Mental health ecologies and urban wellbeing

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A B S T R A C T

How might urban mental health be understood when animals reconfigure human wellbeing in the lived city? Drawing upon ethnographic fieldwork on people and macaques in New Delhi and forging novel conversations between urban studies, ecology and psychiatry, our ontology of urban mental health moves from lived experience of the built environment to those configured by dwelling with various interlocutors: animals, astral bodies and supernatural currents. These relations create microspaces of wellbeing, keeping forces of urban precarity at bay. This paper discusses mental health ecologies in different registers: subjectivity being environ*mental*, its scale being relational rather than binary, enmeshed in the dynamics of other-than-human life, and involving conversations between medical and vernacular practices rather than hierarchies of knowledge.

1. Urban wellbeing and the ecology of mental health

A troop of macaques descends from high rises of Connaught Place. Sliding down pipes, their adept movement becomes a series of silhouettes over shops selling sacred threads and bangles, before turning into an undulation as the simians clamber across electric wires, casting shadows on astrologers and palmists reading the fortunes of people, twenty feet below. This vertical descent comes to a slow halt as the animals reach the tiled plaza in front of Delhi's iconic Hanumān Temple, thronging with an evening crowd that has come to offer prayers and alms to the needy. With a sure extension of their forearm, a macaque reaches out for a banana offered by Anuj, a devotee. A transaction and a transspecies action take place: food for the simian and the harnessing of *punya* – a diffuse, cleansing merit – for the person. "I come here every Tuesday to feed monkeys," he remarks, repeating the action until his dozen bananas are gone.

From a lower middle-class rural family in Bihar, Anuj had come to Delhi over a decade ago in search of employment. His first appointment, materialising after several unsuccessful applications, turned into an exploitative situation: "I worked for two years, but my employer never paid me." Anuj then went to Kuwait to work for a hospital chain: "News broke out that Indian workers were trapped, as the documents they had

were deemed illegal. Employers were deploying this tactic to force us into indenture." Upon returning to Delhi, efforts at finding another job were futile. His condition deteriorated. Anuj began losing hope, wishing to end his life. "Many times, I thought of wanting to stab myself," he recounts, "I became sceptical, even angry with God for my predicament." Nothing seemed to ameliorate his situation. Out of desperation, Anuj enrolled into IT classes and began fasting every Tuesday when he would visit Connaught Place's Hanumān Temple to participate in rituals and feed macaques: "This routine, and interacting with the monkeys, made me experience a deep transformation." Anuj's mental health gradually improved, and he even managed to secure a position in a multinational company. "All credit goes to God," remarks Anuj, who continues his weekly routine of praying to Hanumān and provisioning macaques: "These visits to the Hanumān Temple have renewed my faith in life."

Anuj's story is a compelling entry point for posing questions regarding the relationship between mental wellbeing and ecologies of experience in contexts of urban precariousness. That urban spaces generate mental distress, be it through social segregation and eviscerations, inequality and violence embodied in diverse urban arrangements, has been a long-standing refrain in the social sciences (Fitzgerald et al., 2019). There is a parallel movement of global mental health that shifts

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the focus from counter-therapeutic and toxic landscapes, generating ill-health, to an emphasis on clinics and hospitals, and medicalises the language of distress (Jadhav and Barua, 2012; Napier et al., 2014). But, as Richaud and Amin poignantly ask, what might it mean to examine, ethnographically, the moments of relief, "the small gestures and place-making activities through which the melancholy is kept at bay, if only temporarily" (Richaud and Amin, 2020, p.85)? We might push their question further. What work do alignments between people and other-than-humans do in terms of dealing with adversity and how might this enable articulating "a thicker ontology of urban mental health" (Fitzgerald et al., 2016, p.154), that does not flatten lived experience and is open to unexpected interlocutors with whom urban lives are led (Nadal, 2020; Solomon, 2015)? And why are these ecological currents ignored by mental health professionals?

Our emphasis here is to develop an ecology of urban mental health, attentive to other-than-human forces that constitute the multiplicity of the lived city and forge dynamic, but durable, modes of urban experience. We look beyond the emphasis on zoonosis and pathology that marks much current writing and concerns about human-animal entanglements to attend to forms of wellbeing that living alongside other-than-humans generate. Our turn to ecology starts from long-espoused arguments that the mind is immanent in organism-environment relations (Bateson, 1972), and that what we term 'the mental' is inexorably intermeshed with ecologies of capital and of the environment (Guattari, 2000). In contrast to the cognitivist psychiatry from which majoritarian grammars of global mental health draw fuel (Napier et al., 2014), an ecology of mental health takes subjectivities to be produced through dwelling (Ingold, 2000) and interiority to be generated by ambient atmospheres, affective orientations to place, media ecologies and relations with other-than-humans (Hörl, 2018; Simpson, 2013). An environ*mental* disposition, where the mental is environed or enmeshed in its ambient surroundings, opens up the space for attending to how "forms of illbeing" are "managed in ways that become absorbed within everyday rituals of being" (Richaud and Amin, 2020, p.78), whilst holding on to states of distress generated by uneven political economies.

Routine interactions with, including feeding, macaques entail transactions that are simultaneously material and semiotic, meaningful to both parties involved in the volatile exchange. Whilst zoonosis has been the subject of evocative work on Delhi's human-macaque entanglements (Nadal, 2020), our endeavour here is to strive towards an *ecology of mental health*. We attend to the affects that other-than-humans elicit in people, an arena that has concerned new health geographies (Andrews and Duff, 2019; Gorman, 2019; Jadhav and Barua, 2012), but in ways that extend the implications of sentient encounters for human lives to those of other-than-humans as well. This is a radical proposition for nascent arguments that health is not a physiological or psychosocial condition but a 'mode of existence' (Andrews, 2019), with neglected modes of existence of other-than-humans and the urban micropolitics they spark being brought into the fray. An ecology of mental health would thus need to open up inquiry into a suite of relations within the urban sensorium rather than limit it to the human subject alone. These modes of existence need to be examined ground-up in order to arrive at a thicker ontology of urban mental health, open to the multiplicity of the lived city in its everyday and vernacular itinerations (Gandhi, 2012).

Our argument and exposition of mental health ecologies and urban wellbeing draws upon ethnographic fieldwork and novel collaborations between urban studies, ethology[1] and psychiatry. Fieldwork was

immersive and observational: attentive to the behaviours of macaques and their interactions with people in quotidian settings. Our methodology entailed non-participant forms of observation, in that we did not resort to provisioning macaques or chasing them away in the ways some of our informants did. Over time, we were drawn in by the relations we were observing: a process of learning to be affected (Despret, 2004) by macaques and observing how others were affected by these beings. Crucial to our method – and the affective eye that we cast – was to not start with macaques as unknowable others but as sentient beings apprehending the city in their own, simian, ways. Equally important was the endeavour to inculcate an awareness of a suite of other-than-human forces that people referred to rather than write them off as epiphenomenal. More specifically, fieldwork was carried out by an interdisciplinary team entailing geographers (MB, GK, UG), an ethologist (AS), ecologist (PJ), and clinical anthropologist (SJ) over twenty months. Semi-structured interviews were conducted alongside observations at the Hanumān Temple and BCG Hospital,[2] a premiere public healthcare institution in Delhi, to elicit people's stories, often after witnessing their encounters with macaques or after events of provisioning. The process of research was abductive rather than inductive or deductive: we let observations of encounters and people's accounts lead to the problem that we posed and the narrative that followed.

The paper unfolds in four parts. We first remap the urban as an ecological formation, examining quotidian relations between people and macaques, and the ways in which the state seeks to intervene in these relations. The paper then turns to what we call microspaces of wellbeing that emerge through affective arrangements and entanglements between people and macaques, spaces that have the potential to alter the everyday, be it in the lightest of ways, and foster practices of endurance, sometimes barely perceptible. We then contrast microspaces of wellbeing with majoritarian spaces of healthcare, where human-macaque entanglements are shunned and sanitised from affective contagion. In conclusion, we discuss the wider implications of this argument for specifying ecologies of urban mental health.

2. The metropolis as an ecological formation: macaques and people in Delhi

Ubiquitous in Delhi and other urban centres of northern India, the rhesus macaque, a nonhuman primate, has become increasingly urbanised over the last four decades, a becoming-urban of macaques that is underpinned by a distinct set of political economic forces. In the 1950s, the animal was predominantly rural, rarely found in urban parks and residential areas (Southwick et al., 1961). Widespread capture of rural macaque populations for commercial trade and export for laboratory use, as urban macaques were deemed to harbour diseases, led to a gradual "urbanization among the rhesus populations of northern India" (Southwick and Siddiqi, 1968, p.203). It began to adapt to urban environments by shifting to anthropogenic food, obtained either through direct provisioning, salvaging from waste or by raiding people's homes. A ban in exports in 1978 saw a sharp increase in Delhi's macaque population (Malik, 1989) and by the mid-1990s, urban macaques formed the largest populations of the species across northern India (Southwick and Siddiqi, 1994).

This becoming-urban of macaques has equally been fostered by everyday practices of commensality. Delhi witnesses large-scale feeding of macaques, from passers-by, pausing to buy bananas from street vendors, to the affluent middle class, who bring food in cars, strewing large quantities of grams, vegetables and fruit by the pavement, thronged by macaques. These are largely the actions of devotees wishing to receive merit or *punya* (Gandhi, 2012; Nadal, 2020) or, as in the case of Anuj, small acts of making sense of misfortune and keeping distress at bay. Provisioning is transformative: it generates anthropogenic feeding

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[1] Ethology is broadly understood as the biological study of behaviour (Tinbergen, 1963), and encompasses behavioural ecology that attends to behaviour in natural environments rather than in laboratory-controlled settings. Our ethnography of human-animal encounters was conducted in a vein sensitive to animal behaviour, decision-making and their relations with people. This formulation is also open to perspectives that take ethology to be the study of affect (Deleuze, 1988).

[2] The name of the institution has been pseudonymised.

grounds and has enabled urban macaque populations to proliferate. Like human urban subjects, macaques do not experience the city passively but render the urban habitable through their own sentient ethologies and simian modes of dwelling. By dwelling, we refer to the active engagement of a being with the constituents of their surroundings (Ingold, 2000), akin to the acts of a skilled and situated practitioner as they work and intervene in their environments. Dwelling implies that awareness and activity are rooted in the engagement between a being and its ambient world, which it continually refashions and forges anew, often through acts that are quotidian and mundane.

Macaques are affected by their encounters with people. Our ecological and ethological work reveals how the animals differentiate between 'natural' and provisioned food, altering everyday rhythms, territories and foraging strategies to gain access to the latter (also see: Barua and Sinha, 2017; Sinha et al., 2021 forthcoming; Solomon, 2015). On days of the week – especially Tuesdays and Saturdays – when large-scale provisioning takes place, the macaque troops spend considerable time in and around the tiled plaza of the Hanumān Temple to gain access to what is nutritionally rich food. These are quotidian rhythms forged through interactions with people and with considerable bearings on the animals' lives, for they can lead to the development of an entire repertoire of behaviours not necessarily witnessed when such human-macaque encounters are absent. For instance, we have witnessed certain juvenile macaques elicit human contact by approaching food vendors and vocalising at them. These individuals, which often lose out on provisioned food when in the company of more dominant adults, evoke affects of empathy in people. A banana or biscuit is tossed, whereupon the juvenile scurries to take it before retreating to consume the item in safety. In other parts of India, juvenile macaques have been documented to develop novel hand-extension gestures and use them in conjunction with a soft coo call, co-opted from other, more natural, social situations, to elicit food from people. Reported for the first time in any free-ranging monkey species, such gestures are used only for communicating with humans and never when interacting with their own kind (Deshpande et al., 2018).

Provisioning, and the sentient encounters between people and macaques, have, in fact, led to the emergence of what one might call affective economies: economic arrangements that are contingent upon commensality and corporeal attunements that cross human-simian divides. A number of banana vendors in the city earn a living by selling fruit to devotees who, in turn, buy bananas, often only to feed macaques. Some of these vendors occasionally toss bananas to macaques to keep them in their vicinity and thereby attract customers. One vendor even regularly filled water in a well near his makeshift stall so as to ensure that macaques were invariably present in the area. Here, the ultimate consumers of commodities – bananas – are macaques. Their presence is vital for economic transactions to take grip and for value to be realised and, therefore, vendors actively cultivate relations with these sentient creatures. Human-macaque encounters thus subtend economic activity and give a new meaning to what constitutes 'the economic' in the urban sphere.

Whilst both people *and macaques* are inhabitants of the same urban world, a world they co-compose through mutual acts of dwelling, encounters between the two can also be agonistic. Macaques enter buildings, snatch food and disrupt electric infrastructure by using wires and cables for their arboreal movements. There is a majoritarian current within urban governance, which considers the city as space for humans alone and works to render Delhi free of simian presence or what the vocal urban elite calls the city's 'monkey menace' (Kashyap, 1960; Malik, 2001). Majoritarian logics stem from a capitalist and modernist aesthetic of the 'world-class' city, marginalising not just simian bodies but a range of other urban inhabitants, including street vendors and slum dwellers, seen to untune its codified vision (Baviskar, 2019). The New Delhi municipal corporation has been capturing and relocating macaques from the city for several decades (Gandhi, 2012), efforts intensifying after 2007 when they were directed by the Delhi High Court

to rid the city of all its macaques in three months. Accordingly, in the past thirteen years, over 20,000 macaques have been caught and relocated to the Asola Bhatti wildlife sanctuary in Delhi's outskirts (Rajput, 2018).

Majoritarian logics operate hylomorphically, treating macaques as inert bodies that can be acted upon and morphed into what the state or other institutions desire, without having a capacity to respond or decide otherwise. Majoritarian logics imply a hierarchy of knowledges, where a certain body of epistemic practices hold sway over others. Yet, after decades of intervention, 'the menace' is escalating. Capture and relocation has been plagued by chronic bureaucracy but, more importantly, subverted by the behaviours and actions of the macaques themselves (Barua and Sinha, 2017). New troops have moved into territories evacuated by captured macaques. They have learnt to avoid traps, rendering attempts at creating an animal-free global capital futile. Furthermore, court-dictates banning the feeding of macaques in public places are flaunted. Many members of the public state: "we are even willing to pay fines: nothing can come in our way of appeasing Lord Hanumān." To develop a thicker ontology of urban wellbeing, then, is to hold these rambunctious relations between ecologies of capital and environ*mental* ecologies in tension and in sharp relief.

3. Microspaces of wellbeing

"It is our responsibility to take control of our situations," remarks Anuj, who has found a way of dealing with cumulative anger and sadness, generated by an eviscerating urban landscape, through small acts of himself fasting but feeding macaques. These are small acts, not because they are diminutive in scale, but because they have other ends that are not mainstream and emerge from inhabiting the everyday. To the best of our knowledge, Anuj did not resort to psychiatric consultations. Instead, weekly visits to feed macaques carved out a routine, a series of quotidian actions that also forged connections to a readily available supernatural world. "But your own efforts matter," he says, "*Uparwala*, the one above or God, will not do everything." Routine, small acts were important: they fostered a transformation, at once material and psychological, providing immunity from immiseration. Anuj now wants to give back to society, asking if we knew of any educational trust or old-age home where he could contribute, either in kind or by volunteering.

Kusum, a married woman in her early forties, is another regular visitor to the Hanumān Temple. From a well-to-do middle-class family, her two sons, junior lawyers by profession, were having 'difficulties in their careers' and her own family ties 'were strained'. Kusum engages in elaborate prayer rituals at the temple: consultations with priests, feeding macaques, even talking to the latter, addressing them as 'her sons'. "Come *Chhotu*," says Kusum, extending her hand skywards, as a juvenile macaque descends from the concrete temple roof: "Take this." Kusum distributes over two dozen bananas, bought from a vendor, whose makeshift stall has been strategically set up by the entrance to the shrine, as a troop congregates around her. She has given macaques individual names and ascribes personalities to each. "I know them all," Kusum claims, "as I feed them so frequently." During these rituals, she whispers to the Hanumān statues, listening to 'their response': "They are my brothers and relatives."

Kusum's remarkable ability to navigate through a material urban world, actively dialoguing with religious figures and supernatural agents, summoned when feeding macaques, reveals how her dwelling in the urban environment is thickly enmeshed in an ecological formation. "My devotion to feeding monkeys has brought me peace and harmony," she reflects, indicating how subjective lives are environ*mental*, brought into being through porous encounters. Small acts enable Kusum to address family predicaments: "My two sons are now doing well, and it is entirely because of these rituals." Proximities with other-than-human beings are not just a momentary exchange of food and meaning for Kusum, but acts that give rise to fictive kinships with other-than-

humans. Supernatural relatives and simian kin create openings for coping with suffering and affective pain, fostering additional ways of dealing with hardship in the everyday.

Unlike Anuj, Kusum has had the financial means to access mainstream healthcare. Instead, she resorted to a cultural prescription: consultations with astrologers. Such prescriptions bring to the fore a whole other set of relations that shapes interiority, where the latter has less to do with being situated within an enclosed body, and more about affective contagion, including a symbolic and intimate connection with celestial bodies. Astrology is, in fact, among the fastest growing businesses in urban India. Its commercialisation has roots in market liberalisation in the 1990s, when urban the middle-classes were confronted with new fears and challenges of socio-spatial mobility, and has been bolstered by a saffronisation of the state, including imperatives of teaching astrology as a university subject. Astrology, as a Brahmanical, scripturally sanctioned practice, and whose semantics of destiny are linked to dominant caste values of achievement (Guenzi, 2012), thus casts the provisioning of macaques as a remedy for adverse effects wreaked by the planets.

Prescriptions, according to our informants, are accessed either through face-to-face consultations or, increasingly, through the digital world. "If viewed from the perspective of astrology, monkeys are significant," says Ravinder Rawat, an astrologer running his own YouTube channel, "they correct malefic actions of certain planets." This includes negative effects generated by *Mangal Graha* or Mars, which, according to Brahmanical scripture, dictates relations with one's friends and siblings. Ill-effects of Mars, Rawat says, lead to kinship ruptures. Recasting actions of macaques into omens, Rawat argues that "if you see a monkey seeking alms or begging, it is the planet Mars expressing itself. You stop getting support from relatives." Undoing such astral turbulence requires appeasing the deity Hanumān, who can nullify planetary ills. Macaques then become intermediaries in this ecology of dwelling, for Hanumān is "an incarnation of monkeys, their deified form". Small acts of provisioning are thus enmeshed in a suite of relations with anthropomorphic deities, invisible and power demons, and a culturally congruent semantic network of cosmological connection.

Individuals like Kusum cope with their predicaments by displacing causality to a retinue of bodies and by drawing on solutions that entail intervening in, and becoming porous to, a sentient, affective and semantic ecology. Identifying macaques and Hanumān as brothers is logically consistent within this situated ontology of urban life, where dwelling is at once grounded *and* celestial. The attribution of healing powers to Hanumān, and the consequent practices of commensality that it generates, in turn, has bearings on macaque modes of existence. Delhi witnesses widespread feeding of macaques on Tuesdays and Saturdays, days of the week considered auspicious in terms of Hanumān worship. Provisioning alters animal feeding patterns – and macaques show an awareness of these quotidian rhythms – but this increases inter- and intra-troop competition, even altering group composition, structure and individual behavioural propensities (Sinha and Mukhopadhyay, 2013). Large-scale feeding clusters nutritionally rich and processed food. It reconfigures the macaques' corporeal lives, generating conditions associated with urban human lifestyles, including obesity, high levels of cholesterol and diabetes (Barua and Sinha, 2017; Gruber, 2016).

The effects of such relations are not just corporeal, social and psychological, but ethological as well. Urban macaques resort to novel behaviours such as bipedal requesting – standing on hind legs to mirror an upright human body (Sinha, 2005) – in order to spark affects of sympathy and obtain food. Juveniles macaques are known to develop hand-extension gestures, which are directed only towards people *and never their own kind* (Deshpande et al., 2018). Ethological innovations in macaques, performed in relation to human bodies and commensal practices, opens up understandings of an urban sensorium no longer indexed by human subjects alone. In this context, subjectivity is the product of relations between the supernatural world and ecological beings, the rhythms of terrestrial inhabitation and celestial dwelling. It is a conjunction of environ*mental* and capitalist ecologies (Guattari,

2000), not just in an abstract register but, as this ethnographic attention to both human and macaque lives shows, a conjunction forged in the very thickness of the lived city.

Provisioning for macaques is also an avenue for dealing with misfortune. Sneha, a woman in her late twenties, was not a Hanumān devotee, but became one after her marriage, when a set of events unfolded. Her husband Aman, a Hanumān follower since childhood, fasted every Tuesday. One day, forgetting which day of the week it was, Aman ate meat whilst out with friends but was later consumed by fear and guilt. "He lost his job after a few months," says Sneha, who feels Aman was "punished for his mistake." She began worshipping Hanumān after the incident: "Every week I come to the Hanumān Temple and feed monkeys. This is important for correcting the malefic effects of *Mangal Graha*, which generated our predicament." Whilst her husband remains unemployed, Sneha's actions help foster cultural resilience, an affective immunity to misfortune and the generation of hope. "Things have not deteriorated as much as they could have," she says, "because feeding monkeys gives you protection."

Affective entanglements thus give rise to microspaces of wellbeing, and have the potential to alter immiserating conditions, even if in the smallest of ways. Such microspaces are forged through small acts and are akin to what others have called 'niching' – material-semiotic practices through which people render the urban viable and habitable (Bister et al., 2016). However, such practices are not the domain of the human alone. The rhesus macaque too constructs niches, at times by inventing affects. Macaques' modes of existence thus intermesh with how people relate to the city and have bearings on their experiences and lives or, as others have argued, in urban Indian contexts "monkeys are afforded social and material space in human worlds and humans are afforded roles in monkey worlds" (Solomon, 2015, p.24). Microspaces are generated through bodily proximities and kinship, be it with macaques or other nonhumans, including gods, demons and celestial bodies. Yet, the Hanumān Temple is a stratified space. A large cohort of destitute people, who come to its premises in search of alms, are barred from the temple's sanctum sanctorum on caste and religious grounds. Dwelling is therefore not settled or smooth: it is marked by asymmetry and fraught by the politics of who is allowed in and who is not. Whilst macaques can be deified, people from marginalised castes are vilified and, in formal spaces of healthcare, processes of exclusion also act upon human-macaque proximities.

4. Majoritarian spaces of healthcare

Encounters with urban macaques are not always therapeutic. They can be rambunctious, laden with frictions. In Delhi, monkey bites are among the most common animal bites, but the problem is not limited to physical injuries. "Monkeys roam around wards at free will," says Gaurav, a security guard employed at Delhi's BCG Hospital, "they snatch food from people, particularly women and older patients. Quite recently, the bag of a sixty-year-old man was snatched whilst he was having lunch outside the Department of Geriatrics." Having seen bananas in his bag, the macaques grabbed it and clambered up a tree: "The man came running to us, asking for help, as it contained his medical reports." This set off a whole suite of problems: "Doctors were unable to gauge what his prescriptions were and scheduled a diagnosis once again. Waiting lists in this hospital are very long and this patient had to wait for months before he could be seen and issued a fresh set of prescriptions."

Macaques have apparently disrupted the routine functioning of this hospital since the early 1990s. According to one informant, "Monkeys are actually here because of the hospital. As BCG Hospital is also a research institute, the animals were brought in for research and later set free. They never left the premises and have habituated themselves with the surroundings." Whether laboratories were indeed the origins of the entire BCG rhesus macaque population is a contentious point. There has, however, been a substantial increase in macaque numbers within the premises from the 40 to 45 individuals counted in the 1990s. Macaques,

hospital staff argue, have become increasingly bold. "Earlier they either snatched eatables or, at the most, overturned dustbins," says a doctor, "but nowadays there are frequent incidents of monkeys stealing mobile phones. This causes mayhem as patients are unable to call relatives." Doctors are worried that the rhesus macaque has become a threat to the delivery of healthcare: "There have been several incidents of surgeries being stalled. A few days ago, monkeys climbed the oxygen tank near the dental clinic and shook the pipes carrying oxygen to the hospital. As a result, the entire area was covered in smoke." Furthermore, a large number of elderly patients at the hospital are particularly vulnerable: "There have been numerous falls and injuries as these patients are not agile and cannot ward off the monkeys, creating a further burden on the hospital, which is already at bursting point."

Incidents of doctors, nurses, hospital staff, patients and attendants being bitten are frequent. The president of the Doctor's Union at the hospital said that the scale of the issue was such that the doctors and trainee students were psychologically affected. "There are about a hundred bites every month on the campus," remarked a trainee doctor. "In fact, I was bitten by two monkeys – on the arm and leg – one day, completely unprovoked, when I was leaving the hospital in the morning." Doctors and other hospital staff feel unsafe: "The scale of phobia has increased in the last five years, and mental trauma will increase in the future". The doctor went on to describe how health professionals staying in the premises are afraid to venture out: "Monkeys are so aggressive that our doctors are even scared of responding to medical emergencies". Hospital authorities have, in fact, made a number of distressing appeals to the government asking for help, on the grounds that the macaques were 'a continuous threat' and that in order to deliver critical healthcare services, staff needed 'a safe environment to work'.

Macaques inhabit this medicalised space with and against the grain of design and, as in the Hanumān Temple, food mediates its ecology. "Monkeys not only survive here, they thrive", says Akram, a contract worker employed by the hospital to keep its campus free of macaques: "There is quite a bit of food available here, and the animals obtain this either by snatching or rummaging in dustbins. They have come to understand the food pattern of the campus really well. They synchronise their activities, especially during lunchtime and evening hours". Hospital authorities state they have begun to receive complaints from people living in nearby neighbourhoods: "We get angry phone calls from people saying their children cannot go out to play and that the BCG is responsible for the monkey menace in their area." The problem, authorities state, has been aggravated by people feeding macaques: "There are a number of people who will offer food to the animals, and over time, this has made the animals in the locality exceptionally bold. Although we cannot stop people from eating on the campus – many people come from faraway places, often hungry and tired, and bring home-cooked food for their sick relatives – but we have put up a number of notices telling patients not to feed monkeys."

Provisioning of nonhumans, including macaques, generate deep feelings of wellbeing. Rekha, a married woman in her forties from Bihar state, had come to the BCG Hospital with her family for the treatment of her fifteen-year-old son. The subsequent diagnosis of a necessary surgery came as a shock to the couple. Whilst agreeing to go ahead with the surgery, they searched for alternative explanations for their son's condition. They wondered about the possibility of "a fault in how we conducted rituals" or if it was the influence of some "witch" in their neighbourhood that led to his predicament. They continued worshipping Hanumān whilst their son underwent treatment, for he is the deity that mediates relations with spirits and the nether world. The intensity of their devotion increased, and Rekha and her husband started feeding macaques on the hospital grounds: "We were unable to go to a temple as we were distressed and had no time. So, we gave bananas and other food to the monkeys, as they are an incarnation of Hanumān." For Rekha and countless other families, the medicalised and culturally imported vocabulary of mental wellbeing fails to address material emotions, which are experientially generated from everyday life and that are integral to the cosmologies of the people they address (Jadhav, 1995).

Macaque presence in the BCG Hospital is thus the product of an environ*mental* ecology, the outcome of a suite of relations between metabolic intensities, a turn to the supernatural in times of distress, and the animals' own proclivities. But unlike the Hanumān temple, macaques and their capacities to affect are ignored by the majoritarian sciences and practices of healthcare. Much of the administration's efforts are aimed at creating macaque-free premises, to render it immune from affective contagion. These strategies reinforce a hierarchy of knowledges where medical vocabulary trumps urban vernaculars, although these strategies meet with a number of challenges. In some instances, patients and their attendants carve out other spaces of wellbeing by feeding macaques in the hospital premises, witnessed in the case of Rekha and her efforts to deal with distress. Macaques too overtake human action and majoritarian assembly. The hospital hired a monkey-catcher to trap and relocate macaques from their premises. Twenty-odd macaques were taken to the Asola Bhatti sanctuary. "However, monkeys from surrounding areas have now taken their place", remarks a senior doctor, "What should we do? As per law, we cannot rid the hospital of monkeys, and unless they leave on their own, controlling them is next to impossible." He concedes that majoritarian imperatives, treating macaques as mute bodies upon which state control and clinical power can work upon unchallenged, loses grip in practice: "Monkeys have exploited science in engaging with us but we are using religion as the guidelines of our engagement. We need to adapt."

5. Rethinking urban wellbeing

Tracking urban rhythms, encounters and frictions from the ground opens up the lived city to its multiplicity and paves ways for articulating a thicker ontology of urban mental health. Microspaces of wellbeing – spatial formations, generated through small acts and with other-than-human company – are ecological as they involve a suite of relations and kinships, be they with macaques, astral bodies or supernatural deities, where dwelling is simultaneously grounded and celestial, and folk vocabulary is iterative and creolised. Microspaces, however, are trailed by the majoritarian logics of urban planning and assembly. These logics, working through capitalist aesthetics of the global city (Baviskar, 2019), relegate macaques to an inferior position in a pre-given binary. Their sentient inhabitation of the world is inverted to one of occupation, enabling macaques to be subjected to all kinds of socio-spatial expulsions from the metropolis. This is not to say that microspaces are necessarily innocent: whilst they generate a scaffolding for wellbeing, they are also marked by their own striations of caste and class exploitation. For instance, people begging for alms outside the Hanumān Temple are excluded from participating in the rituals inside.

Microspaces however, point to an urban wellbeing that is enmeshed in ecological relations – an environ*mental* ecology – where bodies *learn to become porous to affect*. It implies a certain radical openness to other bodies and cultivating proximities with other-than-human beings, which dwell in the *same* world and co-constitute the metropolis (Solomon, 2015). Quotidian practices, including the feeding of macaques, are means through which those immiserated by urban life find means of coping with culturally crafted folk theories of misfortune in popular Hindu mythology. Thus, reward, penance and forgiveness are sought from, and through, macaques. They entail affective exchanges that are predicated upon culturally scripted grammar to heal kinship ruptures, give solace amidst adversity and generate hope. In contrast, clinical logic seeks to render medical space immune from such affective contagion. At the heart of these logics is a *panlexicon*, which, as an extension of the panopticon (Foucault, 1979), is a surveillant, biopolitical and global vocabulary, sanitised of everyday affects that frames and codifies distress into symptoms. The panlexicon distils affect into pre-given, culturally invalid, psychiatric diagnostic categories and edits out vernacular enunciations of distress. Affective relations with macaques are thus viewed as superstitious and toxic through biomedical lenses

(Nadal, 2020). This panlexicon is deeply embedded within the same majoritarian logics that state agencies deploy to quell the city's 'monkey menace'.

Our endeavour of tracking mental health ecologically is serious in its attempts to not just examine health in the register of the local (Das and Das, 2007), but also to attend to the other-than-human in all its complexity. This includes examining how the urban is rendered habitable through 'niching' (Bister et al., 2016), by both people *and macaques*. What is vital here is that niche construction operates through the affects macaques spark in people as much as it proceeds through practices of provisioning, the small acts of those who feed animals in spite of state dictate or the rules of hospital governance (also see Authors et al. forthcoming). Quotidian practices, through which people keep adversity at bay, and the remedies they seek to deal with misfortune, have bearings on the ecologies of macaques, forging commensal behaviour and enabling them to proliferate within anthropogenic environments. Such mutually constructed affects pose radically new ways to think of niche construction theory, which argues that organisms can modify their own environments through metabolic, physiological and behavioural registers and, consequently, influence the direction and the rate of evolution (Odling-Smee et al., 2003), their own and those of others, for these are not dissociated from environ*mental* ecologies. In a similar vein, the becoming-urban of macaques via enmeshments with how human subjectivities are modulated, be it through textured orientations to place or the more-than-human kinships that are fabricated, opens up new ways of understanding the constitution of urban natures and animals' adaptations to urban form (Francis and Chadwick, 2013).

Macaque world-making activities that proceed along and against the grain of governance and design, in turn, have bearings upon medicalised spaces. Their disruption of the functioning of the hospital, including at times the delivery of care, cannot be simply glossed over or dismissed as a mere epiphenomenon not worthy of serious inquiry. Hospital authorities, doctors and staff are affected by macaques and view their presence to be 'a continuous threat', reconfiguring macaques into unhealthy bodies and, therefore, denying other therapeutic affects they are capable of, a voice or space. The situation is so severe that health workers claim their mental health is being affected, with some even developing phobias. Yet, it would be problematic to posit macaques' aggressive behaviour as solely 'natural'. As a doctor told us: "the temple is a harmonious zone because there is no antagonism toward monkeys. At the hospital, people want to get rid of them, whilst monkeys try and get whatever they can." Macaques are experts at reading bodies and much of their behavioural dispositions are the outcome of emulation and practice shaped by the milieu in which they are socialised (Sinha and Vijaykrishnan, 2017). By editing out affective contagion and critical affective bonds, fostered with macaques as intermediaries to supernatural worlds, and seeking to police human-macaque entanglements through a narrow politics of biomedical aesthetics, majoritarian logics of healthcare generate a landscape marked by antagonism. If macaques are bold and aggressive, this is, at least in part, due to the ways in which toxic relations are internalised and reproduced by both people and animals. Although there are moments when patients or attendants challenge binary, medicalised spaces – witnessed, for instance, when they resort to feeding macaques in hospital premises – these microspaces of wellbeing are ephemeral and shunned by hospital authorities.

But why do health workers and doctors not engage with ecological currents professionally? Hospital staff and authorities cede to macaque agency and their capacity to overtake human action. They are aware that simply expelling animals through capture and relocation do not actually render their premises macaque-free. If one were to turn the doctor's view about macaques 'exploiting science' whilst people resort to 'religion as guidelines of engagement' on its head to ask what might vernacular practices and, for that matter, sentient ethologies of macaques tell us about wellbeing, a different set of obligations and reciprocities might come to the fore. Rather than operating from a hylomorphic model that takes macaques to be inert, manipulable bodies

upon which any form of organisation can be imposed, one might reconsider how bodies learn to become porous to affect and what resulting reciprocities they might ignite. Such interventions cannot be transformed into norms. Rather, they demand being open to who or what constitutes the public in public mental health (Jadhav et al., 2015), where more-than-human relations and kinships are part and parcel of lived urban collectives and their everyday experiences.

6. Mental health ecologies

Mental health ecologies bring to relief the ways in which subjectivity is managed through urban dwelling that an emphasis on medicalised affects and emotions otherwise render invisible (Richaud and Amin, 2020). This paper's novel ethno-ethological methodology and nascent connections it draws between urban studies, ethology and psychiatry foregrounds a thicker ontology of urban mental health that grasps the city in its lived multiplicity and through its more-than-human relations (Barua and Sinha, 2017; Gandhi, 2012; Nadal, 2020; Solomon, 2015; Srinivasan et al., 2019). In this iteration, the urban is constituted by the other-than-human from the very outset, where the latter extends from animal life to astral bodies and supernatural currents that animate the modernist city. The modes of dwelling and forms of interiority we postulate is partly terrestrial and in part celestial, infected by the beastly topographies of animal life. Questions of who or what forms part of a mental health ecology is thus opened to a suite of otherwise unknown interlocutors that urban denizens have to learn to live with. Cities are indeed "orchestrated by human *and* nonhuman means" (Amin and Thrift, 2017, p.64), in that their assemblages and social architecture is knotted with the lives of other-than-humans, be they animals, spirits or other entities. This paper pushes this orchestration further to provide a radical account of how metropolitan mental life is configured.

If other-than-human currents bring a different awareness of urbanicity than may be familiar in scholarship on urban mental health (Fitzgerald et al., 2019), an attention to the intermeshing of ecology and human subjectivity pushes the boundaries of more-than-human and posthumanist modes of inquiry in geography and the cognate social sciences. This includes posthumanist engagements with health, where the emphasis has largely remained on the bodily and the corporeal rather than on the mental (Andrews, 2019; Nadal, 2020; but see: Gorman, 2019; Jadhav and Barua, 2012). Equally, by exploring ecological relations ethnographically, we address calls for moving from animal geographies – the human orderings of animal worlds – to *animals'* geographies and *their* lifeworlds (Buller, 2014), including how the urban might be understood from the perspective of animal life (Barua and Sinha, 2017). Of particular importance is the concept of affective niche construction, which not only show how macaques spatialise along and against the grain of the built environment, but opens up novel possibilities for the ecological sciences to comprehend evolution through affect. A mental health ecology, then, is not just about how animals have bearings on human life, but encapsulates how transspecies affects configure ecologies of urban animals.

The implications of our work for mental health are manifold. Ecologies of mental health –which we term environ*mental* ecologies – provide avenues to understand the everyday practices that value affect generated between humans and other-than-humans and through which people render the urban habitable in the face of adversity and immiseration. These means can be unexpected or even erased by the standardised and sanitised panlexicon of the clinic and global mental health movements, which often provide affective privilege to universal solutions alone and focus on their scalability (Eaton et al., 2011). An ecological problematisation of mental health thus strikes at the heart of this surveillant panlexicon and a watered-down version of Western psychiatry, including its theories and formulations of affective morbidity. In keeping with extant critiques (Jadhav et al., 1999; Lynch, 1990), this exposes their limitations in addressing vernacular vocabularies of distress and in grasping how an entourage of bodies, entities

and forces can shape affective wellbeing (Jadhav and Barua, 2012; Jadhav et al., 2015).

An ecology of mental health, we argue, thus entails committing to a suite of relations, affects and events that configure interiority and wellbeing in the everyday. Translating this into practice, especially in a milieu where mental health professionals wield significant epistemic authority, is not an easy task, although a few basics could be put in place. Our first suggestion would be epistemic: to develop a culturally and ecologically sensitive assessment and diagnostic vocabulary that recognises relations between practices, whether medical or vernacular, rather than a hierarchy of knowledges. Secondly, there is considerable scope for rethinking training and routine clinical practice, and how these might be sensitised to critical human-nonhuman healing meshworks of the metropolis. This might allow vital political economical vectors of distress to be incorporated during routine clinical assessment and management through the deployment of cultural formulations – an approach that encourages subjects to systematically narrate their distress through their own cultural vocabulary of suffering, not on our terms (Kannuri and Jadhav, 2018). The latter are easily glossed over in the clamour for scalability and global mental health models. Thirdly, new conversations with currently unconnected fields – including ethology and wildlife ecology – might generate dividends in order to create a more habitable and less hostile milieu, for both humans and other-than-humans. None of these pathways are easy to achieve, but demand recognition that no one body of practice can claim epistemic privilege and capture in advance what the solutions are.

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