

Psychoactive substances among Electro party scene enthusiasts

Results of a quantitative survey in a hidden population using an ethnographically reasoned sampling plan

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Public health professionals have been concerned about the growth of ecstasy use among electronic music enthusiasts for some fifteen years. More recently, this concern has been increased by the growing use of cocaine and poly-drug-use habits. The need for detailed information about the level of psychoactive substance use in this population led OFDT to conduct a study to estimate the prevalence of psychoactive substance use in the so-called “Electro” party environment as part of its TREND scheme between 2003 and 2005. This study was conducted in five city locations (Toulouse, Nice, Bordeaux, Metz, Rennes).

The study* provides prevalence estimates of psychoactive substance use in people frequenting the Electro party scene in France. This groups together the so-called alternative party scenes (rave and free parties) and conventional party scenes (nightclubs, music bars). In 1999, a study by the association Médecins du monde produced prevalence estimates in this population although their representativeness was limited to the association’s public, and data was mostly collected from harm reduction stands at party events (1). This work also therefore provides exploratory methodological information: establishing and applying a survey technique in order to obtain a sample which is representative of the party population.

Method

The party population is a hidden population: in the absence of a survey database listing members, the key difficulty is in establishing a representative sample. Other European studies have set rules to broaden the content of their samples although there is still no control for selection bias (2, 3). However, whilst the Electro party population is not available as a “listing”, people do gather together intermittently in identified locations (alterna-

tive events and late-night establishments). Our ability to geographically locate the population was the key factor in establishing the methodological strategy (4, 5).

The study involves a qualitative part intended to establish a sampling plan using ethnographic information and a quantitative part involving questionnaire collection and processing. This study was conducted in two phases. The ground work (ethnographics and collecting questionnaires) was firstly undertaken on an exploratory basis on two sites, Nice and Toulouse (October 2003 – June 2004). The study was then extended to Bordeaux, Metz and Rennes (October 2004 – May 2005).

Qualitative part

Ethnographic information about the numbers frequenting the party scenes identified (observations, semi-directive interviews with key people, visits to specialist websites), provided a better understanding of the organisation of the party scene as well as quantitative estimates of the size of the target population. The initial intention was to identify the internal organisation of the Electro party scene depending on the style of music listened to in the different locations frequented by the population. The ethnographics showed that the styles of music listened to overlapped among sub-groups of the party population who do not frequent the same locations and do not have the same definitions of self nor the same party expectations. On the other hand, the data analysis showed an identical organisation approach for the Electro party scene in Nice and Toulouse, which was then found again in Bordeaux, Metz and Rennes. The party population was therefore represented by a typology characterised by four “affinity groups”, homogeneous sub-groups in terms of the locations frequented by each group, the representation of their identity and the way they are perceived by external observers (see box).

*Reynaud-Maurupt C, et al., Pratiques et opinions liées aux usages des substances psychoactives dans l'espace festif "Musiques Electroniques". Étude de faisabilité d'une enquête quantitative en population cachée à partir d'un plan de sondage ethnographiquement raisonné, OFDT, Saint Denis, 2007.

Study locations were then selected from a listing of places frequented by each affinity group. Despite population overlaps, each of the four groups frequents a series of party scenes unique to them. An internal hierarchical organisation of these different locations was found. Party scenes are divided into those known as "centrals" which may be frequented by all members of an affinity group and into locations described as "peripheral" frequented

Affinity groups

The Alternative group brings together free party and rave party enthusiasts (no teknival during the reference months). Free parties are usually organised outdoors, bring together approximately 200 to 2,000 people, and are free or have a donation-based entry system. Free enthusiasts claim an offbeat, "counter-culture" image. The musical compositions listened to in these gatherings are amongst the most aggressive trends in the Electro family: Hard-core, Hardtekno, Tribe. Rave parties, which have admission fees, bring together up to 6,000 people in covered premises hired for the occasion (winter period). Rave enthusiasts also see themselves as having a counter culture, albeit with a more hedonistic tinge. The styles of music listened to are separated, and usually several sound platforms and dance floors provide a choice of music genres: Trance, Jungle, Drum 'n' bass etc., but also Hard-core and Hardtekno.

■ The Urban Party group is defined as being more music-impassioned than the others and is found in music bars and sometimes in Electro festivals. Its members choose a place essentially based on its musical programme. It has a higher proportion of students than the other groups. The music trends listened to by this group are varied and cover almost the entire range of music listened to elsewhere in the alternative scene: Hard-core, Hardtekno, Tribe, Drum&bass, Jungle, Transe, Electro Dub. The major population overlaps come from the porosity found within the Alternative group.

■ The Clubbing group involves enthusiasts of establishments called "Club Electro" (nightclubs and "Before" premises) some of which are described as "Gay Friendly". This group is made up mostly of a hedonistic population which spends a large amount of money on going out and clothes. The music played is generally House and Dance, music trends rarely or never listened to in urban or alternative parties. However, styles that electronic sound aesthetes are keener on are also played: Trance, Jungle, Electro Dub, Drum'n'bass, etc.

■ The Select group frequents locations usually accessed through cooptation, and cultivates an internal chic and hip image. The other affinity groups deem the Select group's favourite premises "middle class" and describe their musical programme as consisting mostly of House and Dance. The Select group has no, or very little, overlapping with the other groups.

by only part of the group. Attendance at centrals in a given month (October or November) was deemed to be a good estimate of the size of each affinity group.

The numbers attending each central were calculated from the capacity of the establishments or parties, the number of parties in the month, the estimated number of people going to several parties in the month and flow variations between the week and the weekend. These quantitative estimates are obtained from the heads of the party premises (owners or managers for late-night establishments, organisers for party events). If several centrals were found for the same affinity group in a town, the clientele overlaps were taken into account in order not to over-estimate the total population (triangulation of data obtained during interviews with the heads of the party premises). Hypotheses on the degrees of overlap of the four affinity groups were then made to revise the overall estimates. Because of the small number of centrals found in each town,

we investigated all of them. We applied a stratification by affinity group, keeping the relative size of each group in the sample. Numerical estimates of the population are shown in table 1.

Collection of quantitative data

The questionnaires were usually administered at weekends and occasionally during the week, depending on the weekly distribution of people frequenting the late-night establishments. In order to randomly select the respondents, the investigators went to a place understood to be frequented as equally as possible by all of the participants, taking account of space and noise limitations. If the configuration of the premises did not enable the investigators to be stationed, as was the case for open-air party events and a minority of music bars, the investigators were instructed to diversify their recruitment by moving around the premises. Using this procedure, 1,500 questionnaires were obtained and

Table 1: Numerical estimate of the Electro population by town site

Town Site	Estimate* Size of party population	Projection** Number of 20-29 year olds in the party population	Comparison with census data*** Estimate pourcentage of the Electro party population Amongst 20-29 year olds	Dominant Groups
Nice	4 000	2 604	2,4 %	Clubbing
Toulouse	9 000	6 910	4,2 %	Alternative
Bordeaux	6 000	4 030	2,7 %	Alternative & Select
Metz	3 000	2 242	3,6 %	Alternative
Rennes	10 000	7 987	8,3 %	Urban Parties

*From the qualitative phase data from our study.

** Application of the age group distribution of our survey results to estimate the total population

*** Insee data, 1999, Recensement, Urban areas (town and conurbations).

Table 2: Social characteristics

	N	%	Weighted % estimate
Men	958	64,0	65,5
Single (n = 1493)	1158	77,6	77,3
With children (n = 1403)	123	8,8	8,4
Under 20 year olds	183	12,2	10,9
20 - 24 year olds	646	43,2	45,0
25 - 29 year olds	401	26,8	27,1
30 year olds and +	266	17,8	17,0
Higher studies post « baccalauréat » (n = 1486)	797	53,6	52,4
Own personal résidence (n = 1491)	801	53,7	53,3
Residing with parents, family (n = 1491)	364	24,4	22,1
Residing in joint rented premises (n = 1491)	229	15,4	16,3
Precarious residence - friends, squat, homeless, lorry, institution - (n = 1491)	97	6,5	8,3
Monthly income less than 1,000 €	858	57,6	62,8
Continuous remunerated activities during the last 6 months (n = 1490)	673	45,2	41,1
Students during the last 6 months (n = 1490)*	246	16,5	16,5
No social security coverage (n = 1492)	13	0,9	1,2

* Students with paid work were classified only as students

1,496 retained for the analysis - 476 from the alternative group, 398 from the Urban parties group, 430 from the Clubbing group and 192 from the Select group.

An objective was set of 300 questionnaires per town regardless of the numerical estimate of the population there: as a result, the statistics shown give estimated percentages weighted by the estimated size of the party population in each town.

Results

The average age of the population was 24 years old, two thirds were male, and the population consisted mostly of single people without children (table 2). An analysis of the social characteristics by affinity group showed a gradation between people found on the alternative scene and those on the Clubbing and Select scene; those on the Urban Party scene occupied an intermediary position between these two extremes. The people on the Alternative scene were younger and lived a more precarious existence: they accounted for 49% of the non-working people in the sample and 39% of those with intermittent paid work, as well as 38% of those living with their parents and 50% of those with precarious living conditions (living with friends, in lorries, in a squat, in institutions or on the street).

High incidence of experimentation

Almost all of the people met had experimented with cannabis, more than 60% with cocaine and 70% with ecstasy (table 3). At least one out of every two people had experimented with hallucinogenic mushrooms, LSD, amphetamines and poppers. There was less experimentation with other substances although the prevalence remained high in view of the type of substances (heroin and crack in particular). Experimentation rates differed significantly between the groups, including for cannabis, despite the fact that this drug was extensively used. In all cases, prevalence figures were highest in the Alternative group.

Recent use

In addition to tobacco and cannabis, which were extensively used, (87.4% and 68.5% respectively, during the month before the survey the magnitude of recent ecstasy (32.4%) and cocaine (34.6%) use was particularly notable. 55.1% of people had taken at least one psychoactive substance excluding alcohol, tobacco and cannabis in the previous month. Seven out of ten people in the Alternative group had recently used cocaine and/or ecstasy and eight out of ten had used at least one substance (excluding tobacco, alcohol and cannabis) (table 4).

During the previous month, 43.2% of people questioned stated that they had mixed three different substances during the same evening at least once (alcohol and cannabis included, tobacco excluded). Alcohol use du-

Table 3: Experimentation with the main illegal or misused psychoactive substances in the whole sample and in the affinity groups

	%	Weight % estimate	Alternative N=476 %	Urban N=398 %	Clubbing N=430 %	Select N=192 %	P
Cannabis	93,6	95,1	98,9	96,0	88,1	87,5	0,0001
Hallucinogenic mushrooms (n = 1481)	54,9	60,9	81,1	59,2	33,3	28,9	0,0001
Crack or free base (n = 1458)	20,6	24,3	41,1	15,4	9,4	6,8	0,0001
Non-base cocaine (n = 1488)	62,6	65,3	81,2	59,4	51,4	48,4	0,0001
Ecstasy (n = 1494)	67,7	70,4	92,8	64,7	55,1	40,1	0,0001
Heroin (n = 1474)	23,1	26,5	40,7	19,2	12,0	11,8	0,0001
Ketamine (n = 1484)	16,4	19,6	32,1	12,4	7,3	6,3	0,0001
LSD (n = 1488)	45,4	50,7	71,4	43,8	27,8	22,8	0,0001
Amphetamines (n = 1492)	46,8	51,3	77,7	39,3	29,5	24,5	0,0001
Poppers (n = 1470)	50,6	50,3	53,1	45,3	56,9	41,1	0,0003
Opium and/or poppy rachacha (n = 1482)	28,3	33,8	52,2	26,9	12,2	8,4	0,0001
Benzodiazepines (n = 1420)	9,5	9,0	14,6	7,9	6,8	6,6	0,0002

Table 4: Recent use (last month) of the main legal or misused psychoactive substances in the whole sample and in the affinity groups

	%	Weight % estimate	Alternative N=476 %	Urban N=398 %	Clubbing N=430 %	Select N=192 %	P
Cannabis	68,5	72,2	88,2	73,6	50,2	50,0	0,0001
Hallucinogenic mushrooms	12,4	14,6	24,8	13,8	2,1	2,1	0,0001
Crack or free base	6,1	7,3	13,4	4,5	1,4	1,6	0,0001
Non-based cocaine	34,6	34,8	50,0	27,1	27,9	27,1	0,0001
Ecstasy	32,4	32,9	53,8	24,9	24,9	11,5	0,0001
Heroin	6,7	8,0	15,5	3,5	2,3	1,0	0,0001
Ketamine	2,3	2,5	6,5	0,8	0,2	0,0	0,0001
LSD	10,5	12,6	23,5	8,0	2,8	0,5	0,0001
Amphetamines	13,4	13,7	29,0	8,0	5,3	3,6	0,0001
Poppers	10,2	8,6	9,0	7,3	17,2	3,6	0,0001
Opium and/or poppy rachacha	4,3	5,4	8,6	4,3	0,9	1,0	0,0001
Benzodiazepines	1,8	1,3	2,3	1,0	2,1	1,6	NS
Cocaine and/or ecstasy	47,0	48,1	70,8	37,7	37,2	30,2	0,0001
All substances * excluding alcohol and cannabis	55,1	57,7	81,3	46,7	43,2	34,4	0,0001

*Taking hallucinogenic mushrooms and/or crack and/or cocaine and/or ecstasy and/or heroin and/or ketamine and/or LSD and/or amphetamines and/or poppers and/or opium and/or rachacha and/or benzodiazepines at least once

Table 5: Daily use of cannabis and use of cocaine, ecstasy and heroin more than once per week in the whole population and in the affinity groups

	%	Weight % estimate	Alternative N=476 %	Urban N=398 %	Clubbing N=430 %	Select N=192 %	P
daily cannabis use	41,4	44,2	67,0	41,7	21,2	22,4	0,0001
More than once per week:							
Cocaine	11,8	11,6	16,0	8,0	11,2	10,4	0,0030
Ecstasy	10,0	9,6	17,0	7,3	8,6	1,6	0,0001
Heroin	3,5	4,2	8,6	1,3	1,2	0,5	0,0001
Use of cocaine and/or ecstasy more than once per week	17,6	17,6	26,3	12,6	15,8	10,9	0,0001

ring the previous thirty days was the norm (96.0%) and 61.0% of users had been drunk. Half of these stated that they had been drunk between 2 and 4 times in the month.

Widespread multiple weekly use practices

Amongst the cannabis users in the previous month, the substance was used daily by six out of ten people, i.e. 41.4% of the whole sample and by more than two-thirds of the Alternative group.

More than 30% of recent cocaine users stated that they used the substance several times weekly and the same applied to ecstasy, 11.8% and 10% of the whole sample respectively. More people were multiple weekly users of cocaine and ecstasy in the Alternative group (16.0% and 17.0% respectively). Ecstasy and/or cocaine were used more than once per week by 17.6% of the entire sample (table 5).

Nasal and injection use

Four out of ten people had used drugs nasally during the previous month, more than half during the previous year and seven out of ten at some stage in their lives. Approximately one out of every two recent users stated that he had shared his/her straw over the last month, regardless of the group.

Although marginal, injecting practices were found: 0.5% of people had injected during the previous month, 1.0% during the previous year and 4.6% at some time in their lives. Here again, the group most involved was the Alternative affinity group.

Discussion

In addition to producing the first sample measurements on the prevalence of psychoactive substance use in a population of electronic music party enthusiasts, this study has provided two major advances. Firstly, it produces a structured representation of a population that was initially unclearly defined. The qualitative phase revealed the organisation of the scene studied (affinity groups, central and peripheral gatherings).

Secondly, this study was used to test a method designed to establish a representative sample, allowing the results of the survey to be extrapolated to the whole Electro party population. The structuring of the population in affinity groups and, above all, the identification of centrals bringing together an entire group, considerably simplifies data collection. In addition, the method has been found to be reproducible as it was used in several towns at two different periods. However, building an

ethnographically reasoned survey plan, i.e. one based on estimates obtained during interviews, can only provide orders of magnitude. Failure to observe a strict randomisation procedure implies non-measurable sample selection bias (risk of deforming the sample in terms of socio-demographic characteristics or types of use). As a result of the procedure, we hope, although we cannot guarantee, that this bias is reduced. The method also has practical application difficulties: obtaining sufficient, relevant and complete information, from different sources, during the ethnographic phase, obtaining research authorisations or “randomly” selecting people in open sites. Finally, the data obtained relate to a given month, which limits the overall assessment of the party population (in particular, the summer party dynamic is different from the dynamic seen here).

The study highlights practices of frequent cocaine and ecstasy use and daily use of cannabis in the four affinity groups considered. Whilst the prevalence estimates only corroborate results of previous studies and observations by people in the party scene, other aspects are more surprising and can be seen as warning signals.

Over the last decade, heroin use was marginal, particularly in the party environment, because of its perceived association with social decline and the ravages of the AIDS epidemic. One recent study had shown that its use, mostly nasally, started in environments where it was used primarily to reduce the negative effects of stimulant and hallucinogen consumption (6). The number of experimenters found in the study, however, reached a higher proportion than assumed at the outset.

Multiple weekly use of cocaine and ecstasy is another finding which raises concern. The frequencies of use observed seem to include use beyond a strictly “party context”.

Finally, this study highlights the risk-taking associated with nasal duct administration. The real existence of hepatitis C transmission via the nasal duct is still being debated (7). In the Electro party scene however, (according to our findings in the month before the survey), for every injector we found, we found 76 nasal users. Hepatitis C infection from sharing straws is probably only liable to occur if the people who are sharing are both suffering from microscopic bleeding. This situation is entirely plausible, particularly when multiple doses are taken in the same evening, such as required, for example, by the short-acting effects of cocaine or the use of cocaine crystals. References

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