



# Unpacking ‘the City’: An experience-based approach to the role of urban living in psychosis



Ola Söderström<sup>a,\*</sup>, Lilith Abrahamyan Empson<sup>b</sup>, Zoé Codeluppi<sup>a</sup>, Dag Söderström<sup>c</sup>, Philipp S. Baumann<sup>b</sup>, Philippe Conus<sup>b</sup>

<sup>a</sup> Institute of Geography, University of Neuchâtel, Espace Louis-Agassiz, 2000 Neuchâtel, Switzerland

<sup>b</sup> Treatment and Early Intervention in Psychosis Program (TIPP), Service of General Psychiatry, Department of Psychiatry, Lausanne University Hospital (CHUV), Clinique de Cery, 1008 Prilly, Switzerland

<sup>c</sup> Psychiatrist, Avenue de la Gare 16, 1800 Vevey, Switzerland

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## ABSTRACT

Primarily on the basis of epidemiological studies, recent research in psychiatry has established a robust link between urban living and psychosis. This paper argues first, that an experience-based approach, moving beyond epidemiology, is needed in order to enable more fine-grained understandings of the city/psychosis nexus. The second part of the paper presents preliminary fieldwork results based on video-elicitation sessions with first-episode patients with psychotic disorders. These results lead to the generation of a series of hypotheses for further research on the role of density, sensory overload and social interaction as factors in the onset of non-affective psychoses. The conclusion discusses the insights gained from viewing the city as an experiential milieu rather than as a set of substances. We argue that such insights enable, on the one hand, observation of the role of specific places and situations - and thus to unpack ‘the city’; and, on the other, to envisage the urban milieu as a nexus of possible sites of recovery.

## 1. Introduction

There is an agreement within psychiatry that the aetiology of psychotic disorders is multi-factorial, resulting from the interaction between constitutional (genetic, biological, psychological) factors of vulnerability and external stressors. Among the latter, “urbanicity” (in the terminology used in psychiatry: urban environments, and by extension, population density) has been identified since the first half of the 20th century as a potential risk factor. In their famous map of schizophrenia, two sociologists of the Chicago School, [Faris and Dunham \(1939\)](#), observed the striking prevalence of this illness in the city centre of Chicago.<sup>1</sup> Recent research in different contexts has shown that this relation is a persistent finding which cannot simply be explained by the fact that there are more people with risk factors in urban centres ([Kelly et al., 2010](#); [Vassos et al., 2012](#)). The nature of this link and the mechanisms involved are, however, still very unclear.

This paper argues that a shift in perspective is needed to better understand these mechanisms. Epidemiology has been very useful in

correlating discrete elements in urban neighbourhoods such as social deprivation and fragmentation ([Heinz et al., 2013](#); [Kirkbride et al., 2014](#)) with an increased risk of later developing psychosis. However, its methodology cannot account for how different aspects of urban living (from air quality and noise to social interaction and place-attachment) interact in the life experience of individuals. Drawing on recent geographical research on mental health, the paper therefore proposes an experience-based approach and discusses how this brings to the fore new understandings of the relations between urban living and psychotic disorder. This contribution is the result of interdisciplinary work between geographers and psychiatrists and aspires to speak to a mixed audience. To do that, we look at dimensions of urban stress examined in psychiatry and we re-visit them through the first results of our interdisciplinary study.

The argument unfolds in three steps. The paper first briefly outlines the ‘state of the art’ from the viewpoint of research in psychiatry in order to make a case for interdisciplinary work on the city/psychosis nexus. In the second part, we present preliminary results from video-

\* Corresponding author.

E-mail address: [ola.soderstrom@unine.ch](mailto:ola.soderstrom@unine.ch) (O. Söderström).

<sup>1</sup> For a historical discussion of the relation between the urban and mental health - “one of the oldest and most consistent findings in epidemiological psychiatry” as they point out - see [Fitzgerald et al. \(2016\)](#).

based interviews with a group of ten persons with mental health problems,<sup>2</sup> based on video-recorded walks in the city of Lausanne, Switzerland. These sessions and their results are seen as hypotheses-generating rather than hypotheses-testing. We therefore suggest that further research based on these hypotheses could revisit and nuance what we know about how urban living is involved in the onset of psychosis. Our findings indicate in particular, how the effects of what are generally conceived of as factors of stress, such as density or sensory stimulations, depend on the specific places and situations in which they are experienced. In the third and final section, we summarise these results and emphasise the insights gained from viewing the city as an experiential milieu. In line with recent work on cities as composed of atmospheres (Adey et al., 2013; Duff, 2016) and assemblages (Fariás and Bender, 2010; McFarlane, 2011), our core-argument is that such an approach allows us to ‘unpack the city’: to see it as a heterogeneous, non-deterministic and enabling milieu, rather than as an undifferentiated factor of psychic stress.

## 2. State of the art

In the context of scientific research in domains such as genetics, the potential role of urbanicity was largely neglected in the 40 years following Faris and Dunham's (1939) pioneering study. Nevertheless, the association between urbanicity and higher incidences of psychosis has been replicated in a number of studies of different designs (Allardyce et al., 2001; Kirkbride et al., 2007; Lewis et al., 1992; Marcelis et al., 1998; Mortensen and Pedersen, 2001; Sundquist et al., 2004; van Os, 2004; Zammit et al., 2010) and has remained significant after adjustment for individual demographic and socioeconomic characteristics. Furthermore, it has been shown that the risk of developing schizophrenia is correlated with the number of years spent in an urban milieu during the first 15 years of upbringing (Mortensen and Pedersen, 2001), making the explanation of the phenomenon due solely to the presence of higher rates of populations at risk in urban centres unlikely. Various review papers and meta-analyses have established a strong correlation between urbanicity and schizophrenia (Kelly et al., 2010; Krabbendam and van Os, 2005; March et al., 2008; Vassos et al., 2012) ruling out doubts of methodological bias. Accumulated data has indicated that this correlation is not specific to schizophrenia, but may be related to the more global phenomenon of non-affective psychoses (Krabbendam and van Os, 2005). However, it seems that the link between urban living and increased risk of developing a psychiatric disorder exists specifically for psychoses and not for other diagnoses, except perhaps for severe depression, but in this case, with a much lower incidence (van Os, 2004). As such, while anyone may experience stress when exposed to an urban milieu, it seems to have a specific impact in the development of psychosis. In addition, in the last decade the importance of gene/environment interactions has been brought to the fore (van Os, 2004). For instance, the experience of ‘social defeat’ has been shown to have effects on genes involved in brain development processes associated notably with schizophrenia (Landecker and Panofsky, 2013, 342–343). Various hypotheses have been proposed to explain pathways linking urban living and mental health, but the exact mechanisms remain unknown despite the identification of a wide range of potential contributing factors. The links may operate at an individual scale (obstetric complications, diet, exposure to infections, toxins or pets, household crowding, traumatic migration, etc.), or at area levels (social fragmentation and deprivation, social capital etc.), as well as interacting between each other, creating considerable cross-level overlaps and

increasing the risk of the development of psychosis. However, no single factor can account solely for higher incidences of psychosis in urban environments. It is therefore important not to study those elements in isolation, but rather to try to grasp how they interact and lead to the development of psychotic symptoms.

For example, the frequently-mentioned concept of ‘urban stress’ is unclear (Abbott, 2012), referring to a wide spectrum of potential factors, ranging from exposure to noise and pollution to more complex concepts such as social interaction. However, we do not know how these factors combine and are seen from an emic viewpoint. It is therefore important to gain a better understanding of what might underlie ‘urban stress’ in the experience of patients. In this respect, it seems that the epidemiological approach has reached its limits in terms of being informative about potential mechanisms, and that close study of person-environment interactions using innovative research designs is required in order to clarify the nature of the urbanicity-psychosis connection. Beyond epidemiological approaches and the study of neuro-biological factors, it is therefore important to examine the issue from patients’ perspectives (Lysaker and Lysaker, 2008), by exploring the ways in which they encounter the urban milieu and thereby how differing factors of stress are combined.

In our study, we have drawn on recent research on the geography of mental health, which has been a topic of research in human geography since the 1970s (Philo and Wolch, 2001). Influenced by gender, postcolonial and psychoanalysis-inspired studies, geographical research in the 1980s witnessed the development of a focus on the lived experience of persons with mental health problems. Compared to studies in the 1970s focusing on the location of patients or care services, developments in the 1980s were primarily aimed at grasping how patients thematise and stage their identities, their social integration and/or exclusion. More generally, a rich body of work analyses how persons with mental health problems experience urban space (Philo and Wolch, 2001). It focuses on issues of identity, exclusion and social norms (e.g. Butler and Bowly, 1997; Butler and Parr, 1999; Chouinard et al., 2010; Giggs, 1988; Hansen and Philo, 2007; Knowles, 2000; Parr, 1997, 2000), senses of home and belonging (Fields, 2011; Tucker and Smith, 2014); or relations to community health centres (Smith and Tucker, 2015; Stroud et al., 2015). It is based on different qualitative methods – semi-structured or biographic interviews, observation, focus groups, go-alongs, videos – giving in-depth access to patients’ everyday experience. In this literature, there is a recent interest in narrative, autobiographical and phenomenological approaches to this experience (Atkinson, 2009; Chouinard, 2012; Davidson and Smith, 2009). If Foucault was a central reference in former geographical work on mental health (for instance: Philo, 1989), we witness the emergence in this recent work of a more-than-Foucauldian perspective in which affective atmospheres and fluid and relational conceptions of urban space are brought to the fore (Duff, 2016; Tucker, 2010). The focus is on how places are made in the experience of patients – rather than externally given – and how health or illness are the result of the assemblage of heterogeneous elements (Duff, 2012, 2014). This work is connected to recent reconceptualisations of the city – inspired by actor-network theory (Fariás and Bender, 2010) and the work Gilles Deleuze (McFarlane, 2011) – as an assemblage: i.e. an unstable composition of heterogeneous entities rather than an organic totality.

Drawing on this body of work in order to better clarify the city/psychosis nexus, our research aims to provide an answer to the following research question: How, when and where does a sense of stress or protection emerge in psychotic patients’ experience of urban milieus? The general hypothesis on which it is based is that a focus on patients’ trajectories in and experiences of urban space, both before and after a first episode of psychosis, will provide important elements for a better understanding of how urban milieus influence the development of the illness. In line with the work cited above, beyond a phenomenological account of subjectivity and intentionality, we see

<sup>2</sup> ‘Persons with mental health problems’, or ‘persons living with a diagnosis’ are terms that for good reasons have been proposed as alternatives to the word ‘patients’ in social science research on mental health. However, as the persons we worked with were contacted in the context of a medical treatment programme, we will henceforth use the term ‘patient’.

urban experience as also including broader encounters with the social, material or other non-human entities and forces that constitute cities. More broadly, this paper responds to a recent call for interdisciplinary work on the city/psychosis nexus stemming both from psychiatry (Lederbogen et al., 2011) and from the social sciences (Callard and Fitzgerald, 2015, Chapter 3 in particular). In our conclusion, we briefly discuss the insights gained by our interdisciplinary take on this theme.

### 3. Methodology

#### 3.1. Patients

In order to be in a better position to investigate the relations between urban milieus and the emergence of psychosis, our ongoing research focuses on young patients with recent first experiences of psychotic disorders. Patients who had their first episode a long time ago or who are chronically ill are more likely to reconstruct the circumstances of the emergence of their health problems in the light of their subsequent life experience, thus increasing the risk of recollection bias. The patients with whom we work are all involved in the Treatment and Early Intervention in Psychosis Programme (TIPP) launched in 2004 by the Department of Psychiatry at the University Hospital in Lausanne. Approximately 50 new patients have entered this three year treatment every year since then. The urban region of Lausanne, which is the ‘catchment area’ for the patients in the programme, is Switzerland’s fifth largest, with a population of 335,000 inhabitants in 2014. It is a medium-sized city with an urban intensity (housing density and social diversity) which is clearly lower than larger metropolitan areas. It is therefore an interesting case, because it is closer in terms of size and density to an average urban situation for a city like this in the Global North.

The above-mentioned Programme is organized according to a case-management model in which nurses and social workers, while working in close collaboration with psychiatrists, “are in contact with patients as early as possible, ideally within 48 h, be it in a hospital, at the emergency room, at a general practitioner’s practice or at a patient’s home” (Baumann et al., 2013, 324). Patients aged between 18 and 35 were included in the Programme following their first psychotic outbreak (but excluding those for whom psychosis was induced by illicit substances and those with an IQ below 70): the majority of participants had never been exposed to antipsychotic medication before entering the Programme. These patients are routinely assessed every six months over a treatment period of 36 months. Only patients with diagnoses of schizophrenia or non-affective psychoses participated in the present study after providing written consent to a research protocol that was approved by the local Ethics Committee.

#### 3.2. Methods

Four different methods are being used in this study lasting three years: video-recorded go-alongs as well as video-recorded film-elicitation sessions with ten patients of the Programme (see details below); semi-structured and narrative interviews with 10 other patients; a focus group with the psychologists and case managers; and a survey sent to the 500 patients who are or have been part of the TIPP study since 2004.

The results reported below are primarily based on the video-elicitation sessions. In this paper, we do not analyse the videos as such: this will be done in other publications. Visual methodologies such as videos as well as go-alongs<sup>3</sup> provide important means of grasping bodily, sensory, emotional and spatial dimensions of social life

<sup>3</sup> Go-alongs or walk-alongs - where situations, spaces or places are experienced and discussed with respondents while walking together -, have also been called *parcours commentés* (commented walks) in French speaking urban studies (Grosjean and Thibaud, 2001).

(Doughty, 2013; Pink, 2007). These dimensions are key to envisaging the city as an affective atmosphere and to accessing experience of the city beyond verbal representation. In the context of this paper which focuses on video-elicitation, the role of the visual introduces also a significant distinction in relation to standard interviews. Rather than an abstract conversation about ‘the city’ or some of its parts, it enables a discussion based on an embodied, mobile experience of space and place. To allow this to happen, patients were shown the videos of their walks and asked to freely comment on them. A semi-structured interview followed immediately in order to discuss aspects that had not been spontaneously addressed during the video elicitation. It involved questions regarding routine urban practices, stress, comfort, and social interaction in urban milieus as experienced during the go-along; while more general questions concerning patients’ successive places of residence were asked in the concluding part of the interviews. Questions were open and related to ordinary urban situations, avoiding technical terms present in academic studies, such as ‘stress’ or ‘social interaction’. We then selected from what emerged from the interviews elements related to the literature in psychiatry on urban stress (such as density, sensory overload, see below) to investigate how a first person perspective might produce a more nuanced understanding. We did not compare results with those of a control group, as literature in psychiatry shows that persons with a diagnosis of psychosis have a higher sensitivity to - and difficulties with - situations of social and sensorial complexity such as encountered in dense urban areas. It has been suggested that in psychosis, excess of dopamine (a neurotransmitter) is responsible for a diminished capacity to ‘filter’ sensorial and social stimulations - what some authors call a ‘salience dysregulation syndrome’ (Kapur, 2003; van Os, 2009). Therefore, what we want to grasp is not whether patients’ urban experience is different from those not suffering from psychosis, but how they themselves describe it, to get a better sense of what is problematic or less so in their everyday urban lives.

The interviews took place at the outpatient clinic, one to four weeks after the walks and involved a psychiatrist and a geographer who led the interviews with the patients. These video-elicitation sessions were themselves video-recorded and analyzed within an interdisciplinary workshop (that we called the ‘Interpretation Lab’) that included the psychiatrists and geographers on the team. Interviews were transcribed and thematically coded. The go-alongs on which the video-elicitation sessions were based took place in the city of Lausanne (see Fig. 1) and the itineraries were chosen by the patients who were accompanied by a friend, a member of the family or, if nobody else was available, by a member of the research team. The ten video-recorded go-alongs lasted between 40 and 120 min each.

### 4. Results

For reasons of space, the findings presented here relate exclusively to the theme of ‘stress’ as discussed during the video-elicitation sessions. They are based on a small sample (10 persons: seven men, three women) and have heuristic rather than statistical value. In other words, they are used to identify what difference an experience-based approach makes to the understanding of the city/psychosis nexus and to generate hypotheses for future research. Further steps, such as surveys could provide statistical validity, but of course, would provide ‘thinner’ understandings of the urban experience of young patients with psychotic disorders. Before discussing findings related to issues of stress, it is necessary to make a few observations concerning patients’ differing overall practices of ‘the city’, defined here as the core of the Lausanne urban region.<sup>4</sup>

<sup>4</sup> What ‘the city’ referred to was not defined by the interviewees but by the interviewees who all related it to the city centre.



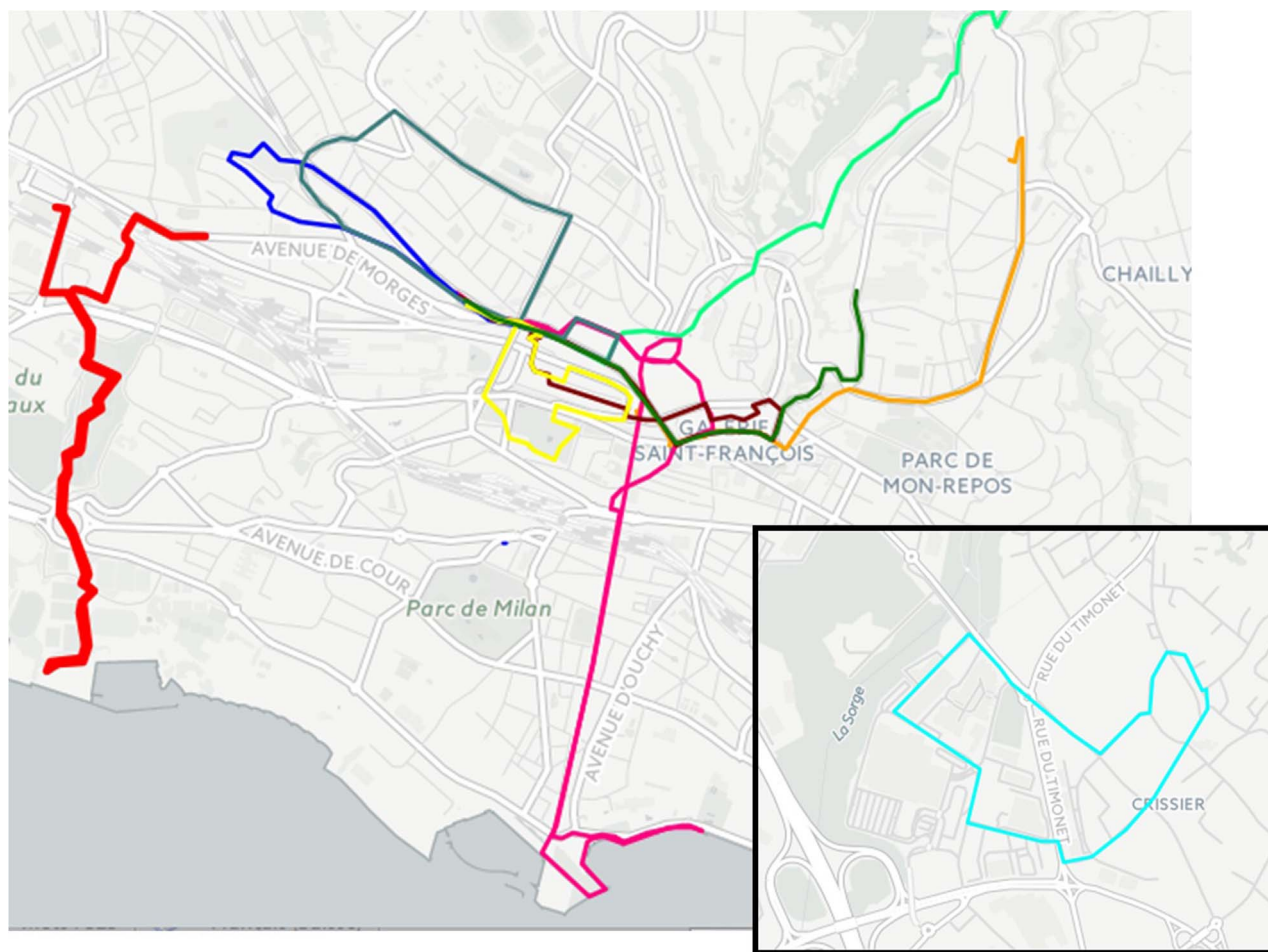


Fig. 1. Map of the ten walks in the city of Lausanne.

#### 4.1. Using/avoiding the city

The persons we interviewed had all had their first psychotic episode between a few months before the go-along and a maximum of three years earlier. The fact that the interviews took place when they were recovering from this first episode - and not before the first episode or during a period of crisis - has an impact on our results. Therefore, to account for changes through time, we systematically asked at the end of the interviews if the evoked factors of stress had appeared after the onset of their illness or had changed in intensity as a consequence of their first episode. A majority said that intensity had increased, and the others that they felt they had a higher sensitivity than average even before the onset.

Within the group of patients, there are three forms of attitudes and practices regarding the city in general: those who use the city frequently; those who use it but only at certain hours when it is not too busy (avoiding afternoons and Saturdays); and those who generally avoid using it and do so only when they have to. It is interesting to note that these routines are related to three aspects of patients' discourses and biographies: their attitudes towards cities; the difficulties they associate with urban milieus; and the process through which the illness developed. First - and this is not surprising - those who use the city on a regular basis are also those who do not describe it as particularly stressful or problematic, whereas those who avoid it offer opposite descriptions. Second, and more interestingly, those who try to avoid the city are those who report difficulties in coping with the complex and intense sensory stimulations of urban milieus. Thirdly, those who do go to the city centre report difficulties of another nature: being in the city is all right but may become problematic on occasions because of the

people encountered, issues of violence, availability of drugs and more generally, difficulties experienced related to work and housing.

On the basis of these observations, we hypothesized that the differences could be related to distinct forms of the illness. Schizophrenia is a syndrome, or set of symptoms, resulting from more than one pathological mechanism, and the various attitudes towards the city may reflect these differences. Those who use the city and report social rather than cognitive/sensory difficulties may have an illness profile where traumatic life experiences predominate over biological/genetic vulnerability. Those who avoid it and describe cognitive and sensory stress in their experience of urban milieus, on the other hand, may have an illness profile in which biological/genetic vulnerability factors predominate over those related to stress exposure. This hypothesis is in line with the vulnerability-stress concept of psychosis proposed by Zubin and Spring (1977) which suggests that some patients may have an illness that is driven mainly by neuro-biological factors influencing brain function and cognitive processes from an early age, while in other patients exposure to traumatic events plays a more predominant role. However, this hypothesis needs to be confirmed in a larger sample of patients in the next phase of our study. If confirmed, this hypothesis would help us to unpack the bundle of the city/psychosis nexus to envisage how certain aspects of urban life have differing effects on patients with different biological conditions and life experiences. The other aspects that the video-elicitation led us to unpack or rather, as we will see, 'revisit', relate to factors of stress.

#### 4.2. Reported sources of stress

Salient sources of stress in the urban experiences described in our

participants' narratives fall into the four following categories that emerged from the coding of the video-elicitation sessions and relate to studies on urbanicity and psychosis in psychiatry: density; sensory overload; obstacles to mobility; role-management.

**Density** in neighbourhoods and households has been identified by several studies as a factor of stress for persons developing psychosis (Vassos et al., 2012) and it is reported as an issue by many of our respondents. However, an experience-based approach allows for a better and more nuanced qualification of the 'density-factor'. Density can be measured in different ways, but principally either as a demographic phenomenon or as a phenomenon related to the built environment. Demographic density in turn varies depending on the hours of the day: a city centre can be very densely filled with people during working hours but can be almost deserted at night. What is important, however, is how patients describe their experience of density. In our group of respondents, it was primarily described as an issue of human density rather than the density of the built environment. In their accounts, stress is related to being in a crowd, being surrounded by others and not having the possibility of escape: "I don't like to go to the city when there's lots of people" (Alex); "I have problems with the fact of having people around me [...] it's the quantity really" (Guy).

The density of the built environment is more rarely invoked and difficult to distinguish from the human density:

*Interviewer: Would you stop in a place like this?*

*Benoît: No I wouldn't [he points to the buildings shown around him in the video of his walk] Hum... too surrounded by buildings to the right and to the left [...] I don't like to be in the middle of all this.*

Interestingly, the experience of density is not only described as stressful but for one of our participants, is also experienced as protective:

*I like to immerse myself like an ant in the crowd [...] I like to hear the noise of the crowd, the musicians playing, hum... in fact I like feeling alone but surrounded. I feel I belong to society, but without being too exposed (Laure).*

This experience in which the crowd functions as a comfortable environment is contrasted by the same person with the stressful experience of being with close friends or with the family where, she says, a constant and tiring self-monitoring and self-critique goes on in her mind. It is likely that the protective quality of crowds would dissipate for this person if she was suddenly to meet a close acquaintance in an enclosed space, but it works as long as this does not happen. This is reported by only one person in such a clear way, but it invites us to envisage density as situational in future studies. The experience and effect of density is probably not homogeneous across all persons in the frame of a psychotic disorder. That is, it is not inherently injurious for all persons with a vulnerability, as previous research might indicate, but can be so in specific circumstances and for persons with a specific illness profile. These results indicate the need for more fine-grained studies of the role of density as a situational composition and an affective atmosphere (Anderson, 2009).

**Sensory overload (or flooding)** is a term in psychiatry describing the feeling a patient may have of being overwhelmed by an excessive number of stimuli occurring at the same time, which exceeds her/his capacity to absorb and process signals (Bunney et al., 1999; Micoulaud-Franchi et al., 2012; Mishara and Fusar-Poli, 2013). Being hypersensitive and therefore always mentally very active in an urban milieu is a recurring motive in our video-elicitations. Alex, for instance, puts it this way:

*I hear everything. In the city you need to be vigilant about everything: it's tiring. I have very clear perceptions of my environment. I am a super-analyst. I analyse whatever small thing close to me is not in its place.*

Three main aspects regarding the sensory experience of the city should be highlighted here. They concern the type of sense involved, their combinations with each other and the location of this experience. First, if smells and visual elements appear in certain narratives, noise and physical contact are clearly mentioned more often. Moreover, the lexicon used describes how noise in the city in particular, can be experienced as an aggression: noise is said to be 'perforating', 'breaking you down', especially when unexpected and strident.

Second, there are two types of accounts among the respondents: those concerning specific stimulations, and those regarding difficulties arising from the combination of stimuli soliciting different senses in a close sequence: hearing, seeing, feeling. For instance, Benoît, like some other patients, can bear a sound-filled (not necessarily noisy) milieu for a couple of hours, but not more: after this, he feels overwhelmed or, as he puts it, 'replete'. In contrast, for other respondents stress is rather related to the difficult management of the combination of various sensory stimuli in the same environment.

Third, patients' accounts enable us to understand how certain places, such as shopping malls and public transport, expose them to a sequence and accumulation of stressful sensory events: rubbing shoulders, smells, noise, light. The main significance of the type of in situ perspective we develop in our study is that it allows us to recognize and locate these phenomena in the everyday spaces of persons with mental health problems. In that respect, problematic places (shopping malls, public transport) and spaces (routes, urban trajectories) can be better identified. The mobile methodology we use also shows that if these places are likely to be more problematic than others, they are also assembled in different ways in patients' urban experience.

**Obstacles to pedestrian mobility** are mentioned as a source of stress by half of the patients. Waiting at traffic lights, or on public transport, or being slowed down by a crowd are described as difficult moments in their everyday urban lives. It creates feelings of being 'nailed there' with 'nothing to do' or 'nothing to look at'. The importance of these moments of unease becomes clearer when put in relation with respondents' descriptions of their coping strategies, and in particular, the importance of walking fast, keeping a rhythm and keeping to the minutiae of planned journeys. Emilie, for instance, does not like to walk around with someone else:

*You have to watch where the other is. It's more complicated than being on my own. It might not seem logic, but when I'm alone I rush along 'tak-tak-tak' and that's it (laughing).*

Set in this context, the role of obstacles to mobility – which of course, may be irritating for everyone – gains a more specific role for persons with psychotic troubles. More generally, it shows that these different aspects of patients' urban experience cannot be separated: sources of stress and ways of creating a comfortable, or at least manageable, situation are interdependent.

**Role-management** refers to the challenges of urban milieu, not in terms of physical or sensory characteristics, but as sites where one is exposed to the interaction with known or unknown others. Non-affective psychotic disorders are characterized by anxieties concerning ordinary social relations and the fear of not being up to the task (Freeman et al., 2014). These anxieties are reinforced by having to cope with the decision of whether or not to disclose one's health condition. Laure, for instance, says: "I don't like when I have to tell others how I am" and she avoids taking the westbound metro to the University for fear of encountering students who might ask her what she's up to. For Florian, discussing his condition with others is associated with having to face interrogations regarding what he perceives as a loss of intellectual capacities:

*It's more difficult for me now to have a conversation and it's true that I don't go to places where I know there's a debate [...] the University for instance.*

An experience-based approach can thus lead us to better locate

places that are particularly problematic from a relational viewpoint. On the one hand, studies based on large samples might be able to generalize results concerning these places: for instance, that the city is a place of relational challenge as such, and places that are particularly challenging (the University, a café, etc.) are likely to vary according to patients' socio-economic and educational background. On the other hand, in a therapeutic context and one-to-one dialogue with a patient, identifying these places could provide helpful information for discussing where to go, when and how often. Such advice could assist persons in a prodromic phase or after a first episode in avoiding repeated negative experiences of perceived social defeat.

The different sources of stress discussed in this section are related to the various dimensions of the city seen from a first person perspective (Lysaker and Lysaker, 2008). As described by our respondents, the city is a milieu encountered as a demography, a morphology, a sensory 'climate', and a world of social interactions. Most of these dimensions have been absent from previous medical research which is generally based on existing statistical data, or data collected through interviews before and after patients' 'exposure' to urban space (Ellett et al., 2008). But even interviews do not capture the actual experience of the city that go-alongs enable us to explore.

In the next concluding section, we discuss this methodological point and its implications for future research on the environmental factors of psychosis in more detail.

## 5. Discussion and conclusion: from the city as substance to the city as experience

The results of this analysis point to the necessity of looking more closely at how urban living might have quite different effects for psychotic patients with differing illness profiles. The impact of urban situations on the onset of psychotic troubles might be stronger for patients for whom biological factors are predominant. These differential effects also indicate the importance of developing more fine-grained approaches to the study of urban density and the spatial circumstances of sensory overload and relational stress. An experience-based approach shows how urban factors of stress such as density are situational – i.e. dependent on socio-spatial context.

Beyond these preliminary results, this paper aims more broadly to identify how an interdisciplinary experience-based approach changes the perspective on the city/psychosis nexus. Implicit in the existing work on psychosis and 'urbanicity' in medical research is the idea that 'the city' is a set of material things and social characteristics to which persons are exposed. It follows that the city is seen as a fairly static substance that has similar effects on persons with potential or already present mental health problems. Drawing on work on cities as atmospheres and assemblages, the approach developed in this paper looks at the city differently from many medical approaches and provides a different understanding of the causal links between urban milieus and psychosis. Our conclusion discusses these two aspects in turn.

First, rather than a fixed substance, the city is approached as a flow of experiences in which patients encounter elements that are assembled in various ways depending on how they see and practice 'the urban'. In other words, we look at place-making rather than places (Duff, 2012). For instance, the fact that a person has an apartment in an urban area does not tell us whether she or he spends time in the city, or tends to avoid it, or deploys very selective forms of urban practice. Therefore, in research on the city/psychosis nexus it is important to distinguish between having an urban postal address and living an urban way of life. More generally, an experience-based approach moves us "beyond sterile epidemiological abstractions like 'SES'<sup>5</sup>, 'disadvantage' and 'disintegration'" (Fitzgerald et al., 2016, 153) to see the diversity of the urban as encountered in a persons' ordinary courses of

action. Whereas the urbanicity literature focuses on relations between urban or neighborhood features and the presence/absence of persons with psychotic disorders, the use of video-elicitation based on go-alongs enables us to see the urban as a mobile phenomenon in which favorable or unfavorable encounters with other people or aspects of urban morphology occur. The fact that mobility is more or less fluid, as our results indicate, also has implications for urban stress, showing that routes, pathways, transport modes should be more central to research on the city/psychosis nexus. Analyses of patients' routine trajectories can help us to better grasp, for instance, how sensory overload is produced by the encounter of different stimuli in an urban trajectory. An engagement with the work of mobility scholars on the politics of mobility (Cresswell, 2010) and on other mobile methods (Büscher et al., 2010) than the ones we use in this research could in the future enrich the type of interdisciplinary conversations that our paper proposes.

Second, the fact that mobility and urban spaces matter in how sources of urban stress are experienced does not preclude the role of specific places. Complex road intersections, places filled with people, narrow and enclosed spaces, places corresponding to a likelihood of relational challenges are all reported by our respondents as possible stressful places in cities. However, the relational approach we have used shows that causal links between these places and experienced stress are neither simple nor deterministic. Density in particular, may have different values for persons with different illness profiles and ways of engaging with density. If, as one of our respondents told us, density is associated with anonymity and protection, it becomes a very different experience from an association with countless potentially stressful encounters with acquaintances. As a consequence, we should beware of seeing density as a direct determinant of psychosis and develop studies that provide a more fine-grained understanding of how different forms of density are differently experienced. More generally, we should beware of 'ontological flattening' whereby "different things in the world are made equivalent by recasting them as different forms of exposure" (Landecker and Panofsky, 2013, 341). City users are not *exposed* to 'the city' or 'density' as one is exposed to the sun, for instance, but *encounter* it and compose it (Anderson et al., 2012) in quite different ways depending on the time of the day, the person's level of anxiety, whether they are alone or not, and so on. In that sense, recent work in urban studies on how cities can be envisaged as multiple assembled singularities (Blok and Farias, 2016; McFarlane, 2011) is fruitful to advance our understanding of the city/psychosis nexus.

Finally, in order to be fully understood, the experience of urban milieus should be situated within a broader first-person experience of psychosis. This experience can be defined in very general terms as the progressive loss of affective, social and (generally also) economic resources (Knowles, 2000).

In this context, the urban question becomes: How does urban experience contribute to the loss of these resources? But also - and this is at least as important: How can urban areas (now the home of most people on our planet) be reconstructed as sources of protection and recovery? (Bister et al., 2016; Duff, 2014). The historical era during which patients were exiled to the 'healing' countryside is certainly not to be welcomed again (Parr, 2007; Parr et al., 2004). Cities may be factors in the causalities of psychoses, but a better understanding of 'cities as experience' can uncover how they may also provide conditions that could avert the development of a first episode of psychosis in people at risk and help those who have developed the illness to recover.

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<sup>5</sup> Socio-Economic Status.



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