**Structuring the Emotional Landscape of Climate Change Migration: Towards Climate Mobilities in Geography**

The literature on climate migration is increasingly concerned with linking the natural-environmental and socio-cultural dimensions of risk response. However, the epistemological disjuncture between “objective” and subjective accounts of the environment is an impediment. In particular, despite clear evidence of mutual relevance, work on the emotional landscape of climate change has remained separate from more systematic analyses. Aiming to resolve this, this paper uses the case of a Cambodian beggar to show how recent developments across three fields have laid the groundwork for the structural and emotional dimensions of climate change response to be engaged with under a coherent theoretical rubric.

**Introduction**

‘I previously did wage labouring, like transplanting rice. [But] because I am a wage labourer, now it is difficult, because now everybody broadcasts; they don’t transplant any more. And even for harvesting, they use a harvester [machine], so there is no more work for me. Now those people [who used to do wage labour] migrate outside [of the village] for work, like to a lotus farm...[People who don’t leave] just do their own farming. Before they did their own farming and worked for others as well, but now they just do their own. Generally, they all have land. It’s only me that doesn’t...No others beg. Just me...

...They don’t criticise the other migrants. That kind of work nobody criticises. I don’t know why, but if you work for somebody’s farm they will lead you and tell you what to do, whilst if you come to beg, then they look down on you...people criticise me. They say it’s not good walking along the road and asking for money, but I don’t care. The neighbours around my house [say this]. People look down on me, but it’s okay. Now I am very lowly. I don’t have any children, I don’t have anything, I’m very poor. [But] when I get some money, I will offer some money to the monks and wish that the next life will not be the same as this life

 (Yay Mom, 87, Female Beggar from Prey Veng Province, Cambodia, 15/06/2017).

The above testimony, related by an elderly beggar on the streets of Phnom Penh, presents a complex picture of mobility. Marketisation and mechanisation of rural areas, built on the expansion of microfinance and the modern sector, has accompanied a process of ecological change which made Cambodia the world’s second most climate vulnerable country in 2014 (Kreft et al., 2014). Over time, the rising cost of farming inputs and diminishing predictability of annual rainfall patterns (Parsons and Lawreniuk, 2017) brought about by these trends has rendered smallholder agriculture less and less viable, making migration a ubiquitous feature of rural life. It takes numerous forms, each of which is interlaced with normative judgements, yet in reality little choice exists. To whom the climate brings praise or denigration; inclusion or isolation, depends largely upon structural endowments through which the impact of the climate is articulated.

For people like Yay Mom, such complex structural and normative interactions (a term used here to denote behavioural norms, rather than value judgments as such) are the everyday reality of the changing environment. Yet in theoretical terms, climate change, emotions and norms of behaviour remain uneasy bedfellows. Though grounded axiomatically in human behaviour, environmental change remains an ‘abstract, long-term phenomenon of a statistical character’ (Höijer, 2010: 717). Its emotional, subjective, dimensions remain inherently external; part of ‘the cultural politics of climate change’ (O’Niell and Smith, 2013: 73) but distinct from the process itself. Thus, both the use of overtly negative terminology by political figures, who have referred to climate migrants as “marauding” and “swarms” in recent years (see O’Hagan, 2015), and the supposedly neutral categorisation of “climate refugees” by academics reflects an incorporation of whole populations into the lexicon of the natural world. This process dehumanises its subjects: agency disappears, to be replaced by continental-scale verdency, rainfall indexes and coastal displacement projections. Consequently, despite growing interest in the concept of the “anthropocene” (see Crutzen, 2006), humans themselves continue to play a rather limited role in current analyses of the human-environmental nexus.

Nevertheless, this consensus is weakening. As is increasingly recognised, science and its socio-political context are tightly intertwined (Donovan, 2017). Far from being universally “objective”, the frameworks and systems that dominate natural scientific debate on the climate are in reality ‘inseparable from the cultural expressions that give them meaning’ (Offen, 2014: 476). Consequently, to investigate how the climate drives human behaviour without framing that inquiry in terms of the ‘newly created discourses and practices [that] are integral parts of each localized phenomenon of climate change’ (Pascht and Dürr, 2017: 2) equates to investigating one phenomenon with tools intended for another. However, rooted as conventional methods are in these implicit Cartesian dualisms, subjective responses to the environment are ill suited to interpretation by climate scientists (Offen, 2014). Just as ‘ice is not just ice’ (Carey et al., 2015: 787), so too movement is not just movement: mobilities, even climate mobilities, are only partially explicable without reference to their emotional context.

This recognition is not without difficulty, however, and scholars have struggled, in recent years, to link the subjective, lived experience of climate change migration to the multi-scalar structures – understood here as durable but mobile arrangements of defined components – through which it manifests. Attempts to draw closer inferences have seen the competing ‘epistemologies of social and physical sciences become problematic’ (Donovan, 2017: 58) and ‘there are continuing tensions between normative and analytical stances on resilience’ (Brown, 2014: 107). Yet the material exists for a more satisfying reconciliation. Seeking to circumvent the conceptual disjuncture between climate modelling and the lived experience of migration in response to the climate, this paper highlights, first, the epistemological tension between these two data sources; second, the need to resolve this tension through a re-prioritising of quantitative and qualitative data; and third, the potential for the cross-fertilisation of ideas and data between multiple fields examining mobility and the environment.

Specifically, this paper explores a recent thematic convergence between the mobilities and translocality literatures, arguing that efforts to reconcile subjective and more structured conceptions of the human-environmental nexus have brought the two literatures to the point of a productive conceptual collaboration, rooted in multi-scalarity and normative dynamism. As argued here, this has the potential to encourage closer discourse between mobility studies and the disciplines (Merriman, 2015) and thereby to elucidate underexplored, but highly pertinent, elements of social response to environmental change.

In doing so, the paper uses the testimony of a single Cambodian beggar, Yay Mom, to exemplify how the emerging perspective of “climate mobilities” may serve to solidify this area of overlap into a durable area of mutual inquiry. In doing so, the use of a single account is key. By restricting the experience of the climate to a single life story, the intention is to emphasise the idiosyncratic manner in which climate change is experienced. Yay Mom is, by her own admission, unique; the only beggar in the village. Yet that contextual uniqueness does not decrease her relevance. Rather, it emphasizes a key message of this paper: that climate change mobility is not an aggregable phenomenon, but one which must be interpreted and built upwards from individual accounts.

This case will be made in four parts. First, it will examine how explorations of the role of the climate in migration have evolved over time in geography (and elsewhere), before highlighting the recent upturn in attention towards the social and cultural dimensions of climate change. Second, it will delineate the development, within the mobilities literature, of intimate and subjectively attuned interpretations of environmental change, before, third, proceeding to outline the perspective offered by translocal conceptions in recent years. Having highlighted the convergence in the translocality and mobilities literatures, the final section of the paper will make the case for greater collaboration between the two, demonstrating how their cross-pollination has already laid the groundwork for a rich new area of study. In this way, the paper will not only encourage productive collaboration between two dynamic fields within geography, but in doing so place human geographic conceptions of mobility and its subjective dimensions at the forefront of social scientific conceptions of the changing climate.

**2. Migration studies and the Environment: In Search of a New Perspective**

Though often viewed as a novel field of inquiry, scholarly work linking population movement to environmental factors has a lengthy history, dating to the earliest systematic migration studies laid down by Ravenstein in 1889 (Piguet, 2010: 3). During the early 20th century, it reached a high point of exposure, as its association with the Environmental Determinist school (see Semple, 1911) – which viewed the natural environment as ‘responsible for virtually all human development’ (Hardin, 2009) – saw migration-environmental linkages briefly explored in some depth. However, many of these early themes were abandoned over the course of subsequent decades, as concerns over eurocentrism and racism (Hardin, 2009) saw the political-economic perspective offered by post-colonial geographies (Tolia-Kelly, 2004; Dwyer, 2000; Chamberlain, 1997) come to the fore.

Decoupled in this way from the dominance of climactic factors, migration studies came increasingly under the influence of economic models (e.g. Todaro and Smith, 1970; Rostow, 1960; Lewis, 1954), which continued to exert a strong influence even as migration-environmental linkages moved once more into focus during the latter part of the decade. The use of the term ‘environmental refugee’ in early re-examinations of the climate-migration nexus (e.g. El-Hinnawi, 1985; Brown, 1976) is a key example of this, reflecting the perceived lack of balance in the migrant equation; i.e., they are refugees because their movement was “pushed” but not sufficiently “pulled” to constitute an economic decision.

These assumptions have proved enduring, as a macroscopic, largely mono-factoral, approach to the study of climate migration has dominated the field ever since. Debates have frequently adopted a binary character, as exhibited in the lengthy discussions over whether rainfall – or by proxy verdency – is positively correlated with migration prevalence. In this case, Barrios et al. (2006), Van der Geest (2010) and Kniveton et al. (2012) draw positive correlations, whilst Henry (2003) and Smith (2001) find less convincing linkages. Yet single issue studies are the norm, rather than the exception in the analysis of climate migration. The literature examining sea level rises and migration displays a similar logic for example, with McGranhan et al. (2007), Anthoff et al. (2006) and IPCC (2007), modeling the positive correlations they discern onto future rises in order to predict the scale and distribution of future global mobility.

Certain studies, such as Black et al. (2011), have sought to combine figures from single factor approaches such as these. Nevertheless, ‘the main question addressed by the literature is whether there is or is not migration related to climate change, about which there is general agreement on a positive answer’ (Gomez, 2013: 5). Substantial concerns therefore persist as to the depth and variety of conclusions derivable from an approach that remains fragmented and uneven (Piguet, 2011). Indeed, as critics argue, the field is undermined by ‘a cacophony of terms and labels’ (Nicholson, 2014: 152), necessitating a shift away from its current concern with sampling issues – or entitation – and above all ‘an abandonment of the futile search for the ultimate causes of migration brought about by climate change’ (Faist and Schade, 2013: 4).

Responding to these criticisms, researchers have increasingly sought to move beyond narrow causal logic to address more complex, systematic linkages between the climate and migration. This has resulted in ‘a wave of new social science research into these hitherto under-emphasized cultural dimensions of climate change’ (Adger et al., 2013: 112). Indeed, for many, socio-cultural concerns have moved to the forefront of the climate migration agenda (McCarthy et al., 2014: 665), as the complex structures by which environmental pressures are mediated and translated into action – or, more specifically, movement – come to be appreciated for the scale of their influence.

This perspective has become especially influential in the adaption literature, leading various authors (Brace and Geohegan, 2010; Agrawal, 1995) to call for a greater role for non-Western knowledge systems as a means to engage directly with the ‘communities, place and systems’ that experience changes to the environment (Bardsley and Wiseman, 2012: 713). Though valuable, however, these studies are hampered by the inheritance of deterministic reasoning from their less culturally nuanced counterparts. Rather than viewing the social and physical environment on the same epistemological platform – i.e. interpreting both “Western scientific” and “local, subjective” conceptions of the environment as equally situated in place – the latter is invariably assigned a subordinate role. Culture in such analyses is therefore left to be inserted as a black box variable between measurable migratory and environmental variables; an explanatory tool for discrepancies in ‘objective’ calculation.

As a result of this imbalance, ‘unreflexive approaches that barely consider the social contexts and conditions of migration are still dominant in the debate’ (Faist and Schade, 2013: 4). Yet as Yay Mom’s testimony demonstrates, mobility can be no more easily separated from its cultural than its environmental context. Changing ecology manifests through the lens of resources at multiple scales, but these resources are not objective entities for individuals. Rather, they are assessed ‘in the context of our always intersubjective relations’ (Thien, 2005: 450); their value negotiated between individuals as part of a mutually constructive discourse. The subjective experience of climate change is therefore not rising temperatures or the growing unpredictability of rainfall, but these phenomena as they are contextually mediated: as migration, or stasis; social descent or elevation.

Viewed thus, denigration and alienation are as much a result of the changing climate as economic adaptation, but whilst a scattering of scholars have considered the emotional and behavioural dimensions of climate change (e.g. Gifford, 2011; Gorman-Murray, 2010), any efforts to explore these areas have invariably lacked sensitivity to both mobility and the agency it entails. Dominated as climate science has been by Eurocentric (Pascht and Dürr, 2017) and ‘masculinist discourses’ (Carey et al., 2015: 772), the transition from viewing environmental change as ‘an abstract statistical index’ towards a recognition that its importance is highly subjective (Offen, 2014: 479) has been a slow one. Indeed, in many cases, causal reasoning has predominated to the extent that ‘one wonders whether current approaches to climate change adaptation represent a new form of environmental determinism’ (O’Brien, 2012: 668). As outlined in the next section, only the mobilities literature has thus far offered genuine progress in this respect.

**3. Mobilities and the Environment**

The “mobilities turn” (Sheller and Urry, 2006; Hannam et al., 2006) has had a profound impact on geography. The long held, though largely implicit, conception of passengers as ‘anonymised parcels of flesh’ (Thrift, 1996: 266), has been usurped by a new focus on the subjective and relational nature of movement. Scholars now adopt mobile perspectives on a range of issues, as the focus on new forms of mobile interaction that underpinned the rise of the mobilities literature (Urry, 2012; Urry, 2007) has extended backwards in time (Löfgren, 2008) and outwards in scope, to incorporate both stillness (Cresswell, 2012) and ‘the mundane forms of mobility and emotionality that are easily overlooked, taken for granted or may seem hard to verbalize’ (Werner, 2015: 169).

Nevertheless, forewarned by Peter Adey’s cautionary assertion (2006: 75), during the earliest days of the turn, that ‘if mobilities is everything, then it is nothing’, the expansion of the literature has been purposive, rather than exploratory. Mobilities has sought to define not only what it is – crudely, a lens to explore meaning across different scales of movement – but to an even greater extent what it is not, taking pains to craft a novel point of entry in each theme or context it approaches. The departure from a priori structures is often the basis for further analysis, with existing systematic interpretations tending to be avoided or subordinated on the basis that mobility is ‘as much about meaning as it is about mappable and calculable movement’ (Cresswell, 2011: 552).

The arrival of a perspective whose priority is the subjective dimensions of movement is both welcome and necessary; a reaction to ‘the dominance of economic and political analyses of migration, which tend to downplay emotional factors or overlook them altogether’ (Boccagni and Baldassar, 2015: 73). Since their emergence, moreover, such intimate analyses have thrived, becoming central to the landscape of mobility. Thematic foci on passenger mobilities (Bissell, 2010; Löfgren, 2008), transconnectivity (King-O’Riain, 2015), elite migration (Kenway and Fahey, 2014; Walsh, 2009), and love and sexuality (Mai and King, 2009; Gorman-Murray, 2009), have all explored, over-archingly, how ‘emotions connect individuals to changing human and non-human environments, shaping their engagement with the world’ (Svasek, 2010: 876). By ‘narrating lives in (e)motion’ (Christou, 2011), they have contributed to the ‘revisioning of emotion as part of an intersubjective process’ (Thien, 2005: 453), both shaped by and constitutive of context.

Discussed in the realm of theory, these conceptual developments may appear abstract, but their practical relevance is huge. Objectivity and emotion are far from mutually exclusive in the real world and the interpretation of something as concrete and knowable as a road – so often an economic lifeline in the developing world – is a key example of this. As shown in Yay Mom’s testimony, the meaning of the mobility it facilitates is articulated through the lens of social values and structural endowments to become a source of shame and criticism for some. As she explains, “they don’t criticize the other migrants…but if you come to beg, they look down on you”. Yet it also goes further. The repeated motif of self-distancing, expressed in “I don’t care” and “but it’s okay”, suggests an abdication of interest in the narrative conventions that structure communities, whilst the final, explicit appeal to spiritual action highlights an ongoing, or deepened interest in another. Mobility, in other words, is shown to play an active role in the use and interpretation of norms.

Whether retained in this intimate context or scaled to a larger one, the crux of this perspective is the co-constitution of movement and the norms that govern it; a capability conspicuously absent from much of the migration literature. Nevertheless, the positionality of the mobilities turn (Clough and Halley, 2008) has brought shortcomings also. Though inherently intersubjective, emotional mobilities have, with some exceptions (see McQuoid and Dijst, 2012 on the temporal mobilities of poverty; and Nairn and Higgins 2011 on the mobilities of neoliberal school reform) tended to be explored at the expense of the more structural perspective on social positioning evident across emotional geographies more generally (Holt et al., 2013; Hochschild, 1996).

As various authors (D’Andrea et al., 2011; Manderscheid 2014; Merriman 2014) have argued, this disjuncture with the socio-structural context of mobility has undermined their efficacy. Never wholly subjective, ‘mobility is a resource that is differentially accessed’ and hence political in nature (Cresswell, 2010: 21). Mobility and immobility are defined both by each other and the socio-economic milieu in which they happen: an act as simple as walking in a group may symbolize solidarity where undertaken with placards and slogans; piety, as shown by millions each year at Hajj; or persecution, as suffuses the images of the Rohingya people’s flight. Without this context, the meaning of the movement they signify is lost.

Nevertheless, its’ structured and power-laden dimensions have – despite efforts to introduce these elements as ‘armatures’ around which subjectivities agglomerate (Jensen, 2013) – often proved difficult to reconcile with the subjective experiences that they engender, resulting in a lack of clarity over how the same structures produce mobility and immobility concurrently (Jensen 2011). Indeed, that mobility can often appear to be a zero sum game – with desirable movement creating and defining its negative counterpart – is difficult to reconcile with the inter-relational, often phenomenological accounts that characterize much of the field.

In analysing the environment, moreover, this characteristic becomes especially notable. A dearth of social scientific – and to an even greater degree emotional and subjective – studies has seen academic commentary dominated by ‘complex, highly specialized “big science” [which] has created its own set of problems for the politics of climate change’ (Szerzynski and Urry, 2010: 2), leaving its social dimension, though ‘central…pretty well invisible’ (Szerzynski and Urry, 2010: 3). Indeed:

‘This has been a ‘science first’ transformation of understanding of what is deemed to be *global* climate change. Apart from economics, the social sciences have been nowhere – barely even ‘Johnny-come-latelies’ (Szerzynski and Urry, 2010: 3)

Whilst studies of emergency mobilities (Adey, 2016; Cook and Butz, 2016; Jensen, 2011; Blitz, 2011) have sought to develop closer linkages between the incidence of disasters and mobility that surround them, it has yet to satisfactorily address the co-constitution of structural inequalities and intersubjective norms. Yet this is to neglect a vital dimension of disaster response. As Cook and Butz (2016) and Adey (2016) note, an analysis of disaster that is purely incidental fails to capture much of its character. Responses to climactic events do not occur in a vacuum, but are ‘socially embedded and constructed, dependent upon inadequate and unequal societies, or structural failings in economies and politics’ that shape disaster mobilities long before any such event manifests (Adey, 2016: 41). Disasters, otherwise put, have a context and history that offers much to their analysis.

Thus, by exploring translocal agriculture (Andrzejeska and Rye, 2012), rubber cultivation (Baird and Vue, 2017), and fisheries decline (Stodart and Sodero, 2015), as well as post-colonial responses to such shifting environments (Tolia-Kelly, 2008), mobilities scholars have sought to deepen understanding of the ‘motion and emotion, power difference and identifications with cultures of landscape’ that shape disaster mobilities (Tolia-Kelly, 2008: 117). Yet any such efforts present only an approximate interpretation. Such is the role of socio-economic factors in this regard that the ‘lived experiences [of climate change], even when we try to make sense of them collectively, are extremely diverse’ (Abott and Wilson (2015: 1). Outside of the prevalent discourse of “climate refugees”, after all, the changing climate creates winners as well as losers; immobility as well as mobility; and deepening as well as loosening ties to the land.

Structural components, in particular the multi-scalar economic systems that articulate ecology, are key to understanding this subjective heterogeneity (Wilbanks and Kates, 1999). Indeed, ‘in a world where social, economic, political, technological, cultural, and environmental problems are intertwined in a hyper-complex system’ (O’Brien, 2013: 591), interpreting the nexus of climate and mobilities necessitates appealing to these complex, overlapping structures. Emotional responses to movement are as diverse as those who experience them, yet context is, as always, key. From destitution, via inconvenience to opportunity, circumstance is the topography that undergirds the emotional landscape of climate change.

Conceptualising individual perspectives in relation to structures of power and wealth – from the global to the local – is therefore vital. Yet to do so meaningfully, a bridge between structural and subjective interpretations is needed; ‘an approach that works through both mobility studies, and other areas of academic work more attuned to the politics of emergency’ (Adey, 2016: 35). Whilst previous such dialogues have proved problematic (Merriman, 2015), recent development within the translocality literature have provided the common conceptual ground that was previously lacking. This burgeoning field offers what that on climate migration has thus far failed to provide: a conception of ‘economic sustainability and healthy livelihoods’ fit also to ‘master the transfer of cultural values and social structures’ (Hofmann, 2014: 40).

**4. Translocality**

*4.1 Transecting Boundaries: Three Strands of the Translocality Literature*

Emerging from a succession of studies investigating transnational livelihoods from the late 1990s onwards (Waldinger and Fitzgerald, 2004; Bebbington and Batterbury, 2001; Castells 2000; Appadurai, 1996; Hannerz 1996; Glick-Schiller, 1992), the contemporary translocality literature reflects a field concerned with exploring connectedness in place of division. Broadly defined as ‘a space where deterritorialized networks of transnational social relations take shape through migrant agencies’ (Brickell and Datta, 2011: 3), it seeks to move away from the ‘quasi-natural’ status of international borders (Gessing et al., 2014: 10) in the migration literature towards a more fluid and interlinked conception of space, positioning, and place. In a similar manner to the mobilities literature, therefore, translocality studies adopt an agency-oriented perspective (Porst, 2015) to express localities ‘as experienced by the actors involved’ (Long, 2008: 39), rather than predetermined geographic ontologies.

By emphasising the agentive nature of mobility in this way (Brickell and Datta, 2011; Oakes and Schein, 2006), translocal studies interrogate and work to reformulate ‘orthodox views of space as bounded and coherent territory’ (Collins, 2012: 318) in a manner increasingly familiar to human geographers. Yet beyond this undergirding mandate, the specifics of its approach vary substantially, with the literature broadly divisible into three camps: first, that concerned primarily with development and adaptation processes; secondly that which focuses on subjectivities, roles and positionality – especially in relation to gender and the household – and finally that which uses the analytical tools of translocality to explore human-environmental relations.

This first of these, oriented towards development and planning models (e.g. Zoomers et al., 2016; Islam and Herbeck, 2013; Zoomers and Westen, 2011; Steel et al., 2011; Long, 2008) is thematically and analytically linked to migration studies, sharing with it the core aim of exploring ‘the relationship between development and growing interconnectivity or the spatial expansion of socio-economic relations’ (Steel et al., 2011: 412). Nevertheless, directed as it is towards the analysis of development inputs (e.g. economic growth, environmental risk, urbanization) and outputs (e.g. changing consumption patterns, health outcomes and demography), it challenges the primacy of existing geographical boundaries, but not the lexicon of development underpinning the questions it informs. It therefore remains in many cases ‘heavily biased towards the representation of the migration experiences of ‘productive-aged’ males’ and has ‘largely left out the experiences of women, children, younger people and the elderly’ (Truong and Gasper, 2008: 287).

Responding to this lacuna, a second strand of the translocality literature has emerged in particular from micro-scale studies of migration and mobility conducted within both the feminist (e.g. Harker, 2009; Valentine, 2006; Valentine et al., 1998) and – more specifically – ‘left behind’ literatures (e.g. Yeoh and Huang, 2014; Toyota et al., 2007; Yeoh et al., 2002). These studies (Blumtritt, 2013; Rogaly and Thieme, 2012; Truong and Gasper, 2008; Conradson and Mckay, 2007) depart from their development oriented counterparts to investigate how social and economic remittance flows (see Lindlay, 2010) and circular migration patterns have produced new norms and roles within the household and ‘home’ (Brickell, 2012) and in doing so critique the ‘battlefield of knowledge’ (Truong and Gasper, 2008: 287) through which mobility is interpreted. Thus, they examine, in particular, ‘the complex forms of subjectivity and feeling that emerge through geographical mobility’ (Conradson and McKay, 2007: 167), using subjective accounts to deconstruct the meaning of far larger scalar flows.

Elements of this line of questioning are apparent in a third strand of translocality scholarship, discussed below. Stemming from the twin literatures on resilience (Berkes and Ross, 2013; Nelson and Finan, 2009; Cutter et al., 2008; Adger, 2000; Holling, 1973) and socio-ecological systems (Bourdier, 2015; Lambin and Meyfroidt, 2010; Walker et al., 2004; Folke et al., 2003; Berkes et al., 2000), this has aimed to move beyond bounded conceptions of human-environmental linkages (see e.g. Chandi et al., 2015; Smith et al., 2012), towards a perspective that uses translocality as a better means to conceptualise mobility in relation to climate change’ (Herbeck, 2015).

Thus, by circumventing the static, ‘container space’ perspective that continues to pervade the literature (Greiner and Sakdapolrak, 2013: 538), it rebalances the relationship between climate and mobility by allowing accounts of the climate *in place* to do more of the work of defining environmental phenomena. Mobility, from this perspective, should become less a dependent variable, and more a key lens through which to discern the environment itself.

*4.2 Translocality and the Culture-Environment Nexus*

In its departure from the ‘techno-fix solutions’ (de Wit, 2014: 63) offered by the development and adaptation literature, translocal scholarship concerned with culture-environmental relations offers much of potential use to the mobilities literature. In particular, by recognising the ‘evolving co-production of social order and natural order’ (Gessing et al., 2014: 5), it highlights the fallacy of models in which the terms and trajectories of environmental change are fixed. Nevertheless, despite an awareness that more research is needed to understand how these cultural dimensions interact with the environment (Greiner and Sakdapolrak, 2013), work to incorporate them has evolved predominantly in parallel to the development and adaptation literature (e.g. McCarthy et al., 2014; Leonard et al., 2013; Adger et al., 2013), leaving such efforts retaining many of the assumptions of economic migration models.

Indeed, as critics argue, many of this conceptual remodelling is superficial and ‘inadequate knowledge of cultural dimensions of ecosystems [continues to] challenge the ability of conservation professionals to include these considerations in their programs’ (Poe et al., 2014). Similarly, whilst the growing focus on risk perception as an intermediary factor in mobility (Blakie et al. 2014; Johnson and Covello, 2012; Adger, 2010; Brouwer et al., 2007; Pidgeon and Kasperson, 2003) has been useful, viewing risk response in terms of existing technical and economically focused frameworks ‘runs not only the risk of seriously underestimating the dynamics of these societies, but of analysing them only through the lens of one’s own culture’ (Bankoff, 2003: 3).

In response, calls to investigate environmental phenomena and the social structures that interpret them from the same epistemological platform (Cheshire, 2015; Milbourne and Kitchen, 2014) have grown in volume. Several studies have sought to provide a better integrated picture of the culture-environmental nexus (Naumann and Greiner, 2016; Naess, 2013; Greiner, 2011; 2010; Nelson and Reenberg; 2010), arguing that the role of ‘class, gender and culture’ in deciding whether adaptation strategies ‘are either chosen or rejected at the local scale’ renders such a shift essential (Nielsen and Reenberg, 2010: 142). Yet despite their closer attention to the human dimensions of environmental response, a key issue has been that of scale.

Studies of this ilk have been undertaken largely at the community level, a perspective that neglects the intersections of these factors and in particular how they combine to co-produce community actions. The “cultural” factors that shape mobility in response to the environment are not only multi-scalar in origin– it need not, after all, be stated that peoples’ actions are simultaneously guided by norms at the scale of household idiosyncrasies and global religion for example – but also manifestation. Just as religion informs both intimate relations and global diasporas, so too do household norms shape both whether somebody comes home for lunch and how far they will travel for work.

Yet despite its widely acknowledged influence in this regard, culture continues to appear in migratory analyses as largely mono-scalar and thus discrete from both the climate and the mobility it engenders. This leaves a structuralist approach to prevail where, as Yay Mom’s above account demonstrates, a preferable conception might hold that ‘translocal field, and hence space, can also be conceived of as being produced by the means of practices’ (Porst, 2015: 18). Indeed, rather than being purely impersonal processes, the transitions she highlights – including shifts in farming techniques, marketization and migration – are changes that have manifested through identifiable socio-economic structures which continue to play a role in the tenor of their subjective manifestation.

These subjectivities cross-cut and intersect. In the global south, the possession of land – itself the product of historic, colonial, and post-colonial structures – is raised explicitly as a structuring factor in the articulation of economic change, determining whether villagers remain in place as self-employed farmers, or migrate elsewhere to farm commercially for others. Yet demography, too, is key. Although Yay Mom does not state the reason for not following her fellow landless villagers into rural wage labour, her age is the likely factor. In Cambodia, few migrant occupations accept workers older than their 50s (Lawreniuk and Parsons, 2017), whilst begging is a rare occupation in which income is greater for the same demographic.

Crucially, though, none of the factors she cites as contributing to her misfortune is depersonalized. Each, from mechanization to migration and economic inequality, is the work of a defined and interested group – “they have”; “they went” etc. – pervading her current situation with a sense of abandonment that underpins the second part of her account. The difference observed in the mobility of Yay Mom and her neighbours therefore not only rests upon this structure, but is infused with meaning by it also. Attitudes to migrant work depend on the shared knowledge of its relationship to land; judgments as to the morality of begging are rooted firmly in assessments of economic, physical and demographic status; and these judgments in turn feed back to the structures that give rise to them.

Nevertheless, models of translocality have thus far failed to fully acknowledge this complex co-constitution of socio-economic structure and intersubjective response. In particular, despite strong evidence of the role played by emotion and norms in driving climate responses (as highlighted within the mobilities literature), these phenomena continue to be interpreted as if they are both discrete and perfectly aligned to the epistemological categories used to study them (Bankoff, 2003). What is necessary, therefore, is a dynamic approach wherein the “hard”, structural dynamics of climate response are rendered fully coherent with its “softer” intimate and normative dimensions, in order to ‘explicitly challenge the distinction between “environment/nature” and “human/culture” by questioning the universality of these dualisms’ (Pascht and Dürr, 2017: 2). This, however, requires conceptual work. Rather than the addition of cultural variables, a shift in focus is needed, towards ‘the complex and tightly interwoven human actions and social fabrics beyond the numbers and projected statistics’ (Hastrup and Olwig, 2012). Disaster response, in other words, needs to be re-imagined from the subjective, intimate and multi-scalar perspective of the people who undertake it.

Though substantial, this is a task within the overall lexicon of translocality: in principle, the gendered literature on ‘translocal subjectivities’ (Conradson and Mackay, 2007: 167) provides an effective counterpart to emerging perspectives on translocal ecologies. Yet, whilst both sites of inquiry utilise the conceptual apparatus of translocal analysis, interaction between the two has been hamstrung by the interplay of scalar and epistemological issues. Simply put, whilst translocal subjectivities must be allowed to construct the terms of their own analysis, systematic conceptions rely on a priori categorizations, often rooted in binary oppositions.

By attempting to challenge these implicit ‘Cartesian dualisms’ (Pascht and Dürr, 2017: 6), issues surrounding scale are increased (Donovan, 2017). It is relatively straightforward to increase the scale of an analytical abstraction – Everett Lee’s (1966) classic push-pull model of migration, for instance, is an example of how endlessly transferable is a systematic framework in its simplest possible form – but far more difficult to discern what subjective interpretations of mobility might mean for larger groups. Consequently, the process of departing from the ontological hegemony of scientific narratives by bringing in ‘alternative knowledges and narratives alongside analysis of colonialism and inequality’ (Carey et al., 2015: 773) presents a new array of ‘epistemological quandaries’ (Offen, 2014: 480).

Nevertheless, recent work has begun to square this scalar circle. Influenced by the frameworks and conceptual approaches developed within the mobilities literature over the past decade, such studies have started to make use of the multi-scalar inter-subjectivities explored therein to address the co-existence of subjective and structural responses to climate change. Moreover, two of these (Herbeck, 2015; Hofmann, 2014) have made use of the term ‘climate mobilities’ to reflect an approach that seeks to challenge ‘the inscribed global character of climate change’ (Herbeck, 2015: 22) with an approach receptive to the intimate character of such large scale processes. This is a crucial development for all three of the literatures examined here. Beyond this pair of studies, a broader processes of convergence has led scholars to the delineation of a novel mode of inquiry: climate mobilities as a nexus of inquiry linking the structural and emotional landscapes of climate change.

**5. Towards Climate Mobilities**

This recent emergence of the term “climate mobilities” within the translocality literature reflects a wider trend within geography. The agenda laid out by these and related approaches is indicative of a progression within the translocality, mobilities, and migration literatures towards interpretations of climate response attuned to both socio-economic, structural inequalities; and intersubjective, emotionally mediated norms. This development reflects a long overdue extension of the ‘affective turn’ (Clough and Halley, 2007: 1) towards the analysis of climate change response. As is increasingly recognized, “culture” is not simply an intermediary variable between climactic inputs and mobility outputs. Rather, a given climate event – whether chronic or acute – is ‘transformed as it encounters the human, and the relationship between the human and the natural shifts in ways that are affected by the presence of particular topologies’ (Donovan, 2017: 51). They are therefore not only dynamically linked, but co-constituted according to a shifting landscape of meaning and interpretation.

This realization has been slow to take hold. Efforts to incorporate culture “deeper” into the analysis of mobility and climate change have been hamstrung by a perceived need to retain the integrity (and thus primacy) of existing environmental frameworks. Nevertheless, what this paper aims to show is that the drive to better incorporate the cultural, normative and subjective dimensions of climate change by migration scholars such as Agrawal (1995) and Adger et al. (2013) has created a conceptual space which both the translocality and mobilities literatures have approached from different directions. Moreover, durable theoretical developments are evident from this conjuncture, as the mobilities and translocality literature’s shared concern with multi-scalarity and normative change has seen mirrored developments on each side bridge the gap between the two perspectives.

Specifically, the first foundation of climate mobilities is scale. Both the translocality and mobilities literatures are defined by multi-scalarity, yet each lens approaches scalar transitions differently. The translocality literature views scale as hierarchical; a means to ‘provide structure by enabling the description of existing socio-spatial contexts, including a differentiation between levels of spatial abstraction, from the corporeal body and everyday life as the most concrete, to transnational space as the most abstract leveI’ (Porst and Sakdapolrak, 2017: 115). By contrast, the mobilities literature adopts an opposite perspective, ‘calling into question scalar logics’ as part of ‘a broader theoretical project aimed at going beyond the imagery of “terrains” as spatially fixed geographical containers for social processes’ (Sheller and Urry, 2006: 209).

Nevertheless, although each literature approaches scale differently – one seeking to hierarchically organize and the other, essentially, to flatten – mobility is viewed in both cases as a trans-scalar phenomenon; the result of factors interacting in complex ways across multiple levels of analysis. Shared objects of investigation therefore serve to produce not competing, but complementary accounts, capable of informing and enhancing each other. This is exemplified in the case of Philippine remittances, where Mackay’s (2007) affective interpretation, and Dalgas’s (2017) account of economic flows as disaster relief are rendered epistemologically coherent by their shared – and subjectively grounded – concern with the multiple scales at which norms of assistance are experienced. Much as flows of other resources are mediated via existing structures of capital, this pairing shows, emotional responses are themselves mediated by the intersubjective norms those structures engender. Thus, assets structure not only the climate’s impact, but the lived experience of that impact also: fear, guilt, relief and pain are both shaped by and in turn shape the landscape of climate change response.

Crucially, the shared role of cultural norms to link scales here is no accident. Translocal studies of the “left behind” have long emphasised how patterns of mobility separated by both distance and scale may be crucial in sustaining each other and since its inception, the mobilities literature has tended to view culture as a dynamic, subjective and shared; a bridge between scales and ‘interacting fields of power’ (Butcher, 2011: 237). Mobility, viewed thus, ‘is movement that produces cultures’ (Jensen, 2009: 154) and though approaching from an alternative perspective, recent translocality frameworks have arrived at a similar position, using the term to ‘describe socio-spatial dynamics and processes of simultaneity and identity formation that transcend boundaries’ (Greiner and Sakdapolrak, 2013: 373).

Thus, a transient, intersubjective perspective on norms provides the common epistemological ground between subjective mobilities and structured translocality. Studying norms of family in relation to topography, for example, or gendered subjectivities as they relate to rainfall patterns and water resources serves as a lens through which to discern the systematic relations linking these subjective and objective components. More specifically, it serves as a means to bring the many and various factors involved in mobility: emotion and economics, drought and duty, under a coherent epistemological rubric.

Simply put, this means that all data relating to climate mobility should be treated in an equivalent manner. However, achieving epistemological parity between the diverse forms of data involved in such analysis necessitates substantial categorical work. From this perspective, a flood or drought should not be viewed as an event on its own terms – i.e. on the terms of “objective” pre-categorisation in the Western scientific mould – but recognised as being discerned subjectively, through its impacts rather than inherent characteristics. The structural impact of that event on mobility is therefore a question requiring preliminary subjective analysis. Only by understanding precisely what a flood, drought, or storm means to those who experience it is it possible to meaningfully interpret its impact on mobility. Anything less creates either an epistemological falsehood or a fissure: either paying lip service to subjectivities, whilst in practice retaining external frameworks; or treating one part of a model as fact and the other as opinion.

In theoretical terms, such a process of coordination is increasingly necessary. ‘Whether conscious or unconscious, core assumptions and beliefs continuously influence individual and collective actions’ (O’Brien, 2012: 593) and as recent scholarship has revealed, these subjective intersections are central to the mobilities of climate change. The case of Yay Mom, wherein structured inequalities articulate normatively infused mobilities, exemplifies this. Her emotional destitution, accentuated by isolation, but ameliorated by hope derived from her spiritual beliefs, are inseparable from the complex translocal processes that combine to direct her mobility. Indeed, mobilities link these subjective and objective dimensions, demonstrating not only inter-linkage, but co-constitution also. Even the most intimate emotional landscapes are rooted in physical realities, which in turn reflect the nuance of lived experience.

Further examples are far from rare, either in Cambodia or beyond and Yay Mom’s personal path intersects with countless others whose stories might exemplify the point with equal efficacy. The decades of consistent rural-urban mobility pursued by Phnom Penh’s rickshaw drivers (Parsons and Lawreniuk, 2016), for example, are predicated not on a static context, but on multiple transitions: from low to high uncertainty of rainfall patterns; from transplanting to broadcasting of rice crops; from everyday urban transport to nostalgic novelty; and from youth to old age in the riders themselves. None of these factors is individually sufficient to explain these subjects’ tenacious mobility in the face of a vastly changing context, rendering the concurrent investigation of normative, economic and ecological dimensions key to their analysis.

In a similar vein, Alexiades’ historical study of the Amazon rainforest (2013: 3-4) demonstrates how spatial mobility is predicated on ‘a wide range of ethnoecological processes: processes including the classification, management and domestication of plants and landscapes, and the incorporation and transformation of environmental knowledges, practices, ideologies and identities’. As he outlines, the longstanding misconception of stasis in relation to indigenous communities’ mobility in the Amazon – mirrored elsewhere as part of what Skeldon (1997: 7) calls ‘the myth of the immobile peasant’– has hampered understanding of the relationship between mobility, culture and ecology. Their discrete investigation therefore produces incomplete interpretations, whereas a coordinated analysis reveals ‘social and ecological systems as dialectically interrelated and as more complex, diverse, historically contingent and dynamic across multiple spatial and temporal horizons than was previously thought’ (Alexiades, 2013: 1).

Studies such as these emphasise the key role of intersubjective norms in structuring climate response. However, a microcosmic focus on individual contexts should not obscure the ‘complex power dynamics [that] come into play when human systems and the earth system interact’ (Donovan, 2017: 53). The small-scale processes underway in both Cambodia and the Amazon are neither merely historical, nor dislocated from global geopolitical structures. Rather, the climate’s intimate, subjective and normative dimensions in the human sphere are intimately tied to ongoing policy issues. The fleshy geopolitics (Dixon 2014) of the environment reflects that ‘social inequalities, corruption and poverty are major factors in the progression from natural hazard to disaster’ (Donovan, 2017: 48). Consequently the lives, deaths and mobilities (Tyner, 2014) of the global have nots translate ecological and political-economic factors into ‘uneven and highly unequal socio-spatial forms of precarity’ (Strauss, 2017: 6).

Furthermore, the climate-culture-mobility nexus does not promulgate change in one direction only. ‘Environment is itself the product of both physical and human forces’ (Bankoff, 2003: 3) and the patterns of change engendered by climactic and normative factors in turn feed back to ecology, generating further systematic dynamism. Across much of Southeast Asia, for example, mechanization, marketization and migration exist in a circular relationship with ecology, underpinning a widespread shift from labour to capital intensive agriculture, and thereby intensifying the need for migrant remittances and loans. In the Amazon, similarly, changing patterns of mobility shaped the land and reshaped livelihoods long before the advent of ‘guns, germs and steel’ (Diamond, 1999: 1). Yet in both cases, emotional response and shared experience is paramount; it is the intersubjective bridge linking ecological processes to mobility at multiple scales.

Indeed, this bridging concept lies at the core of the term climate mobilities, as used herein: it is one that seeks to harness and coordinate a hitherto disaggregated momentum in evidence across several disciplines, bringing together these insights in the course of greater attention to the nexus of climate and intersubjective norms in mobility. It is therefore a point of thematic convergence from which to reinterpret the data used to understand mobility in response to the climate on the basis of the lived experience of climate change; a site to explore how qualitative research, thick description and subjective analysis may serve not as an addendum, but a partner and precursor to the study of the quantitative dimensions of climate mobility. Above all, it is a call to move away from a situation in which relationships are sought between physical mobility and abstract longitudinal trends, which people simply do not experience, at least in the form they are represented.

Conceptually, therefore, the pursuit of climate mobilities is a recognition of two things. First, that to offer a comprehensive framework for the analysis of climate mobilities would be simply to repeat the mistakes critiqued in this paper; to offer further abstraction where inspection is required. Secondly, that a great deal of categorical work is required to meaningfully reconcile the lived experience and systematic analysis of climate change mobility, and that achieving this should be an iterative process. There is nothing inherently objective about a system of mobility. Indeed, mobility does not exist outside of the ‘profound, emotional, symbolic, or material links that people establish with place, the environment, or the life forms within it’ (Alexiades, 2013: 28).

Yet dialogue and collaboration is required to produce an analysis that captures this meaning without losing the benefits of a broader view. Ecological events are not separate to, but intimately intertwined with the emotional reactions they engender, mutually shaping systematic inter-subjectivities and, in doing so, crafting the land. As an emerging area of inquiry, climate mobilities is therefore a problem posed, rather than a solution offered; a bridge over an identified lacuna from which a more substantial conceptual and practical edifice may, over time, be built.

**Conclusion**

This paper has aimed to highlight a conceptual disjuncture within climate migration research between climate data itself, which exists inherently as a scientific abstraction, and human responses to the climate. As argued here, people do not move in direct response to the probabilistic boundary shifts of large scale climate change; they move due to local weather events and climate discourse, both of which are socio-economically articulated. Yet amidst widespread eagerness to prove causal linkages between migration and climate change, the human experience of the climate – i.e. the weather as it impacts on livelihoods – has all too often been ignored or elided. In its place are abstractions on ever greater scales, which bear little resemblance to the lived experiences of migration and mobility.

Seeking greater balance between the subjective and physical dimensions of climate mobility, a burgeoning literature on the ‘emotional landscape’ (Hermann, 2017: 54) of climate change has brought with it new and valuable perspectives on ‘the degree to which not just human, but also non-human entities…contain (from a culturally specific perspective) social dimensions’ (Hermann, 2017: 53). Led in significant part by authors working within the mobilities paradigm, this has sought to move away from an onus on “proving” a relationship between migration and the climate, towards a focus on how the climate is experienced, guides action and creates meaning in doing so.

Nevertheless, whilst such approaches offer a great deal on the complex inter-subjectivity of climate change response, they say far less about the durable structures that underpin this encounter. That no two people experience climate change in exactly the same manner is due as much to the “objective” realities of economy, topography and demography, as the subjective ones of norms, culture and emotion, but mobilities frameworks have yet to satisfactorily accommodate this dualism, instead retaining ‘implicit assumptions that separate “nature” and “culture”’ (Pascht and Dürr, 2017: 6)

In seeking to reconcile these two dimensions of environmental mobility, this paper has pursued three key contributions to the geographic literature. First, it has aimed to use the evidence of the three fields investigated herein to demonstrate the epistemological disjuncture inherent in current climate migration research between abstract, yet “objective” climate models and the lived, articulated experience of the climate as it promulgates migration. Second, it has highlighted how a mutual interest in linking the objective and subjective dimensions of climate migration – shared by the migration studies, translocality, and migration studies literatures – has brought these three diverse fields to the point that their respective literatures become mutually informing, providing the basis for the shared conceptual platform of climate mobilities. Finally, the paper has argued that any such reformulation must be rooted in a methodological commitment to qualitative, subjective accounts informing the entitation of quantitative accounts. The climate, in other words, must be first envisioned from ground level, before its impact on mobility can be usefully ascertained.

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