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Subjectivity and the politics of transformation in response to development and environmental change

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ABSTRACT

Adaptation is a main response to climate change that involves adaptive, but also developmental and transformative, socio-ecological change. From this perspective the politics of climate adaptation cannot be understood without considering their intersection, in particular contexts, with politics of development and transformation. These three types of politics differ in the pattern of socio-ecological change that each one promotes. We discuss the operations of power associated with each pattern of change, including the forms of authority and subjectivities that each one entails. Developmental authority achieves consent (or consensus) on a trajectory of improvement, and promotes subjectivities based on individuals' positions and their progress along that trajectory. Adaptation authority sets clear-cut boundaries between the adapting systems and their changing environments, and promotes subjectivities of belonging (or not) to the system's identity. Transformational authority seeks to transgress established authority, be it developmental or adaptive, and promotes emancipatory subjectivities. We analyze life-story narratives of local tourism entrepreneurs and workers in Akumal, a coastal enclave in Mexico doubly exposed to hurricanes and tourism globalization. This analysis shows how the operations of power in this enclave are variously linked to discourses and practices of development, adaptation, and transformation. The case of Akumal illustrates the complex interplay between risk and inequality in coastal communities exposed to growing climatic variability. Our analysis of deliberate transformations takes adaptation to climate change, and its transformative and emancipatory potential, into development. Understanding how authority and subjectivities evolve in particular locales, and the types of politics of change that they entail, is key for simultaneously reducing inequalities and risk.

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1. Introduction

Accelerating rates of climate change and ongoing international development failures are compelling global environmental change (GEC) scholars to explore societies' capacities to purposely deliver structural transformations that simultaneously reduce inequality and vulnerability (Eriksen and Brown, 2011; Moore et al., 2014). Transformation is a rapidly moving term in climate change and development research and policy. Pelling (2014) identifies applications of the term to describe: adaptive choices lying beyond the limits of incremental adaptation (Dow et al., 2013), mainstream adaptation choices that can have profound impacts on adapting social-ecological systems (Kates et al., 2012), and

adaptation that offers new political spaces to address risks and inequalities unmet by development (Pelling, 2011). Each interpretation is legitimate but here we focus on the latter. Such emancipatory responses can arise spontaneously or be deliberate (O'Brien, 2012; Westley et al., 2011). They do not necessarily originate in environmental change, but their dynamics and outcomes can be affected by it. For instance, a transformative process of contestation can be furthered or hindered by hydro-meteorological events as much as by global policies that exacerbate inequalities. The high unpredictability of outcomes from transformative processes poses distinctive challenges to climate research and interventions that seek to promote or seize transformative change.

Where transformation is deliberate, design will require questioning the assumptions and mechanisms underlying predominant discourses and practices of development of which climate change adaptation is an increasingly important component (Duffield, 2012; Pelling et al., 2012). Accomplishing these transformations

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entails innovative forms of authority and subjectivity to advance inclusive change across cultures. It also involves a stronger emphasis in power and emancipation (Manuel-Navarrete, 2010; Stripple and Bulkeley, 2013). This brings GEC research closer to critical theory and political ecology (Taylor, 2015). The intellectual origins and strands of political ecology are diverse, but GEC scholarship can draw on Foucaldian and Gramscian approaches focused on how resource users position themselves within larger fields of power, and how their involvement in ecological change is part and parcel of their own becoming as individuals (Agrawal, 2005; Li, 2007; Bulkeley and Schroeder, 2012). This paper is a first step in the challenging, and never neutral, task of using people's categorizations to understand subjectivities, and how these shape the operations of power that constitute adaptation and development in specific contexts.

We apply this emphasis on power and emancipation to the exploration of local response to climate change in Akumal: a small urban settlement in Mexico's Yucatan Peninsula dependent on beach tourism. Akumal's population, its environmental and physical assets are exposed to risk from extreme events. These have included hurricanes Emily and Wilma in 2005, and Dean in 2007. However, in policy and popular narratives, climate change, disaster risk and their management, continue to be separated from the imaginaries of everyday life (Redclift et al., 2011). This takes risk outside of development narratives to be managed instead by disaster preparedness and response, by evacuation and reconstruction. This false separation between the drivers of risk and development is reproduced through individual and economic relations, organizational structures, land-use, environmental quality and access to basic services (Manuel-Navarrete et al., 2011). This separation is in stark contrast to the tight material and experiential coupling between risk and development. A first step in reconnecting risk and development in ways that can enable practical and philosophical engagement requires an unearthing of the historical narratives and actions that have shaped specific places and their associated social and social-ecological relationships. This responds to the conventional positioning of much climate change adaptation literature that presents adaptation as sitting on top of development or inhabiting only policy fields labeled as adaptation or risk management, and so avoiding responsibility for interacting in deeper fields of social change and stasis.

We attempt in this paper to uncover the deeper and coevolving processes of social and environmental change that give rise to risk and wellbeing and their social and spatial distribution. To draw out the centrality of power asymmetries and the diverse ways in which power can be exercised locally – in acts that are deliberate, spontaneous, reactive or accidental, we present an analysis around three politics of social-ecological change. We understand politics here to signify the relations of discursive and material power held between individual actors, including organizational and collective entities extending to the extra-local state and market. We differentiate between politics that promote developmental, adaptive, and transformational patterns of socio-ecological change. These three politics coexist, are messy and sometimes contradictory, but nonetheless, are empirically distinctive across institutions, identities, practices and social-ecological materiality. Coexistence requires that each political narrative of change be uncovered. There are many analytical possibilities for doing so. Here we argue that at the heart of the historical processes of capital's creative destruction of social-ecological systems lies a tension between individual and subject formation. This frame is developed below and offers two analytical advantages. First it emphasises self-identification and the labeling of others identity as processes through which the social and spatial inequities brought through change are labeled, legitimised and can be explained by social actors. Second, it offers a mechanism to connect global scale processes with the intrapersonal dimension of local agents.

2. Politics of socio-ecological change and the pathways approach

Local response to climate change is entangled in on-going processes of socio-ecological change and their associated politics. This paper distinguishes three intersecting patterns of socio-ecological change to guide the analysis of their entanglement with climate change response. Table 1 outlines how each pattern manifests in different types of systems. In living systems change is internally regulated through genetic coding, and the system's structural coupling with the environment (Maturana, 2002). Ecosystems do not change in the same ways that organisms do. Ecological organization emerges from functional components interacting in abiotic contexts. Development is decentralized, while adaptation and transformation are multi-relational and non-linear (Holling, 1973). In socio-ecological systems, human intentionality and design open up the possibility for political dynamics (Manuel-Navarrete, 2015). This increases unpredictability and multiplies the number of feasible pathways of change.

In our globalized world the politics of development offer predictability via delineating and arranging orderly pathways of "improvement". The meaning of improvement changes over time and is a matter of interpretation, but the realities of the powerful tend to dominate (Chambers, 2013). Ultimately, that which counts as development is contingent on the distribution of social power. Adaptation in socio-ecological systems signifies local responsiveness to external threats, be they biophysical or geopolitical. While adapting to environmental fluctuations is integral to the politics of any local community, global climate change politics brings this pattern of change up in value to the point that supra-local organizations increasingly seek to partake in "local adaptation". Socio-ecological transformation signifies individual or local capacity for fundamental change, be it in values, identity or

Table 1
Patterns of change in different types of systems.

Pattern of change	Type of system		
	Organism	Ecosystem	Socio-ecological
Development	Stages imprinted in genetic code	Succession of stages given by functional relations amongst species	Pathways centrally or democratically defined as improvement
Adaptation	Phenotypical adjustment to environment	Functional adjustment of species' composition to increase resilience	Self-organizing or pre-designed adjustments to environmental change
Transformation	Change in inheritable traits	Resilience fails & system self-organizes around a new domain of attraction	Breaking down or significant alteration of an established pathway
Organizing principles	Self-production via genetic information and structural coupling with the environment	Collectively produced via functional interdependence and resilience to environmental change	Collectively produced via design, intentionality, politics, and response to environmental change