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Precarious encounters with urban life: the city/psychosis nexus beyond epidemiology and social constructivism

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Abstract

The article analyses the specific sense of precarity experienced in cities by persons living with a diagnosis of schizophrenia. It aims to bring a social science perspective on precarity as embodied affect into conversation with perspectives on psychosis in the life sciences. To do so the article focuses on two moments in an interdisciplinary research process involving psychiatrists, linguists and geographers. The first is an epistemic moment describing the co-design of a research laboratory across the social and the life sciences to study participants' precarious encounters with urban situations. The second is an ontological moment discussing the results of co-experimentation across disciplines in the research team. It shows how collaboration within the team led to a redefinition of our respective analytical categories and discusses empirical findings concerning factors of urban stress and protection for persons living with a diagnosis of schizophrenia. The conclusion situates the socio-natural analysis of urban precarity developed in the paper within broader contemporary discussions on the study of bio-social entanglements. Arguing for epistemological plurality and ontological contamination, the paper is both a methodological contribution to contemporary debates in geographies of health and a contribution to studies of urban precarity.

Introduction

David and I were walking in the streets of Lausanne, Switzerland, one summer day in 2016. We spent one and a half hours together moving through the city centre, taking the subway down to the lake. We walked along the lakeshore, made jokes about the security around the hotel where John Kerry and Sergueï Lavrov were discussing the situation in Syria and took the subway back again to the centre. It was the first time we had met and a warm and lively conversation had immediately started. While we walked, we created a bubble around us, ignoring what went on outside it. David was searching for closeness with me and I could feel that he felt comfortable leaving me with the job of finding our way in the busy streets and a place to stand in the subway.

David was one of the participants in a study we conducted in 2016 on how persons living with a diagnosis of schizophrenia experience the city (Söderström et al., 2016).¹ He took part in the video-recorded go-alongs which were one of our research methods. During our walk, I was carrying a GoPro camera and a microphone, while two additional cameras (one diagonally in front and one behind) operated by two other members of the research team were filming us. Despite this heavy equipment, David rapidly forgot we were not alone to the point that he started discussing in detail his pot-smoking habits before he realised he perhaps should not be talking about that with the mikes on. Two weeks after our walk, David commented on the walk during a video-elicitation session. In the following weeks the geographers, psychiatrists and ethnomethodologists in our team added their analyses of the video to David's. It led us to understand David's search for closeness, his efforts to create a conversational bubble and the fact that he entrusted me with way-finding as ways of dealing with a sense of precarity when being in the streets (Söderström et al., 2017). Depending on the persons and the intensity of their psychological distress, for people living with diagnoses of schizophrenia, such efforts are partly tacit, partly self-conscious ways of struggling along (Desjarlais, 1994) with the difficulties of being in the world, and particularly in the urban world (van Os, 2004).

This paper discusses both this specific sense of embodied precarity and the methodological *dispositif* put in place to grasp it. It is far from being the first to do so (Desjarlais, 1997; Estroff, 1985; Knowles, 2000; Parr, 2008), and as the first part of this paper briefly shows, there is a rich literature on the geographies, but also anthropologies, sociologies and psychologies of mental health that has documented and reflected upon this form of urban experience. But, while studies in the social sciences rarely aim to contribute to an understanding of the aetiology of psychosis, this paper stems from an interdisciplinary research project which

¹ 'David' is a pseudonym like all other participant names in this paper.

investigates the role of urban living in the development of schizophrenia². Recent research in psychiatry has developed robust findings concerning such a role, which has not been observed for other psychiatric diagnoses (Vassos et al., 2012). However, there is still little understanding of the causal mechanisms that might underlie observed correlations. A recent influential ‘sensitization’ hypothesis concerning the role of the environment in psychosis suggests that urban living conditions experienced earlier in life can contribute to an individual’s increasing vulnerability to psychotic symptoms, when they eventually pass a threshold that marks the onset of the illness (Collip et al., 2008). Our research critically draws on this medical literature and uses a novel methodology to investigate specific forms of precarity in ordinary urban life related to schizophrenia. The more general aim of this paper is to bring a social science perspective on embodied precarity into conversation with perspectives on psychosis in the life sciences. The paper focuses on two moments of the interdisciplinary work by our team involved in this research. The first is the epistemic moment of the co-design of a laboratory across the social and the life sciences to study participants’ precarious encounters with urban situations. I argue here that it can be more fruitful in such interdisciplinary endeavours to ‘stay with the trouble’ of epistemological difference and use its heuristic potential than to try to resolve it from the start or by looking for the integration of perspectives into a unique framework. The second is the ontological moment during co-experimentation when understandings of what constitutes ‘precarity’ and ‘the city’ in the different disciplines ‘contaminated’ each other. This second moment highlights how interdisciplinary ‘co-laboration’ (Niewöhner, 2015) can be transformative for the disciplinary perspectives involved.

In a previous publication (Söderström et al., 2016) the members of the team focused on situations of urban stress as experienced by persons involved in a programme for ‘first episode’ patients, i.e. persons who, a few months earlier, had experienced the first manifestation of what had been diagnosed as a disorder within the spectrum of schizophrenia. In another publication, we studied the tactics developed by participants for handling the city in the everyday that are related to these situations of stress (Söderström et al., 2017). These papers draw on walk-alongs with twenty participants, of which ten were video-recorded, and on interviews made after the walks. The findings have since been analysed in conjunction with

² There is a long-standing debate on the validity of diagnostic categories both within psychiatry (van Os, 2009) and in related disciplines. The recent Power Threat Meaning Framework (Johnstone et al., 2018) rejects these categories altogether in favour of the non-diagnostic approach to distress they propose. The term schizophrenia is to be understood here as the category framing work in the clinical context where the research takes place and the majority of studies in psychiatry on urban living and psychosis.

two further sources of information: by the results of a survey conducted with 117 persons involved in the same programme (Conus et al., Submitted); and by a fine-grained ethnomethodological analysis of one video-recorded walk-along. These materials are used in this paper to reflect on how our findings and interdisciplinary methodology speak to the question of precarity.

The paper is organised in three parts. The first discusses mental health problems as precarity and situates the paper in relation to work dealing with urban living and mental health in the social sciences and in psychiatry. The second describes our interdisciplinary co-experimentation with participants in the city of Lausanne, Switzerland. The third and concluding part shows how this research speaks to broader issues in geographies of health and (new) alliances between the social and the life sciences.

Mental health problems as precarity

Broadly defined, precarity is a term which ‘conjures life worlds that are inflected with uncertainty and instability’ (Waite, 2009). The concept has been used primarily to describe unstable conditions of work considered either as a prevalent norm under capitalist conditions of production and reproduction or as particularly characteristic of post-Fordist and neo-liberal capitalism. In the former case, the welfare state is seen as a transitory period of exception (Neilson and Rossiter, 2008). For a minority of authors, precarity is understood beyond the sphere of work as a general human condition that ‘crosscuts spheres of life, infuses life’ (Ettlinger, 2007). In this wider understanding, precarity ‘inhabits everything from the global political economy to the vicissitudes of employment, health, social relations, self perception’ (Ibid., p. 324). As is the case with many other concepts, there is thus a definitional tension between a narrow and a broader understanding of the term ‘precarity’. Rather than seeing it as a problem, I consider the tension to be useful because, when thinking about and studying uncertain and unstable lives, it forces us to reflect on the ways in which they are related to specific political economies. This is illustrated, for instance, by work suggesting the concept of ‘hyper-precarity’ to define the radical instability of the lives of migrant workers (Lewis et al., 2015). In other words, the history of the concept leads its users to productively embed their analyses in an institutional context.³

This is what differentiates precarity from vulnerability. The concept of vulnerability leads to a focus on the frailty of people and groups rather than on the conditions through which their

³ In a slightly different way, Butler (2006) contrasts precariousness as a general human condition related to the frailty of life with precarity as the specific frailties of certain social groups, because of their lack of income and political rights.

frailty is produced (von Benzon and van Blerk, 2017). Eggleton et al. (2017) for instance, write that 'Given that 'vulnerability' is dependent on power dynamics, we prefer to see participants as structurally disempowered rather than marginalised or 'vulnerable' per se'. Therefore, in discussions about vulnerability, terms like 'structural disempowerment' or 'relational vulnerability' have to be mobilised to analytically make space for aspects that the concept of precarity – because of its relations in social science studies to political economies – more aptly captures. Below, we will see how the vulnerability / precarity alternative also intervenes in interdisciplinary discussions about mental health.

People living with a diagnosis of schizophrenia – 21 million people worldwide according to the World Health Organisation⁴(2018) – lead precarious lives for different reasons, but first and foremost because of their health conditions. Episodes of crisis create serious impairment and become chronic for a third of the persons living with such a diagnosis. Hallucinations and delusions that can be present even under medication, the fear of new severe crises, efforts to avoid stress factors, are part of everyday life.⁵ Other dimensions of precarity are related to these health issues: low income, unemployment, poor housing conditions or homelessness are often consequences (and also important causes) of the onset of schizophrenia (Boydell et al., 2013; Dear and Wolch, 1987; Knowles, 2000). The same is true in relation to social isolation and loss of social capital (Heinz et al., 2013; Kirkbride et al., 2008). Therefore, precarity as experienced by persons living with a diagnosis of schizophrenia is very frequently multidimensional and intersectional, and dimensions of precarity are often mutually reinforcing in their effects. They are 'synergistic, not additive' (Cromby, 2015).

Social and economic dimensions of precarity have been the focus of most studies in the social sciences and notably in geographies of mental health. Given that this is a rather recent field (Philo and Wolch, 2001), most of these studies have been written in the context of the deinstitutionalization of mental health care, i.e. the transition from an asylum-centred to a community-based system that took place at various times in most countries in the Global North after World War II. The resulting 'post-asylum spaces' were famously described in the 1980s by Dear and Wolch (1987) in North American inner cities as 'landscapes of despair' or 'service-dependent ghettos' of NIMBY exclusion, material and affective deprivation. In one of the first ethnographies of deinstitutionalization, Estroff (1985) powerfully narrates the

⁴ See http://www.who.int/mental_health/management/schizophrenia/en/.

⁵ Important initiatives, such as the Hearing Voices Network, have contributed to considering auditory hallucinations as meaningful and understandable responses to severe adversities rather than aberrant phenomena. This does not mean that hearing voices is not a factor of distress as it is related to feelings such as shame (Woods, 2017).

precarious housing conditions and subsistence strategies of persons with severe mental health problems in Madison, Wisconsin. Again in a North American context combining neoliberalism and deinstitutionalization, Desjarlais (1997), and a few years later Knowles (2000), portray the precarious lives of mentally ill homeless people moving between shelters, fast food restaurants and survival on the streets. Parr's (1997, 2000, 2008) important body of work on urban and rural areas in the UK, analyses the logics of exclusion and stigmatization of the mentally ill, but also explores more hopeful but still precarious forms of social inclusion.

Social science studies of mental health thus focus on the social, economic, cultural and material dimensions of precarity, while less attention has been given to health-related aspects. This broader view of precarity can be brought by the type of interdisciplinary work I discuss below. Health-related precarity is, of course, widely discussed in the psychiatric literature on mental health, but is framed in a different way. With the renewed interest in the etiological factors that lie beyond biology (Read et al., 2009), studies on the environmental causes of psychosis have recently flourished in psychiatry. Since the publication of a seminal text by Zubin and Spring (1977), the dominant approach has been to consider schizophrenia as the result of a combination of vulnerability and stress. Rejecting the idea that schizophrenia is a disorder that leads 'to chronic deterioration or unremitting impairment' (p. 117), they argue that it should rather be seen as the episodic result of a stress/vulnerability mechanism. Vulnerability in this model is related both to 'inborn' (such as genetic) and 'acquired' (such as trauma-related) factors, while stress involves a gap between the demands a person is confronted with and the self-perceived capacity to deal with them (Zubin and Spring, 1977). Schizophrenic episodes happen when stress exceeds a threshold that varies as a function of each person's vulnerability.

Recent etiological models of schizophrenia that combine biological, psychological and sociological factors, such as an integrated socio-developmental-cognitive model (Howes and Murray (2014), are refinements and developments of this vulnerability model. Work on the specific relation between environment and schizophrenia, using the concept of 'sensitization', follow a similar approach. Sensitization 'refers to the observation that individuals who are exposed repeatedly to an environmental risk factor may develop progressively greater responses over time, finally resulting in a lasting change in response amplitude' (Collip et al., 2008). In this context, recent studies using devices allowing participants to assess their levels of stress (Kimhy et al., 2009; Myin-Germeys et al., 2009) have shown that sensitivity to momentary stress is correlated with more intense psychotic experiences (Reininghaus et al., 2016).

This recent work in psychiatry clearly moves away from biological reductionism or what Read et al. (2009) playfully called the 'bio-bio-bio model' and opens interesting possibilities for interdisciplinary work on mental health between the life sciences and the social sciences. However, the sensitization perspective is characterized by the limitations of a vulnerability approach that I described earlier in this section. Sensitization is analysed primarily at an individual level through a series of aspects: 'exposure' (to environmental risk factors), 'coping strategies' (as forms of stress management) and 'resilience' (after episodes of crisis).

From a social science perspective, three epistemological observations can be made when reading this flourishing literature in psychiatry on the environmental factors influencing schizophrenia. First, at the level of analysis of the individual, in the vast majority of cases, persons living with a diagnosis of schizophrenia are seen as having the ability to consciously identify, express and reflect on their experiences of urban stress. Following a procedure where stress is 'declared' by participants, levels of stress are recorded before and after (Ellett et al., 2008; Freeman et al., 2015) or during (Reininghaus et al., 2016) an activity on the basis of pre-established survey questions. Situations of stress that are pre-conscious and not declared are not taken into consideration.

Second, studies that aim to identify social factors in urban living are mainly epidemiological (e.g.: Allardyce et al., 2005; Bhavsar et al., 2014; Boydell et al., 2001; Kirkbride et al., 2014). However, the relevance of these studies is limited by possible ecological fallacy, i.e. by the fact of deducing individual processes from aggregate data. In Bhavsar et al's (2014) study in Lambeth, South London on the relation between deprivation and criminal offense on the one hand, and incidence of schizophrenia on the other, correlations at area level tell us nothing about the actual relations of these phenomena at the individual level.

Third, what are missing from this body of studies are aspects of 'structural disempowerment' related to governmental investments in mental healthcare or access to affordable housing as factors of precarity. This is what the previously-mentioned studies in geographies of mental health have powerfully provided since the 1980s. This is also what the recent Power Threat Meaning Framework (Johnstone et al., 2018) foregrounds. This framework suggests that social context – childhood adversity, social class, unemployment, gender, class, ethnicity – plays a greater role in the development of functional psychic disorders (including schizophrenia) than do biological factors. The study thus contests the prevailing pathologising and medicalising approach to psychological distress according to which 'psychological distress has primary organic causes' (Johnstone et al., 2018). This is also true for the vulnerability-stress model in

which 'life events have been relegated to the role of 'triggers' of an underlying genetic time-bomb' (Read et al., 2013).

While I find this critique of the vulnerability-stress model exaggerated – at least when considering its original formulation by Zubin and Spring (1977) – I have much sympathy for the central arguments of the Power Threat Meaning Framework. This ambitious synthesis where biology is seen as an enabler rather than as a primary cause offers promising alternatives for the study of, and intervention in, phenomena of psychological distress. By giving priority to the role of urban living, the research on which the present paper is based contributes to this perspective on mental health. However, this paper does not foreground the structural social dimensions of precarity, for instance, as they manifest themselves in patterns of social segregation. Rather I focus on another blind spot of the research on the city-psychosis nexus: the analysis of persons' embodied and affective encounters with the city: or in other words, precarity as embodied affect (Duff, 2017). By embodied affect I refer to the phenomena related to the pre-cognitive bodily sensations that occur in urban situations (Anderson, 2009). There are of course, numerous studies of the subjective experience of persons living with a diagnosis of schizophrenia. In particular, they have been central to the phenomenological tradition in psychiatry and psychology since Karl Jaspers' (1972; German original edition: 1913) early 20th c. advocacy of an empathetic understanding of schizophrenia. The phenomenological approach has been crucial for an understanding of schizophrenia as a disorder of the self and more specifically as a problem of hyper-reflexivity and diminished self-affection (Sass, 1992; Sass and Parnas, 2003). Moreover, the 'sense of self and the sense of *immersion* in the world is inseparable. We are self-aware *through* our practical absorption in the world of objects' (Sass and Parnas 2003, 430). In other words, the specific sense of precarity related to a troubled sense of self is situated in, and related to, a material context. It is emplaced. However, empirical phenomenological accounts rarely take this world of objects into consideration in a systematic way because, while they recognise the importance of non-reflective sensibility in what they call 'operative intentionality', they rarely take it into systematic consideration (Sass and Parnas, 2003). Therefore, this paper focuses empirically on precarity as embodied affect analysed in context.

As this review shows, recent studies in psychiatry and the social sciences share a focus on environmental and social dimensions of mental health. However, their epistemologies and ontologies most often widely differ. Epidemiological studies based on aggregated statistical data contrast with qualitative fieldwork focusing on individual and collective experience. While precarity is understood predominantly as having a biologic origin in psychiatry, it is

generally understood as socially situated and determined in the social sciences. Urban living is understood in psychiatry as exposure to risk factors and in the social sciences, and particularly in geography, as relational experience. The following section explains how the study on which this paper draws was set up as an interdisciplinary endeavour which takes advantage of and straddles across these differences.

An interdisciplinary co-laboration

The research project from which this paper is drawn involves psychiatrists, geographers and linguists working together to create a 'radical interdisciplinary intervention' (Callard and Fitzgerald, 2016) in the sense that it involves joint labour which induces reflexivity and change in the disciplines that collaborate - what Niewöhner (2015) calls 'co-laboration'. As I explain below, instead of searching for solutions to epistemological difference through initial debates on questions such as differing criteria of scientificity, we incrementally built our research design on a common knowledge interest. There were two central moments in this process of co-laboration: the co-design of the project and the co-experimentation with the empirical material we produced⁶.

In our case, co-design started with the identification of a common matter of concern. We were all interested in doing research on environmental factors in psychosis and how the urban plays a role in the onset of psychotic troubles. This approach contrasts with research that focuses on how persons living with a diagnosis handle urban life, which is where the bulk of research in the social sciences – and notably in human geography – lies. We wanted to work together on aspects of the aetiology of psychosis. On the basis of this common idea, we started by reviewing current research in both psychiatry and geography.

These reviews showed, as the previous section explains, that in psychiatry the vast majority of studies deploy epidemiological approaches to identify correlations between the prevalence of schizophrenia and different features of the urban environment in order to test causal explanations in terms of biochemical pathways to the onset of the syndrome (Söderström et al., 2016). In human geography, on the other hand, the majority of studies since the 1990s employ qualitative (often ethnographic) approaches to analyse the everyday experiences in cities of persons diagnosed with mental health problems.

That brought us to the first and epistemic moment of our co-laboration related to a common awareness of the limits of epidemiology. Of course, epidemiological approaches are very

⁶ For reflections on co-experimentation in similar interdisciplinary projects, see Callard and Fitzgerald (2016).

useful in order to identify general patterns. This has been the case since the pioneering work of Faris and Dunham (1939) on Chicago in the 1930s showing that schizophrenia – unlike other mental disorders – followed a centre-periphery pattern, with a concentration of cases in the poor areas of the inner city. Pursuing the work of the two Chicago sociologists, geographers conducted similar ecological studies especially in British cities between the 1960s and the 1980s (Dean and James, 1981; Giggs, 1973).

These approaches have three shortcomings. As mentioned earlier, the first limit is ecological fallacy (deducing individual processes from aggregate data). The second problem is the lack of analysis of persons' embodied and affective encounters with the city. However, more recent work in psychiatry has shown that the sensorial and interactional dimensions of daily life – which cannot be captured by classic epidemiological approaches – seem to be crucial in the onset of psychosis (Kimhy et al., 2009; Myin-Germeys et al., 2009). Third, social epidemiological approaches analytically decompose the urban into a set of discrete variables such as pollution or criminality. This is important in order to move towards possible causal testing of hypotheses, for instance, on the relation between pollutants and the biochemistry of schizophrenia. However, what is lost is an understanding of the urban as a milieu, or assemblage of heterogeneous elements.

This led us to hypothesise that an analysis of young patients' residential biographies and experience of urban space could generate new understandings of how urban milieus influence the emergence of psychosis. On that shared ground, we developed a common way of working consisting of: a main research question – 'How, when and where is a sense of stress or comfort occasioned in young psychotic patients' experience of urban milieus?'; a conceptual framework drawing from work on the geographies of mental health – seeing the experience of the city as related to social interaction, the built environment and mobility; and a set of mixed methods, including video-recorded walk-alongs with patients involved in a therapeutic programme, video-elicitation interviews, focus groups with care workers and a survey with a larger group of patients from the same programme. The video-recorded walk-along draws on an ethnomethodological perspective focusing on situated practice (Merlino and Mondada, 2018), while the video-elicitation interviews draw on discourse analysis (Söderström et al., 2016). They together provide means to overcome the epistemological limits of epidemiology.

As important as the co-design, and less frequent in interdisciplinary endeavours, was the co-experimentation within this research frame. Each walk involved a linguist specialised in the multimodal analysis of social interaction, a geographer and a psychiatrist. This allowed

interdisciplinary exchanges after the walks and the constitution of shared experiences with persons living with a diagnosis of schizophrenia. The video-elicitation interviews, conducted one or two weeks after the walk, involved a similar interdisciplinary team.

For the analysis of these interviews, themselves video-recorded, we proceeded differently (see Figure 1). We created a group of psychiatrists and geographers who watched the video-elicitation interviews together during what we called an 'interpretation lab'. This set the stage for an interdisciplinary interpretation of the interviews combining the clinical and research-based knowledge of the psychiatrists and the research-based knowledge of the geographers on situated urban practices. The two linguists in the team used an ethnomethodological approach to produce a fine-grained multimodal transcription and interpretation of the walks (Merlino et al., Submitted). We chose to separate the analyses of the video-elicitation interviews and of the walks themselves (Figure 1) because in this way we could articulate and confront two interpretations: one focusing on discourse and the other on interaction and practice.

To summarise this epistemic moment: we chose both to combine the analytical frameworks of psychiatry and geography in the analysis of video-elicitation interviews and to harness potential differences in results between this interpretation lab and the interactionist video-analysis. Instead of looking for epistemological integration, which is often a conservative strategy (Fitzgerald and Callard, 2016), we decided to experiment other forms of interdisciplinary articulations. In terms of reflexivity, this co-experimentation has allowed mutual work on – and critique of – the analytical categories of psychiatry and the social sciences. The jointly-produced reflexivity created ontological transformations, or re-specifications, of the phenomena we are working on. It is to these transformations I now turn. The geographers in the team were led to expand their perspectives on mental health beyond social constructivism. A social constructivist perspective on mental health has been predominant in the social sciences since the path-breaking works of Goffman (Goffman, 1961) on labelling and of Foucault (1961) on diagnostic categories, and is of course important. However, what it tends to leave out is an understanding of mental health as experienced, embodied symptoms (having to deal with voices in your head, for instance, while you walk in the city) (But see McGrath and Reavey, 2015; Parr, 1999). If, despite their important shortcomings, we consider medical diagnoses as being more-than-social-constructions, we need to pay attention to recent psychiatric accounts of the experience and functioning of schizophrenia. One of the major views in psychiatry today suggests understanding schizophrenia as a 'salience dysregulation syndrome' (Kapur, 2003; van Os, 2009). This

syndrome is related to an excess of dopamine, a neurotransmitter regulating the “salience” of environmental events and of persons’ internal representations. It results in difficulties to filter out irrelevant sensations and therefore to a hypersensitivity to the environment and a hyper-reflexivity in interactions with others. Interestingly, this hypothesis converges with phenomenological studies where hyper-reflexivity and ‘loss of natural evidence’ are seen as a core aspect of the subjective (Sass, 1992) and intersubjective (Fuchs, 2015) dimensions of schizophrenia. Drawing on this literature on salience dysregulation has allowed us to develop a biosocial perspective on how, for persons with a diagnosis of psychosis, struggling along in the city means having to deal with a sensorial and social milieu which is more complex to navigate than for others, as I show below. Our co-laboration has thus re-specified in useful ways the broad category of ‘mental health problems’ often worked with in the social sciences by bringing in health-related dimensions of precarity, which are as noted in the previous section often missing.

Ontological transformations and re-specifications have worked both ways: geographers have brought to the psychiatrists in the team a more complex understanding of the urban. Implicit in existing work on psychosis and ‘urbanicity’ in medical research is the idea that ‘the city’ is a set of material elements 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. In contrast, the co-laboration in this research draws on contemporary urban studies in which the urban is envisaged as a series of mobile, heterogeneous phenomena that people encounter and actively assemble. It has convinced psychiatrists in the team that the role of the urban in people’s lives should be seen as situational and not reducible to the notion of ‘exposure’ to something invariable. It has led them to a more nuanced and less deterministic vision of the city/psychosis nexus. Density, for instance, a central urban factor in psychiatric studies of schizophrenia (Vassos et al., 2012), is considered as a ratio between the size of a population and a given area. In contrast, our situational approach shows that there are different forms of density, experienced in various and sometimes very positive ways and therefore likely to have differing consequences for people with mental health problems (Söderström et al., 2016).

In summary, the design of our co-laboration consisted of an epistemic moment where we decided to ‘stay with the trouble’ of epistemological difference and use its heuristic potential, rather than try to resolve it from the start or by looking for the integration of perspectives into a unique framework. The transformative dimension of the co-laboration was manifest in moments of reflexivity and ontological transformations that affected our respective analytical

categories. I now turn to some empirical results regarding precarious urban practices produced by our interdisciplinary strategy.

A choreography⁷ of precarity

Mental healthcare in Switzerland, a country where a number of welfare state services persist, is quite different from what can be found in contexts where neo-liberalisation has been more intensive, such as the US or the UK. For instance, none of the participants was homeless at the time of the study, although some had been so in the past for some period of time. Moreover, Lausanne, where the study was conducted, is situated in a Swiss Canton which has Switzerland's most developed service of mobile psychiatric intervention in patients' milieus, which is accompanied by a largely deinstitutionalized care system (Baumann et al., 2013; Bonsack and Favrod, 2013). This implies that in Lausanne, the 'structural disempowerment' dimension of precarity, although indisputably present, plays a less significant role in the urban life of persons living with a diagnosis than in the contexts studied by other scholars such as Knowles (2000) on Montreal. The setting for our study is thus appropriate in order to focus on health-related aspects of urban precarity.

In what follows, I draw on results from the video-elicitation interviews which followed the walk-alongs and on the results from the survey to identify patterns in urban practices, or a choreography of precarity. I also use the ethnomethodological case-study of one of the walks which captures many of the elements we found across our empirical material. The case-study was with Benoît and his friend Nadia. In both cases we adopt a relational perspective where participants are seen as encountering differing urban situations rather than being 'exposed' to the types of urban stress factors described in psychiatric studies.

The urban practices we observed are characterized by two general trends: a geographical retreat followed by a widening of practices; and a series of tactics participants describe as stress-related. First, after an initial episode followed by a period in an inpatient clinic, participants tend to limit the time they spend outside their home. Subsequently, they begin to leave their apartments more frequently and with time, venture further away. Participants slowly 'tame the street' by increasing the radius of their movements step by step (Bister et al (2016). This process is simultaneously a reconnection to urban space and to wider social networks in which a series of human and non-human resources are mobilized. One of our participants told us, for instance, how the kids in his block helped him to venture out of his

⁷ 'Choreography' is a term used by Martina Klausner (2015) in a slightly different context in her ethnographic work on mental health clinics in Germany.

home. They acted as first re-connectors to a wider sphere of urban life. A general trend in these precarious forms of urban life is thus a focus on the home and then a geographical widening of the spheres of urban practice.

Tactics related to the avoidance of stress represent a second general trend in the practices of the participants. The survey we conducted with 117 persons involved in the programme shows that nearly half of them (47%) use the city centre less than they did before their first diagnosed episode of psychosis. Except for when they could not avoid it, half of the 20 participants in our go-along study tried to avoid spending time in the city centre altogether; another 25% chose to go to central areas at non-busy times during the day or the week; while the last 25% moved regularly through different parts of the city.

Beyond these general trends, the results of the survey show that choreographies of practices are shaped by four main situations of unease : crowded places, the gaze of others, noise, and physical contact (Conus et al., Submitted). Not all participants are sensitive to the same aspects of urbanity, but these four aspects were described as more problematic for a majority or significant minority. They are correlated with decisions to avoid going to the city centre.

These factors are what organize practices, put them in movement and set them on specific trajectories. In what follows, I describe three recurring logics of the practices we found in our study: home-making, programming and 'bubble making'. They result from the detailed study of the video-elicitation sessions collectively conducted by psychiatrists and geographers in the team. They are nuanced by elements drawn from the video-analysis of one of the filmed walks conducted by the ethnomethodologists in the team.

Home-making, or what we called 'creating zones of comfort' (Söderström et al., 2017) constitutes one mode of rendering the city habitable. Not surprisingly, the apartment works as a safe haven. Rachel, one of the participants who lives in the city centre, explains how she immediately heads home when she feels unwell, 'even if I have an appointment or something to do'. But home-making in a broader sense also takes place in quiet zones of the city like parks or the lakeside. These parts of the city are chosen because they provide calm surroundings away from crowds, agitation and noise. They are described by participants in terms of their atmosphere: they produce a relaxed mood because people there are relaxed or 'positive', as Oscar puts it. A closer look at practices in such places through our case-study provides a better understanding of their affective dimension. Benoît thus orients his walk with his friend towards the lakeside. It is a deliberate choice to go where he chooses a quiet place to sit and enjoy the view (Figure 2). The video analysis of his interaction with his friend Nadia shows two things. First, through bodily postures and by re-launching topics of conversation,

he demonstrates his desire to stay in this quiet spot.⁸ Second, in this ‘zone of comfort’ the interactional and affective atmosphere changes. Before arriving there, the conversation was sometimes nervous and Benoît makes many requests for clarifications of what Nadia was saying. At the lakeside, they light up cigarettes, get closer together and the conversation becomes more collaborative, shown by the fact that Benoît often kindly completes what Nadia just said. This is one instance of how, in various urban settings, participants create ‘atmospheres of recovery’ (Duff, 2016) by assembling variegated elements: a site, the position of bodies, the taste of cigarettes, a conversational rhythm and style. In contrast with the epidemiological maps of psychiatric studies, the urban is observed here as relationally constituted. Our strategy of epistemological articulation (rather than integration) allows us to productively use the differences between results stemming from the survey, the video-elicitation sessions and the video-analysis.

Programming trajectories is a second tactic used to make the city habitable. A majority of participants explained how they carefully plan how to go from one place to another before leaving their homes. William thus explains: ‘I thought about your study before I came and about the fact that I was... I try to really optimize my journeys to the smallest detail’; while Rachel says: ‘I know everything already before I go out’. Smartphone apps are often used to that effect even for familiar areas, but it can also be a purely mental planning process. The aim is to produce a predictable experience in order to avoid stressful milieus or encounters. Once on the street, a constant scanning and monitoring of the environment takes place for the same purpose. As Alex says:

‘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 analyze whatever small thing close to me is not in its place.’

Control practices also clearly appear as an interactional accomplishment in the case-study. Benoît does not disclose his plan for the walk to Nadia but clearly leads the way by initiating direction changes (see Figure 3) or for instance, by indicating where to go next with movements of the chin. Benoît explained the reasons for some of the direction changes during the video-elicitation interviews. He explains why he turns left into a tunnel and leaves a busy street (Figure 4):

⁸ They eventually stayed there for more than 30 minutes.

‘Here I cut the city to take a quieter side-street with less density’ [...] I avoid noise and density: the more people you have, the noisier it gets.

Interviewer: it’s not only people that are the problem but also the noise they make?

Benoît: Because with the voices that speak to us in our head it makes an additional noise, it depends how many you have in your head. If you add the external noise, after three or four hours, even with medication, I have to leave. So here, on purpose, I cut the density of the city’.

In the recorded conversation with Nadia during the walk, Benoît also thematises ‘in real-time’ the fact that he avoids dense areas - what he calls at one point ‘places with intensity’ - indicating that it is a matter of activities in a place rather than simple demographic density. The importance of programming and predictability also appears when, during the walk, a member of the research team asks Benoît and Nadia to go in the direction of a shopping mall. In Benoît’s following interactions with Nadia there are clear signs of irritation while he plans how to get there and how to integrate this unexpected constraint into their walk. These tactics relate to the avoidance of stressful situations or the presence of auditory hallucinations. They highlight health-related dimensions of urban precarity rarely studied in the social sciences and, in other words, one of the ontological transformations that took place in the collaboration.

Monitoring, control and programming are not the only tactics used to make the city habitable. As the opening lines of this paper suggest, the task of navigating the city can also be left to another person, when there is a relation of trust. This leads me to a third recurring way of dealing with urban space that I called ‘bubble making’⁹.

Creating sensory bubbles appeared in the study as the common denominator of a series of practices described in the interviews: wearing headphones, concentrating on the Smartphone, consciously immersing oneself in thoughts, getting involved in close interaction with another person by bodily movements and intense conversation.¹⁰ For example, William says that he screens out the environment by constantly watching the ground while he walks to help him stay in his ‘interior dialogue’. These practices were explained by participants as ways of filtering out the surrounding environment: the gaze of others, noise, visual complexity. Bodily and particularly facial attitudes expressing indifference were also given as

⁹ It is interesting to notice how Sloterdijk’s (2011) vocabulary describing humans as creators of ‘climate-controlled’ milieus — bubbles, spheres, atmospheres — characterizes many of these tactics.

¹⁰ For more details, see Söderström et al. (2017).

examples of how to abstract oneself from the urban milieu and avoid potential social interaction.

The case-study shows more precisely when the interactional bubble works to filter out what happens in participants' surroundings, and when it does not. The analysis of the changes in the interaction between the two co-walkers shows how the 'bubble' changes. Near the beginning of the walk, there is a car horn. This type of strong and unexpected noise is identified by the participants in our study as a major source of stress. However, Benoît is engaged in a conversation with his friend and does not give signs that he has noticed it or is disturbed by it. Later on, they walk through a pedestrian tunnel – a situation Benoît described in the video-elicitation interview as problematic because of the noise amplification effect – and come across a child using a scooter moving in the other direction. Here the conversation is modified with Benoît becoming more hesitant and his word flow more discontinuous. The conversation and bodily interaction with Nadia is further modified close to the end of the walk. The two of them are walking on the sidewalk along a busy street when there is a sudden loud noise, probably caused by a metal object falling onto the pavement. A few seconds later, there is another loud noise. The result is that the interactional bubble created by Benoît and Nadia seems to burst for the first time during their walk. Benoît first reacts by delaying his responses to his friend, and then he stays silent for 30 seconds until Nadia asks a question which Benoît answers in an irritated tone. He also stops looking at her and moves away from her (Figure 5).

In contrast with psychiatric studies of mental health, this sequence shows that sensory stimulations *per se* are probably not sources of precarious encounters with the city. Although the measure of noise in terms of decibels can tell us something about areas of discomfort for persons living with a diagnosis of schizophrenia, questions of 'sensory overload' – as they are termed in psychiatry (Bunney et al., 1999; Micoulaud-Franchi et al., 2012; Mishara and Fusar-Poli, 2013) – cannot be abstracted from the specific situations in which sensory stimulations are encountered. Benoît's differing reactions to noise are mediated by the interaction with his friend.¹¹ His reactions might also be dependent on an accumulation of elements in that last street stretch or on the cumulative effect of stress factors along the walk.

These empirical results indicate how co-experimentation led the team, composed of researchers used to work with different epistemologies, to adopt 'contaminated ontologies', i.e. enriched definitions of urban living and precarity. The tactics developed by persons living

¹¹ For a detailed ethnomethodological discussion of participants' ways of handling noise, see Merlino et al. (Submitted).

with a diagnosis of schizophrenia and exemplified by the three preceding vignettes compose a specific choreography of urban precarity. They are predicated on the central role of hypersensitivity and hyperreflexivity in schizophrenia as an embodied experience (Sass and Parnas, 2003). While to a large extent, epidemiological approaches evacuate lived experience and studies inspired by phenomenology tend to be exclusively interview-based, the mixed methodology using mobile video-recorded walks we put in place provides a relational and situated understanding of the city – psychosis nexus. Our co-laboration has taken the dyad – patient /care worker – out of their usual places of interaction: the hospital, the community care service, the research lab. Co-design and co-experimentation has led us to create a hybrid between research in the lab and research in ‘the wild’ (Callon and Rabeharisoa, 2003) in which to systematically study in situ relations between urban living and schizophrenia. During this interdisciplinary project the reflexivity and change that Niewöhner (Niewöhner, 2015) associates with co-laboration has consisted in two processes. On the one hand, it has led to the development of an enhanced sensitivity by psychiatrists in the team to the role of an embodied, mobile and relational sense of space and place in mental health.¹² On the other hand, for the social scientists in the team, it has led to a greater sensitivity to the biosocial dimensions of urban precarity. In my concluding remarks I discuss how the study of these biosocial dimensions necessitates the creation of new epistemic alliances.

Conclusion: on new alliances

In a review of new directions in health geography, Guthman and Mansfield (2013) invite geographers to revisit the environment-body relation. They argue that geographers have generally sought the environmental determinants of health, ‘treating the environment as a setting and the body as a separate object influenced by this setting’ (488). To move beyond these views, they argue for a more relational perspective in which the environment is active rather than an inert container and the body is a porous, socio-natural phenomenon, rather than a strictly bounded entity.

Such a relational perspective asks us to reconsider the historical divide between the life sciences and the social sciences. I share with Rose (2013) the position that new alliances are possible and necessary between these disciplines. Biology is no longer the enemy we have learned to shy away from in the social sciences. Contemporary molecular biology, for instance, is far from being simply deterministic and mono-causal: rather, life is seen as an open system.

¹² This is contributing to work under their lead on therapeutic strategies including patients’ spatial biographies and practices (Baumann et al forthcoming).

Biology has been moving away from a 'hard view of heredity' (Meloni, 2016). This hard view was embraced rather than contested by the social sciences in the early 20th century, because it opened the possibility for social sciences to focus on what were understood as purely social and cultural phenomena distinct from biological influences. While biology is 'zooming out' to include larger environmental factors, the body and even the visceral have become important themes in contemporary social sciences and notably in geography (Hayes-Conroy and Hayes-Conroy, 2010). There is a growing awareness in the social sciences that we cannot ignore biology. In this context, the question is: how can we explore biosocial entanglements without reducing society to biology, or biology to society?

The reply I give in this paper is that we need to move beyond the simplistic stance in which social scientists are happy to simply distance themselves from the reductionism or disciplinary power of (partly) biological disciplines like psychiatry. We should instead try to be symmetrical, allowing disciplines to transform through co-laboration. In concrete terms, this requires more co-designed research where we seek to articulate differing epistemologies or ways of considering knowledge-production. It also requires more co-experimentation: working together on methods and data in order to use differing data sources, exchange interpretations and write publications that make sense across disciplinary divides.¹³

Such co-laborations can open the understanding of precarity to mechanisms beyond social determinations. I have argued in this paper that the concept of precarity better incorporates politics, inequality and discrimination than other concepts, such as vulnerability, used in the social sciences to analyse the hardships of contemporary everyday life. Vulnerability is also a central concept in recent aetiological models in psychiatry seeking to explain the origin of schizophrenia: the black hole or 'sublime object' of psychiatry in Woods' (2011) felicitous expression. However, since the 1980s, geographies of mental health have analysed the structural dimensions of precarity in the era of deinstitutionalization, shedding light on social determinations which this vulnerability-stress model tends to evacuate.

Developing and extending these lines of thinking, this paper has looked at precarity from a different, more interdisciplinary perspective, seeing it as embodied affect. This not only brings the bodily and the material into the analysis of precarious urban lives and the right to the city (Duff, 2017), but provides ways of developing a socio-natural understanding of precarity. The precarity of people living with a diagnosis of schizophrenia is not only the result of simply

¹³ On studies of bio-social entanglements that should move beyond polite interdisciplinarity, see Fitzgerald and Callard (2016).

adding social on to biological factors, but of the entanglement of the two: 'Urban mental pathologies seem, inescapably, *both* neurobiological and social' (Fitzgerald and Rose, 2015). This paper has explored some of these entanglements by using hybrid frames of interpretation. Our exploration is of course limited. We decided to focus on the experience of the city and to leave out more general social dimensions explaining the precarity and health problems of the participants in our study. Also, we did not use biological sensors or markers allowing us to follow biosocial pathways (but see Winz and Söderström, In preparation). Accepting epistemological plurality and ontological contamination can also be risky in a scientific world where demands for theoretical and conceptual purity are high and disciplinary borders carefully patrolled. But, if the reward is a broader biosocial understanding of phenomena like urban precarity, it is worth taking the risk.

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Figures

Figure 2: Video-recorded go-alongs

**Video-recorded go-alongs
(10 patients)**

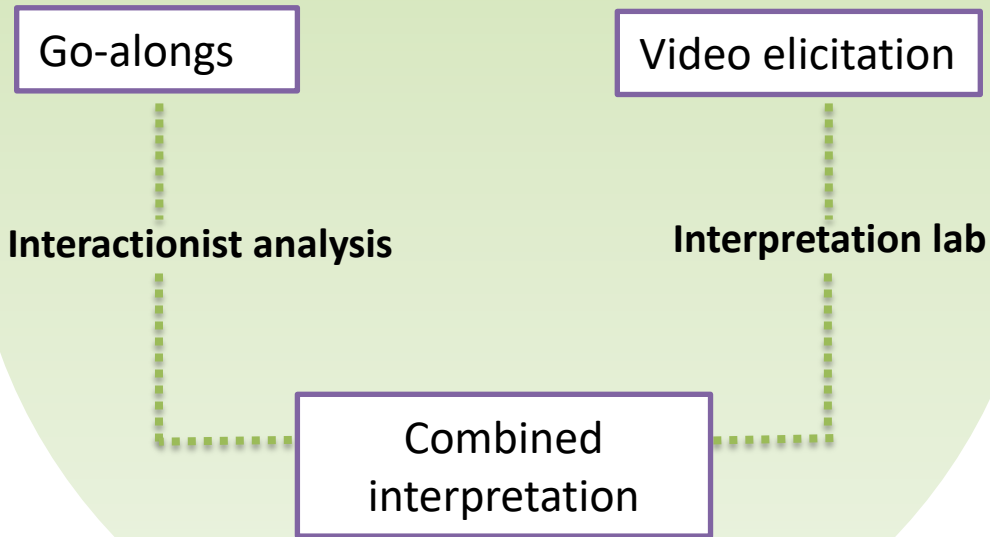


Figure 2: Benoît and Nadia arriving at the lakeshore



Figure 3 : Leading the way



Figure 4 : Benoît explaining how he 'cuts the city'



Figure 5: Breaking the bubble



Before.....and after the noise.....