issues, or will help in re-adjusting media misrepresentations of their scene. Tailoring recruitment strategies and materials to take into account each of these factors can increase their likelihood of success with particular populations.

Managing large qualitative datasets

One significant challenge of conducting relatively large-scale qualitative research is handling the massive amounts of data the projects generate – what Johnson, Dunlap and Benoit (2010) referred to as “mountains of words.” With 300 or more interviews, each generating 60–70 pages of transcripts, a single project can generate over 20,000 pages of transcribed interviews, in addition to quantitative survey results, field notes, and the memos and coding we develop once analysis commences. It is common to become overloaded or overwhelmed by the sheer volume of the data and therefore necessary to implement careful procedures to manage the data in its multiple forms (Miles & Huberman 1994). It would be easy for potentially significant findings to become lost in the shuffle and it can be difficult to step back to see the big picture and overall patterns, when enmeshed in so many individual
points and cases. To address, or at least mitigate, these issues we have adopted a number of different strategies to manage, and ultimately analyze, our multitude of data.

**Face sheets**

One simple, but quite helpful, tool we use is the "face sheet." Face sheets are prepared by the interviewers shortly after each interview and serve as a quick reference tool. Typically 6–10 pages in length, they summarize the major themes of the interview and include descriptions of the respondent’s speech patterns, behavior, and physical appearance. Added to the face sheet are descriptive and quantitative demographic and drug-use data, helping us to keep qualitative and quantitative data in focus at the same time. Face sheets capture the interviewer’s perceptions of the respondent, which provide a context for the interview that may be lost in the transcription and coding process (McLellan et al. 2003). They also serve as a quick-reference guide to the interview that can highlight areas that may be of interest later in the analysis process, providing a basis for the generation of themes for coding. Face sheets thus provide a helpful bridge between data collection and data analysis.

**Coding**

The second step of the qualitative data analysis involves the generation of codes for systematically organizing the interview narrative data. After approximately 50 interviews have been completed and read by senior staff, we develop a list of codes, or thematic categories, to apply to each interview transcript to organize the themes and topics within them. The codes we develop are based on key concepts in the relevant literature, issues that emerge from reading transcripts and face sheets, as well as using codes developed in previous projects. Using parallel codes across projects has proven essential for allowing comparative analysis of multiple locales in our club drugs projects.

The ability to successfully carry out larger-scale qualitative research projects is significantly enabled by computer-assisted qualitative data analysis software ("CAQDAS") (Bong 2002; Kelle 1995; 2004; Welsh 2002), in our case NVivo. The software is a tool for organizing the interview transcripts so that we can pinpoint and retrieve specific elements of the text to focus on for different analytical projects. As methodologists specializing in these techniques point out, however, the term "qualitative data analysis software" can be quite misleading, as this software doesn’t "do" the analysis, rather its main function is to help structure and organize the data (Kelle 2004).

Our codebooks tend to be extensive – a recent project has approximately 120 individual "nodes" to be coded. However, many of the codes we use are relatively straightforward – for example, nodes for each drug discussed, for various drug-using contexts, and for discussions of different social groups. Since multiple people work as coders on each project, and other team members utilize the coded data for analysis, it is important to have easy-to-understand coding categories to enable a common understanding of codes across the team. Once codes are standardized, staff members code the same interviews together to establish a clear and common grasp of the coding system. However,
while simpler codes reduce the judgment calls that need to be made by coders and enable greater inter-coder reliability, it also means that more sophisticated concepts may not be coded at this level. Instead, we often find ourselves doing some degree of ad hoc informal coding of the data during the analysis phase, in which we further sort and categorize the coded data along more subtle lines while working on a particular project. Thus a tricky balance must be achieved in establishing coding categories, and similarly in deciding just how inclusively and comprehensively to code – applying codes too narrowly risks missing out on key data, applying codes too broadly generates data overload making it difficult to separate the signal from the noise.

Another danger of coding is the way that it further severs the words of the transcript from the context of the interview and the person of the respondent (Agar 1991; Seidel 1991). From interviewer to transcriber to coder to analysts there are many steps of removal. If a researcher wants to pull up all of the references to a particular substance, social scene, discussion, etc. it is simple to do so using the software (NVivo). Yet the results one obtains – pages and pages of excerpts from interviews, each separated by the unique code number assigned to each interview – can often feel abstract and decontextualized. It is easy to lose sight of the person who uttered the words and the context in which he or she said them. Yet as many of our primary research goals center on understanding context and meaning, these elements are essential to retain.

Thus we cannot rely on the coded data in isolation, but must integrate our reading and analysis of this with other tools, documents, and approaches. Despite the coding process, all senior researchers read significant numbers of full transcripts or in some cases listen to the audio recordings of the interviews. In addition, the face sheets are essential. By reading coded textual nodes with the face sheets at hand, the analyst can quickly get a snapshot of the respondent, the general trajectory of the interview, and the reflections of the interviewer, which often contain insights that are hard to discern from the transcripts alone. Thus this is not an entirely linear process – from transcripts to face sheets to coded data. Instead we iteratively move from the small-scale discursive details that the coding enables focusing on to the contextual and narrative issues that the face sheets highlight, back again to the details of the coding. In addition, and interspersed throughout all of this, is engagement with the quantitative data as well.

**Combining quantitative and qualitative data and the role of theory**

While our research expertise is largely qualitative, we understand the value of providing descriptive statistics that describe our sample as well as integrating these data into an overall analysis with in-depth contextual and narrative data. Our mixed-methods model comprises concurrent quantitative and qualitative data collection (Onwuegbuzie & Leech 2004), with iterative analysis that moves from one style of data analysis to the other, in order to benefit from the complementary strengths of both (Creswell 2003; Tashakkori & Teddlie 2003). We use data from one method to elaborate on data from the other
For example, we often begin with the quantitative drug-use data, establishing the drugs used by our respondents, rates and frequency of use, and different patterns of use by subgroup (ethnicity, age, socioeconomic status, nativity, etc.). We can then move from this quantitative data to qualitative analysis, by examining the narrative discussions of drug consumption and of particular drugs within the qualitative open-ended interviews. Given the richness of qualitative data from open-ended interviews, we will not simply be looking at what drugs respondents use in which contexts, as we did with the quantitative data, but rather be able to analyze the significance attached to these substances and these contexts by young people (and different subgroups thereof) in order to better understand the meanings, context, and motivations for use. A clear advantage of using a mixed-method approach that emphasizes qualitative analysis is that we can both describe what is happening and provide an interpretation of it; thus we can supply ideas or theories about the process as well as about the outcome (Hunter & Brewer 2003; Maxwell & Loomis 2003). The two data types can also act as partial checks on one another. For example, we can compare respondents’ perceptions of drug preferences and popularity with the actual patterns of use (dosage, frequency of use, methods of ingestion, polydrug use) reported in the quantitative data.

Although the analysis of qualitative data is sometimes discussed as a purely inductive matter in which theories simply “emerge” from the data, some degree of theoretical background or baggage is always present within any analytical endeavor, whether fully acknowledged or formalized or not. In our work, analysis of the data is co-terminous with engagement with and reading of various research literatures and development a theoretical perspective. Rather than being a purely deductive (theory-driven) or a fully inductive (data-driven) process, this is an iterative, somewhat circular process that involves going from theory to data to theory to data with each informing the other and providing the impetus for asking further questions. To cite a recent example from our Asian American club drugs study (Hunt et al. 2011; Moloney et al. 2008), reading literature on acculturation and acculturative stress as contributors to substance use (Berry 2005; Bhattacharya 2002; Hahn et al. 2004; Salant & Lauderdale 2003) sensitized us to examples of these in the respondents’ discussions of ethnic identity and drug use. These were important issues among some participants. Some discussed their drug consumption as an indication of their acculturation to American values and as something that distinguished them from other “typical” Asian Americans. Others discussed using drugs as in part a response to the stresses of navigating between the conflicting expectations of American and Asian cultural norms. However, many other respondents’ discussions were not understandable using these frameworks and touched on different issues entirely. Many discussed drug use as something taken-for-granted and normalized within their Asian American youth cultures and the dance scene. This led us back into the research literature, to re-engage ourselves with the debates about drug normalization (Measham et al. 2001; Parker et al. 1998;
Using this literature, we then returned to the data and examined convergences and divergences in the respondents’ narratives and potential applicability (or not) to patterns recorded in both the qualitative and the quantitative data.

However, theory does not play a role in our analysis solely in this narrow sense of going to various research literatures to focus on individual sub-topics. There are also broader sets of theoretical assumptions that drive and guide our work as a whole. Among these are an emphasis on subjectivity and agency of youth; the intersectionality of gender, sexuality, ethnicity, and class; and the role of consumption – including consumption of drugs and alcohol – in the construction of identities and the structuring of social groups and practices. This latter point has been particularly salient in much of our work, as we examine the ways in which young people draw on drug and alcohol consumption as resources in the construction of their identities and in marking their membership in in-groups and out-groups. Intersections between substance use and identity, including ethnic identity, have been a focus of some drug and alcohol scholars (Rief 2009; Willis 1978; Wilson 2005). However, this work has often been conducted in relative isolation from the broader literatures on consumption and identity found in sociology, anthropology, and cultural studies. Our work, however, seeks to reframe alcohol and drugs not as “essentialized substances” (McDonald 1994) entailing a separate, unique type of consumption, but as interrelated with and embedded in a range of types of consumption that are central to identity construction and social life today – from consumption of clothes and fashion, to food, to music and technologies (Hunt & Barker 2001; Moloney & Hunt forthcoming). To fully understand drug and alcohol consumption, it is important to understand contexts of consumption, relationships to other forms of consumption, and their sense of being embedded in constructions of self and identity (including ethnic, gender, and sexual identities). Thus we have continually sought to join our work on drug use to broader literatures on youth cultures, consumption, and identity construction.

Conclusion
Oppositional or alternative methodological perspectives in the study of youth cultures and drugs have dominated the research arena. At one end of the methodological spectrum, epidemiological or survey research has embarked on large-scale projects, involving extensive research teams. At the other end, lone researchers have engaged in intensive ethnographic studies interviewing small numbers of respondents. Although these alternative approaches have monopolized the study of youthful drug use, we have adopted a different approach, which emphasizes qualitative methods, but at the same time combines features of both alternatives. We have engaged in extensive mapping of the nighttime economy, short-term ethnographic observational work at clubs, raves and parties, interviews with key informants, and, most importantly, in-depth interviews with relatively large numbers of respondents. Because of the hidden or hard-to-reach nature of youthful drug users, we have been obliged to adopt different recruitment strategies from the methods
used for a standard probability sample.

Amidst the many challenges we have faced while attempting to analyze these projects, we have had to confront the age-old problem of explicating theory through empirical data. This dialectical interchange between theory and data has been particularly challenging in our attempts to understand youth cultures and drug use within a period of rapid social change. Not only have young people experienced a weakening of traditional sources of social differentiation based on social class and communities (Furlong & Cartmel 1997; Miles 2000), but also youth cultures and lifestyles built around the consumption of music, clothes and shared media have gone global (Hagedorn 2007; Maira & Soep 2005; Nilan & Feixa 2006; Pilkington et al. 2002). Given these changes, research on single cultures has been increasingly shown to be insufficient to explain the development and changes taking place within youth cultures (Pilkington & Bliudina 2002). When we embarked on our research on drugs and dance cultures in early 2000, the importance of conducting comparative cultural research became obvious. Contemporary youth dance scenes in different parts of the globe highlighted the extent to which young people borrow, develop and modify cultural practices including dance, music, dress and drugs. "The evolution of ‘club cultures’ around the world can be attributed....to the ongoing global processes of cultural borrowing" (Carrington & Wilson 2002, 74).

In light of these developments, we very quickly extended our work to include research on other youth cultures in other countries and specifically in Hong Kong and Rotterdam. We sought to compare not only the different developments in dance cultures and nighttime economies, but also the possible cross-cultural differences and similarities in meanings of drug use. Did young people in different locales share similar motives for consuming drugs? To what extent were their reasons for using drugs influenced by global versus local pressures? In conducting this cross-national work, we used the same research strategies that we had developed in our work in San Francisco. Although we confronted many programmatic obstacles in getting the research underway and soon became aware of significant cultural research differences, we found that our mixed-methods approach worked well. In fact, we would argue that our experience of conducting cross-national mixed-methods research suggests a possible way forward within the field of drugs and youth cultures. Currently, there exist a number of cross-national surveys of drug consumption and drug problems. These quantitative studies, while important, have produced too little data on the socio-cultural background of the young people, the social and cultural contexts within which they exist, or the cultural and symbolic meanings associated with their consumption of illegal drugs. We believe that to focus solely on survey data and omit the other cultural elements in the lives of young people is to miss an important element of cross-national research, especially if we wish to understand the role of illicit drugs within youth cultures globally. On the other hand, there are many small-scale qualitative studies of drug consumption in various countries and cultures, which do focus on these issues of culture, context and meaning. However, given the idio-
syncratic nature of various ethnographic projects, it is sometimes hard to analyze these together in a comparative manner – two seemingly similar projects may be conducted with quite different methodologies and assumptions. However, if in conducting cross-national research we adopt a mixed-methods approach utilizing structured qualitative methods, we may then begin to understand the impact of global and local developments on the culture of drug consumption within the lives of young people.

Declaration of interest None.

NOTES

1 We have utilized similar mixed methods and large-scale qualitative research projects for our extensive studies of gender, ethnicity, substance use, and violence within San Francisco street gangs, but confine our examples to our club drugs studies in this article, for length and clarity’s sake.

2 This is, of course, not a problem that is unique to computer-assisted coding projects. Even in less technologically sophisticated times, the old habits of highlighting, and cutting and pasting transcripts or field notes (either literally, as on index cards, or later metaphorically using word processors) had their own versions of alienating the analyst from the interview. The difference in using qualitative data analysis software is hence more a difference in scope or scale than a difference in kind.

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