Alternautas

(Re)Searching Development: The Abya Yala Chapter

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Alternautas is a peer reviewed academic blog that publishes content related to Latin American Critical Development thinking.

It intends to serve as a platform for testing, circulating, and debating new ideas and reflections on these topics, expanding beyond the geographical, cultural and linguistic boundaries of Latin America - Abya Yala. We hope to contribute to connecting ideas, and to provide a space for intellectual exchange and discussion for a nascent academic community of scholars, devoted to counter-balancing mainstream understandings of development.

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www.alternautas.net
f: /Alternautas
t: @alternautas
info@alternautas.net
London, UK.
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Preface

Welcome to the fourth issue of Alternautas!

2017 is witnessing two major processes affecting Latin American politics in very different ways. On theone hand, the Colombian government of Manuel Santos, along with the *Fuerzas Armadas Revolucionarias de Colombia* (FARC), succeeded in signing a historical peace agreement proceeding from the long negotiation process started four years ago in La Havana, Cuba. The official signing of the peace agreement in September 2016, and its ratification by referendum a few months later, stands as a major milestone for the reconstruction of the country. However, the government is facing many barriers to the implementation of the agreement, especially regarding rebel groups' demobilisation. Other long-term challenges to face will concern land tenure reforms, the increasing inequality dominating the country, as well as development opportunities for civil society. On the other hand, the peace process of Colombia is affected by the context of political violence occurring in its neighbour country Venezuela. Indeed, Venezuela is going through a major political crisis due to the confrontation between the government of Nicolas Maduro and its opponents. The latter denounce the undemocratic character of the new constitutional assembly formed by the government, leading to violent protests, deaths and massive movements of migration mainly to Colombia, Ecuador and Peru.

In the face of these political processes, academia is progressively taking position to clarify the empirical facts and to produce rigorous analyses. For example, a recent petition has been launched by distinguished Latin American or Latin-Americanist researchers to call for an end to the escalation of violence in Venezuela[1]. Alternautas

[1] See the petition online: http://llamadointernacionalvenezuela.blogspot.ch/2017/05/llamado-internacional-urgente-detener_30.html

is committed to supporting this kind of initiatives, by analysing these events through the framework of critical development studies.

We are an academic blog focused on discussing development through critical lenses with a particular Latin American perspective. During the last four years, we have published original and translated articles from young and prominent scholars from Latin America and other parts of the world, contributing not only to academic discussions, but also to creating a fertile environment where non-mainstream ideas and perspectives on development can flourish.

The contributions presented in this fourth issue offer valuable debates and analysis that resonate with the contemporary transformations and challenges faced by Latin America and the world. On the one hand, several papers offer theoretical discussions of major concepts in the field of critical development studies, such as notions of ayllu, degrowth, cosmopolitanism and cosmopolitics, accumulation by dispossession, and non-western science. The critical lens adopted in the discussion of these concepts is essential in order to conceive new paths of alternative development in the region. On the other hand, some papers adopt a more practice-oriented approach on social policy reforms in the continent, such as social solidarity economy or wage policies. This original focus is intended to create new theories and concepts from the observation of empirical processes.

Fabian Flores Silva's contribution offers a theoretical discussion of the mutual interpellation between cosmopolitanism and cosmopolitics. Indeed, these two concepts have been traditionally separated in the literature despite their commonalities and complementarity. While cosmopolitanism refers to the consideration of the plurality of human beings and the need to solve social and economic inequalities, cosmopolitics seeks to include both humans and non-humans in the debate in order to replace nature at the centre of world politics. In this paper, the author argues for a dialogue between cosmopolitanism and cosmopolitics in order to analyse, for example, how placing nature and slowness at the centre of more short-term political decisions can contribute to the resolution of existing dilemmas regarding social, economic and cultural inequalities. However, the author warns of

the necessity for cosmopolitanism theorists, such as Martha Nussbaum, to engage with the "radical otherness" of indigenous peoples' cosmologies.

Alejandro De Coss' article seeks to analyse in a systematic manner the recent catastrophes occurring in Mexico through the work of David Harvey. Harvey's work was intended to analyse the processes of capital accumulation and its effects on the construction and transformation of space. He has been one of the main contributors to Marxist theory in the last fifty years. De Coss uses Harvey's concept of "accumulation by dispossession" to explain the resulting urban violence and political conflicts multiplying in the country in the past few decades. The author analyses drug manufacturing, energy sector reforms, land tenure laws and trade liberalism. Nevertheless, De Coss reminds us of the necessity to balance the blind criticism of global capitalism by considering the role played by the national state, local capitalism and internal colonialism.

Anne Toomey's essay, which we published simultaneously in Spanish and English, discusses the implications of considering non-western, or peripheral, forms of science in order to decolonise knowledge and redefine traditional geographical boundaries. The author focuses on the case of the 'Bolivian science', specifically on the scientific research practices in the biological field, in order to highlight the new debates in social sciences brought about by issues of biopiracy and bioprospecting. Nowhere are these debates more relevant than in countries with high levels of both biological and cultural diversity that have been subject to a history of colonialism, such as in tropical regions of South America. Many authors have written critically about these issues – however, there is less understanding about the links between such histories and the policies, discourses and relationships that occur in scientific practices in these regions of the world today. In particular, little notice has been taken of localised creations of scientific practice in non-western settings, especially in terms of how they shift scientific trends and debates on a global scale.

Alexander D'Aloia's article provides a discussion of the concept of the Social Solidarity Economy (SSE), and highlights specifically the ambiguity between its definition and its practice in South America. SSE generally refers toa break with

neoliberalism whereby the economy comes to serve social ends. The author uses a case study of Ecuador, particularly the vanguardist governmental programme called Mobiliario Escolar, to show the benefits of the blurred definition of SSE in allowing a more creative and adapted practice. According to D'Aloia, SSE proceeds from a practice-oriented theory with the potential to become a policy tool for action. In that sense, this article offers an original focus and stands out from the other articles contained in this issue, which develop more theoretically oriented analyses of discursive and social practices.

Simon Yampara's piece is an original translation, taken from the concluding chapter of his famous book, *El ayllu y la territorialidad en los Andes. Una aproximación a Chambi Grande* (2001). Here, Yampara discusses the territorial, socio-political, economic and cultural organization of the ayllu. The ayllu is a political, geographical and ethnic unit that encompasses indigenous communities occupying different ecological levels. It was the most basic indigenous territorial organisation before the spread of haciendas in the Andean region and it is practiced today in zones historically unaffected by haciendas, or by communities that seek to rebuild their indigenous socio-political organisation. The text focuses on how the Aymara concept of *suma qamaña*, normally translated as "living well" or vivir bien in Spanish, relates to a native perspective of development stemming from the ayllu organisation itself. Yampara's discussion of *suma qamaña* was highly influential amongst academics and helped to shape the policies adopted by the current administration under Evo Morales. Since there is very little of Yampara's work translated into English, Alternautas is proud to present this original translation to English speaking audiences.

Juan Velasco's work discusses the reforms in social policies that have taken place in Latin America since the return to democracy started in the 1980s. The author provides a comparative analysis of wage policies trends in Chile and Uruguay in order to highlight the role of institutional legacies, electoral competition and party politics. The two case studies offer a panoramic study of the evolution of wage policies in times of dictatorship and political pluralism, with a particular emphasis on the influence of the urgency of the reforms, collective bargaining power and the openness of parliamentary democracy. This paper opens up new perspectives of analysis on

policy-making in Latin America.

Finally, Miriam Lang's review article offers an in-depth overview of the major discussions developed in the Fifth International Conference on Degrowth that took place in Budapest in September 2016. The conference gathered activists and academics committed to social transformation. In this essay, the author questions the concept of degrowth and its applicability to the Global South. Whereas most of the literature has highlighted the incompatibility between degrowth and the need of social and economic development in the region, the author conversely suggests that degrowth is a valuable option for an alternative development in Latin America. Some alternatives discussed in the essay are political ecology, ecological economics, feminist perspectives, environmental and climate justice, and universal and unconditional basic income.

In 2016, along with a guest editor (Gerardo Muñoz), Alternautas published a dossier focusing on the end of the progressive cycle in Latin America. The dossier sought to reflect on the observed "failure" of various left-wing governments of the continent in improving democratic inclusion and reducing social inequalities. It engaged with a critical discussion on the meanings of the progressive cycle and the possibility of post-hegemonic alternatives.

In the second half of the year, Alternautas published its first special issue focusing on water and (neo) extractivism in Latin America. It gathered contributions from diverse disciplinary perspectives – including anthropology, archaeology, political science, development studies, critical sociology and geography – showing the diversity of existing approaches to study water (neo) extractivism. Moreover, the special issue covered a large geographic area from Honduras and Guatemala to Chile, Peru, Bolivia, Brazil and Colombia. In general, the authors highlighted both the attempts to establish durable alternatives in water management, and the difficulty of profoundly changing the (neo) extractivism structures that dominate the region.

Along with publishing original content, Alternautas also engages in research and diffusion activities to the scientific community. Following this objective, the editorial team has organized or contributed to panels in relevant academic conferences, such

as the Latin American Studies Association (LASA) congress, the Society for Latin American Studies (SLAS) conference at the University of Glasgow, or the Nordic Latin American Research Network (NOLAN) at the University of Gothenburg.

Alternautas has seen its audience increasing over the years: since its creation in 2014, the blog has received over 40,000 visits and 60,000 pages views, and our social media accounts have over 1,000 followers. The blog has a global impact but has garnered the most attention in Brazil, Mexico, Argentina, the United Kingdom, Germany, the United States, Chile, Peru, Colombia, Spain, Switzerland, and more. It is mainly read by English, Spanish and Portuguese-speaking audiences, but also by German and French-speaking people among others. Alternautas is now aiming to undertake a process of transformation, following the success and visibility gained since its creation. The current Editorial Board is therefore seeking to transform Alternautas into an indexed Open Access Journal, which will offer an improved capacity to share and make visible critical research on development on and from Latin America.

We are happy to share with you the great news that in the second half of 2017, Alternautas will be publishing a second special issue called "Agribusiness, (neo) extractivism and food sovereignty: Latin America at a crossroads". This special issue seeks to explore the tensions, changes and conflicts arising from the expansion of agribusiness as the dominant model of accumulation and food production in the region. Tentative special issues and calls are currently being discussed for the future, and could range from indigenous epistemologies to memory studies, more ideas and projects are always welcome!

The Alternautas Editorial Team,

Adrian E. Beling, Ana Estefanía Carballo, Gibrán Cruz-Martínez, Emilie Dupuits, María Eugenia Giraudo, Juan Loera González, María Mancilla García, Sue Iamamoto, Louise de Mello, Diego Silva, Martina Tonet, Julien Vanhulst, and Johannes M. Waldmüller

From a virtual Abya Yala, July 2017.

FABIAN FLORES SILVA[1]

Cosmopolitanism, cosmopolitics and indigenous peoples: elements for a possible alliance[2]

Introduction

We are witnessing the re-emergence of cosmopolitism. Cosmopolitanism is rising as a politico-cultural movement, which while being globalised in the inter-metropolis connection; it chiefly reaffirms the normative engagement with human rights beyond national borders. Almost simultaneously, several theories have appeared under the term 'cosmopolitical'[3]. They question cosmopolitan common sense and its mono-naturalism as they reclaim the polyphonic de- and re-construction of the world from the heterogeneous forces and entities that inhabit it. Considering their dissimilar assumptions, cosmopolitanism and cosmopolitics do not seem to encounter points of convergence, except their aspirations to think about the world. For those who support cosmopolitanism, this is the field of human political action, while for advocates of cosmopolitics the world is something to be constructed by involving human and non-human actors. In this way, as suggested by Bruno Latour, it could be argued that we are obliged to decide between cosmopolitism and cosmopolitics; between assuming the urgency of saving the world and the slowing down of decisions

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[1] FABIAN FLORES SILVA is a sociologist and a PhD student in political science at the Pontifica Universidad Catolica de Chile.

[2] This article was translated by Alexander D'Aloia, Juan Loera-Gonzalez and Martina Tonet, and originally published in http://www.alternautas.net/blog/2017/2/6/cosmopolitanism-cosmopolitics-and-indigenous-peoples-elements-for-a-possible-alliance on February 6th, 2017.

[3] See Stengers (1996; 1997; 2014), Latour (2001; 2014), among others.

that undermine this enterprise; between the 'logical equivalence' and the 'operator of equality' that Isabelle Stengers tells us about (2014).

Although cosmopolitanism and cosmopolitics are opposing and incomparable in a variety of ways, it is possible to find space for mutual interpellation and partial reconciliation. In particular, this text suggests that a possible alliance between theories is feasible. To this end, it analyses to what extent a particular cosmopolitical theory seeking to find a universal normative conception that includes human and non-human dignity, is sensitive to the requirements of entities or subjects pertaining to other cosmos, distinct from that which Western mono-naturalism recognises.

An alliance of this type allows us to see how much cosmopolitics can help to widen the margins of cosmopolitanism. Furthermore, it enables us to better comprehend how cosmopolitanism can articulate at least more than one entity with respect to the vast pool of possibilities that the universe of cosmopolitics offers. During the last fifty years, economic inequality has risen as a consequence of economic and financial globalisation worldwide. At the same time, there has been an increase in ecological and socio-environmental deterioration and global economic inequality that has led some cosmopolitan theories clamour for "global justice"[4] and instil a sense of urgency in those political actions in favour of a dignified life. In contrast to this cosmopolitan urgency, cosmopolitics asks us to slow down our decisions and remake politics in terms of pluralism and not in terms of what is considered exclusively human. It seems just as reasonable to subscribe to the sense of urgency of cosmopolitanism as the call to slowness and increasing pluralism made by cosmopolitics. Therefore, by paraphrasing Latour, is it possible to find cosmopolitan theories whose politics recognise at least more than one entity as a part of its cosmos, and whose cosmos recognises that politics as not being exclusively human?

In what follows, this text offers examples of this mutual interpellation between cosmopolitanism and cosmopolitics. It analyses the normative argument called the

[4] See Beitz (1999), Pogge (2002), Singer (2004), Steiner (2005), Caney (2005), Nagel (2005), among others.

"capabilities approach" developed by the liberal-feminist philosopher Martha Nussbaum, which can be thought of as a normative variant of the cosmopolitanism fervently criticised by Stengers and Latour. This approach is typical of extended cosmopolitanism: its elements make it more appropriate for interpellation with cosmopolitics. a) It presents a non-essentialist conception of humanity; b) it recognises the dignity, agency and status of the human subject and a limited group of non-human animals; c) it recognises that the purpose of social cooperation, by extension, is to achieve multiple species living together on the same planet; d) it identifies human dignity through the attainment of morally relevant capacities that one realises through the performance of the body and social praxis; and, e) it conceives of multiple forms of links between human beings and the environment as a relative value and not merely instrumental.

Nevertheless, one must regard the cosmopolitanism of Nussbaum's theory as a normative declaration situated in a particular (mono-naturalist) ontology, and consider the ontological pluralism that characterises the world. This implies, for example, that cosmopolitanism must strive to account for the prerogatives and demands of individuals and collectives that symbolise the "radical otherness" (Viveiros de Castro, 2010). I am referring to cosmologies of some indigenous societies in Latin America, whose identities date back to the pre-Columbian period and European colonisation.

Cosmopolitanism and the critiques of cosmopolitics

The term 'cosmopolitan' is usually employed in two ways (Caney, 2005). On the one hand, it refers to a normative position (or moral cosmopolitanism), and on the other, to a particular cultural configuration resulting from globalisation (cultural cosmopolitanism)[5]. According to Pogge (2002), moral cosmopolitanism is a

[5] This text presents versions of cosmopolitanism developed by Anglo and European authors, but it recognises other version that could be more appropriate for the problems of the "global south",

normative position based on three principles: the value of the individual (regardless of affiliation); a commitment to equality; and the existence of current moral obligations between individuals and institutions around the globe[6]. For its part, cultural cosmopolitanism conceives nations and metropolis as being enriched with greater exchange between diverse cultures that promote globalisation while it positively values politics of tolerance of diversity.

Under this conceptualisation, the argument by Ulrich Beck (2004) corresponds with a hybrid between moral and cultural cosmopolitanism, given that it articulates the phenomenon of increasing transnationalism of ties around the globe as the "cosmopolitanization of reality". In Beck´s judgement, cosmopolitan theory is better to other theories that struggle with the problem of otherness. His "realistic cosmopolitanism" suggests a universal minimum of norms or inalienable human rights that would be self-evident from a cosmopolitan common sense and which would be supported by the overwhelming majority of the (Western) population.

Beck's cosmopolitanism bothers Latour. The latter accuses Beck of seating himself in a false common sense and of reflecting nothing more than the good ethnocentric intentions of European internationalism. Not only does Latour critic Beck; he also disagrees with stoic positions and Kant. Latour argues that no cosmopolitanism understands that "when there are conflicts, not only cultures are at stake, but also the cosmos itself" (Latour, 2014: 47). In essence, for Latour, cosmopolitanism spreads in alliance with reason and science created in the West. However, because cosmopolitanism is part of only one cosmos, it does not incorporate other voices and reject that the pluriverse is part of politics (De la Cadena, 2010).

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including the "subaltern cosmopolitanism of De Sousa Santos (2003), or the "decolonial cosmopolitanism" of Mignolo (2000).

[6] This tradition has Greek roots, and has been adopted by philosophers as disparate as Kant and Derrida.

Beyond the critiques of Latour, we must ask ourselves if it is possible for cosmopolitics to salvage any element of cosmopolitanism. As I mentioned, this article values the sense of urgency and the construction of the world that cosmopolitanism either well intentionally or arrogantly pursues. That urgency makes sense on a planet that is feeling the severe social and ecological impacts of socio-environmental degradation. At the same time, cosmopolitics considers that any cosmopolitan argument must be capable of interpellation of the "cosmic idiot"[7]. This is articulating more than a single entity in the cosmos, and bringing together a politics that is not exclusively human. These requirements find their greatest plausibility in the Martha Nussbaum's cosmopolitan argument of the "capability approach"[8].

Nussbaum's Capabilities Approach as "extended cosmopolitanism"

The "capabilities approach" developed by Nussbaum is a normative argument based on the definition of a set of capacities that constitute a morally dignified human and non-human animal life. This approach has the potential to establish principles that guide a theory of global distributive justice as much as the design of domestic or international policies on matters of development; human rights and security; and matters relating to animals. From a politically liberal-feminist and cosmopolitan philosophy, Nussbaum's approach has the aspiration to be universal, that is to say, based in the notion that a life can be lived with dignity by each individual human on the planet, independent of the social grouping to which they belong (Nussbaum, 1992). Furthermore, it advocates for a life that can be lead with dignity by non-human animals, based on the intuition that all animal creatures in the world have the moral capacity and right to flourish and prosper.

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[7] The "cosmic idiot" is a conceptual character developed by Gilles Deleuze, who represents a skeptical position and resistance to any instance that seeks to accelerate the legitimation of knowledge. The "cosmic idiot" calls us not to rush to believe that we have sovereignly the meaning of what we know.

[8] It does not reject that other cosmopolitan philosophical theories might also be capable of cosmo-political interpellation.

The list of capabilities are as follows[9]: *Life* (able to live a complete life); *bodily health* (able to enjoy freedom of movement, protection of the body, and opportunities for sexual satisfaction); *senses, imagination and thought* (use the senses, imagine, think and reason); *emotions* (have affective ties toward things and other people); *practical reason* (able to form a conception of good and a critical reflection on one's life); *affiliation* (live with and towards others, show concern for other human beings, participate in various forms of social interaction); *relation with other species* (live in relation with animals, plants and the world of nature); *play* (laugh, play and enjoy recreational activities); *control over the environment* (participate in political decisions that govern the live of individuals)[10]. This list is subject to reformulation and contestation in each one of its components, to the extent by which it recognises possible contributions from other voices (Nussbaum, 2000: 77). For example, the capability of *relation with other species* emerges from discussions and suggestions developed among Norwegian organisations for the safeguarding of relational ties citizens have with the boreal forests understood as a place to enjoy a particular type of solitude.

The capability approach, as a cosmopolitan argument, has five characteristics that distinguish it from Beck's work and other cosmopolitan proposals. The capability approach gives the opportunity to minimally participate in the cosmopolitical space. Firstly, it is not based on an essentialist conception of the human or on a collective social support (as supposed by Beck); rather, it is based on a historic and pragmatic unfolding of life as activity. In this sense, the capability approach defends a strategic formulation of universality to ensure basic human and non-human capabilities. The capability approach is susceptible to interpellation and specification from dialogue with diverse societal configurations. Secondly, it recognises dignity, agency, and status of subjects, humans and non-human animals: for Nussbaum, humans and animals possess given moral powers (not derived from contractual or utilitarian premises) that they use to establish themselves through the realisation of their capabilities. Thirdly, the moral and non-essential equality between humans and

[9] Initially intended for humans, expandable *mutantis mutandi* to some animals.
[10] This list was prepared according to the Works of Nussbaum (1992, 2000 &2011).

animals is viable under the premise that the objective of social cooperation is "to live with dignity, together in a world in which multiple species try to flourish" (Nussbaum, 2007: 346). Fourthly, it understands human and animal dignity as the attainment of capabilities, that is to say, through the performance of the bodily and social belonging, and not through the abstract and rationalist retelling of what it is to be human, such as that presupposed by Kantian cosmopolitans. Finally, the approach seeks to protect, through the capability of *relation with other species*, the multiplicity of substantive ties (neither instrumental nor individual), which man establishes with his environment and the beings that inhabit it.

Shortening the distance between cosmopolitanism and cosmopolitics?

To what extent does Nussbaum's add to Kant and Beck's cosmopolitanism? And under what terms is it more inclined to align itself with the cosmopolitical project? In order to contribute to a partial response to these questions, it is necessary to remember what the central elements of cosmopolitical argument are. For Stengers, cosmopolitics is an operator for equality. It implies that "all have to be present in the mode that makes the decision as difficult as possible" (Stengers 2014: 39). Therefore, cosmopolitics is a decelerator of politics, which does not accept representation, which rejects any simplification via equivalential similitudes. However, at the same time, the cosmopolitics proposal suggests the encounter of heterogeneity, between a plurality of worlds that destabilise and undermine the intentions of Kantian "perpetual peace". The "cosmic idiot" asks for slowness in the face of the urgency of solving the problems of the world; it proposes a cosmos whose politics resists the exclusively human, a politics whose cosmos conceives of a potentially infinite list of entities.

In view of this definition, Nussbaum's cosmopolitanism offers a version that overcomes the weaknesses of Beck's theory, and which *in a limited way*, establishes points of linkage with cosmopolitics.

Since cosmopolitanism identifies an organic continuity between humans and non-human animals, it is indisputable that the ontological terrain upon which the

"capability approach" is erected is mono-naturalist. At the same time, cosmopolitanism conceives both groups as possessing agency, moral dignity and morally relevant capabilities inscribed in their social and bodily capabilities. As such, the organic mono-naturalism, that ties the approach to a scientific theory, fulfils the secondary role facing the moral value of these capabilities. Hence, mono-naturalism operates as a vector of equality between humans and non-humans in the pursuit of a thriving and established life for diverse forms of life and species that live on earth.

Both, strategic universalism and the moral commitment of capabilities to equality are elements that make us think how the "capability approach" can be understood as something more than a mere generator of equivalencies between different entities, though less than an operator of equality in the sense of Stengers. In effect, the interrelation between humans and non-humans is one of the elements that are under consideration in Nussbaum's argument on cosmopolitanism (Nussbaum, 2007: 347). In addition to this, one must add that although animals do not represent themselves in cosmopolitical politics, they at least participate in an indirect form. One can suggest that this proposal configures a space whose cosmos is composed of more than one entity and whose politics does not exclusively involve human beings. Because of this, Nussbaum's cosmopolitanism is more than Beck's cosmopolitanism and more inclined toward a cosmopolitical articulation, in spite of its limitations.

In what way could Nussbaum's cosmopolitanism open itself more boldly to cosmopolitical interpellation? How could it articulate itself in a political pluriverse? Firstly, I argue that it must be susceptible to destabilisation resulting from encounters with other ontologies. For this, the terms of the approach must open themselves up to consider prerogatives and demands of other subjects or actors that symbolise the "radical otherness" (Viveiros de Castro, 2010). "Radical otherness" is referring to those practices and worldview conceptions belonging to cosmology and ways of life of indigenous societies, whose identities date back to the pre-Columbian period and European colonisation.

These ontologies, which underlie and reproduce through social practices of various indigenous collectives in Latin America, emphasise modes of relation between

humans and non-humans that are distinct from those which mono-naturalism recognises. For example, the animist ontology, whose distinctive characteristic is the social continuity between indigenous communities and communities of non-human beings (Descolá, 2004)[11], which characterises the viewpoints of various groups that inhabit the lowlands of South America. Furthermore, the analogist ontology, where indigenous collectives integrate non-human entities on different levels, but in a hierarchical manner, as occurs in some indigenous societies in the highlands of South America (Descolá, 2013). In order to have a better understanding of the sociocultural and political ways of these human collectives, it is crucial to develop a disposition toward the recognition of ontologies distinct from mono-naturalism.

The work by Marisol De la Cadena depicts what is at stake when the interaction between natural beings and human beings confront at least two ontological perspectives; there are important political consequences. In 2006, indigenous organisations from Cusco, Peru, mobilised in defence of the mountain *Ausangate*, whose integrity they saw as being threatened by the possibility of a major mining operation being located on its slopes. In the cosmology of Andean indigenous peoples, Ausangate, represents a spirit that is a source of life or death, misery or wealth, depending on how appropriate the interactions those communities establish with this entity. Therefore, the construction of a mine does not only represent an ecological danger; it also increases the possibility that *Ausangate* could go crazy and reach the point of "killing people". This is because the interruption of practices of respect and affect that characterised the relationship between the indigenous community and natural spiritual beings from the Andes, can have uncontrolled consequences (De la Cadena, 2010: 339-341).

Therefore, we have two understandings with respect to the conflict that *Ausangate* evokes. From the 'mono-naturalist' point of view, the mountain has a cultural or ancestral value for indigenous peoples and socio-environmental activists[12]. Its

[11]Or "perpectivist", if said social continuity is not substantive but pronominal, according to Viveiros de Castro (1998).

[12] They protested alongside environmental activists in the plaza de armas in Cusco, displaying boards that said "We defend our cultural ancestry with our lives: No to the mine!" (2010:338).

contamination represents an ecological and socioeconomic danger for these communities. However, from the point of view of the animist or analogical ontology, it is the affect, respect and relationships of reciprocity between agents of the earth and humans that are in danger. Both understandings structure a cosmopolitical argument that contrasts two positions or worlds around this very entity (the mountain). Based on this conflict, the 'capability approach' could invoke, from its mono-naturalist condition, the capability of *relation with other species* as the normative function for protection of the link between *Ausangate* and the communities. In a similar way to the recognition of ties between Norwegian citizens and the boreal forests, in the case of *Ausangate* in Peru, the 'capability approach' seeks to protect a group of morally relevant and historically constructed interactions between society and nature.

In recognising the relationship of moral continuity between humans and other non-human beings, one is accounting for a bond of strength. For example, if the ecological habitat of socio-cosmology is damaged, by paraphrasing Nussbaum, human and non-human members are prevented from living a morally dignified way of life. Cases such as the one of *Ausangate* shows us that the breakdown of modes of relationship, respect and attachment between participating entities and the cosmopolitical Amerindian universe, pose a serious threat to indigenous people in terms of leading a dignified life. These cases constitute matters of concern and justice, at least in the cosmopolitan theory of Nussbaum, which, despite its limitations, offers the best conditions for a cosmopolitical articulation.

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Alejandro De Coss-Corzo[1]

Endless dispossession: looking at Mexico through David Harvey's gaze[2]

Mexico seems to be immersed in an unending series of catastrophes. Every day new stories of injustices and horrible deaths smother us. Social networks, both physical and virtual, are continuously filled with outrage, which more often than not, suddenly decays. These processes, some clearly connected and others apparently distant, can be explained in a systematic fashion through the work of David Harvey.

In his work, Harvey has sought to explain how capital accumulation produces and transforms space. This focus has established his body of work as one of the main contributions to Marxist theory in the last fifty years. In particular, he has focused on explaining the production of urban space; the role of violence and dispossession in the accumulation of capital, and the role finance plays in the capitalist system and its crises. Even if these three topics were scarcely explored by Marx, Harvey looks for clues and follows his steps in a critical and complementary way.

In this brief essay, I will look to explain the catastrophic storm that has become normal in Mexico, guided by Harvey's work. In particular, I will use his concept of *accumulation by dispossession* to understand how drug manufacturing, some law and policy reforms (in the energy sector, in particular), changes in land tenure, and trade liberalisation, can produce dispossession processes that are necessary for capital accumulation. To look at Mexico through Harvey's eyes also gives us the opportunity to understand how actual and potential resistances to dispossession, catastrophe and death are configured. This takes into account the role not only of global capitalist

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[1] Alejandro De Coss-Corzo is a PhD candidate at the Department of Sociology in the London School of Economics (LSE).

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forces; it also considers the function the national state, local capitalists and internal colonialism has in creating and maintaining processes of accumulation by dispossession (Gudynas, 2015; Martínez, et al., 2015).

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The modern history of the land that has been made into Mexico starts with a process of dispossession. National folklore has produced a clear portrait. Behind the caricature that represents indigenous populations as pristine, and the Spaniard as evil itself, there are well documented process of pillage that connect this territory to a global system based on capital accumulation and circulation (Wallerstein, 1988). The making of New Spain is an essential part of colonialism, a process that, even if transformed, persists today.

This dispossession occurs over the centuries. Moreover, it refers not only to the resources taken to Europe or the gold that fills the coffers of global powers; it is also an internal process. It is that constituted by the forced displacement of peasants and indigenous towns; the loss of common rights; the subservience of several property regimes to one: private property; the subordination of alternative production and consumption practices; the progressive monetisation of life; slavery and its trade industry; debt, and, finally, the financial credit system (Harvey, The New Imperialism, 2005).

This dispossession, thought by Marx as "primitive accumulation" (Marx, 1976), still continues. It does not belong to a singular, previous, closed off moment (Bonefeld, 2001). Due to this characteristic, Harvey calls it "accumulation by dispossession" (Harvey, 2003), and frames it as a key mechanism for capital reproduction. Moreover, the different ways in which this process takes place are not linear. That is, they do not follow any logic of inexorable progress; dispossession through debt coexists, for example, with the loss of rights over the commons.

Thus, the process of dispossession is central for capital's continuous reproduction. In over accumulation moments, where labour force and capital are abundant but cannot be used in productive ways, dispossession is a mechanism that successfully moves around the imminent crisis. That is, surplus capital and unemployed workforce are

used in producing new spaces of capital accumulation and reproduction, avoiding the destruction of capital and thwarting any potential labour revolt. This movement, a 'spatio-temporal fix' (Harvey, 1982), is twofold. On one side, it implies opening new markets, often by force. On the other, it requires undertaking large-scale infrastructural processes - contemporary urbanisation is an ideal example of this (Harvey, 1985; 1989; 2013)

The spatio-temporal fix modifies the territory. The production of new spaces that are useful for capital accumulation and reproduction is ever changing. Capitalism produces new spaces according to its temporary needs, often to destroy them when they become insufficient (Harvey, 1982). The many high-rises that are increasingly being built in Mexico City are a clear example of how capital destroys now obsolete spaces, transforming the urban fabric and shape and its dynamics.

This process of perennial expansion implies profound changes in property relations as well. The 1992 Agrarian Law is a good example of how this change becomes institutionalised. This reform sought to create a land market in order to promote the transition to capitalist relations of production in rural Mexico. The *ejidatario*[3], now freed from the land, can become cheap workforce.

Economic liberalisation can also create and accelerate dispossession processes. NAFTA arguably accelerated the transformation of the Mexican agrarian productive structure. Subsistence farming declined strongly; peasants were forced to move and migrate. For example, in the northern Mexican state of Baja California, we have witnessed the struggle of diverse indigenous peoples who migrated from southern Mexico, almost subjected to a state of slavery, displaced forcibly by poverty and the withdrawal of the state. These communities, originally from the southern states of Guerrero and Oaxaca, migrated to the north looking for decent jobs in the agricultural sector. What they found was violent exploitation, working 12-shifts for

[3] *Ejidos* are part of a particular common land property regime, in which rights over land and built environment are shared by a group of individuals, called *ejidatarios*. *Ejidos* are managed in a collective way, requiring the agreement of an assembly of members for all important decisions. In 1992, the Agrarian Law changed, so that individual parcels within *ejidos* could become private property. The change is relevant in several dimensions, as *ejidos* were one of the main symbolic and material results of the 1910 Mexican Revolution.

70 dollars a week without any kind of social security. Their strike ended in the creation of a new union, but their demands were not met.

These migratory processes can have many causes. The huge influx of cheap maize from the United States that came with NAFTA is one of them. Another one can be the mechanisms of legal easement that the recently approved Energy Reform in Mexico proposes: the obligation to rent -for periods of 50 years- that owners of those lands that are deemed useful for the production and transportation of hydrocarbons have- These transformations of land use and productivity can accelerate and deepen this forced displacement, increasing workforce availability, and therefore, rendering it cheaper.

Laws and norms can become mechanisms to sanction and promote accumulation by dispossession processes. In Colombia, the norm 9.70 of the Free Trade Agreement with the United States forbids peasants to sow their own seeds. Not only does this norm force them to buy 'authorised seeds'. It also requires them to do so every year, as the traditional practice of selecting the best seeds and reusing them is now forbidden. The Trans-Pacific Partnership (TPP), which is its ratification process, will mean the same for rural Mexico. Dispossession processes accelerate, entering new spaces, and potentially contributing to the deepening of class contradictions, even to the point of life and death.

Just as dispossession forms are not linear, neither are exploitation dynamics. Even if capitalism guides its logic around the capital-wage labour relation, there are other domination forms with which capitalism cohabits (Quijano, 2000). The organisation of inequality around race and gender lines shows how the capital-labour relation can be insufficient to explain capitalism as a system. That is, the fact that indigenous peoples are being exploited and repressed in Baja California is not arbitrary. There, the inherent racism in the coloniality of power can be seen (Quijano, 2000).

Death and accumulation are also intertwined in territories that have been sown with bodies. The frontiers between organised crime, legal industries and state institutions become blurred. In Guerrero, people that have systematically opposed drug cartels,

mining industries, and its connivance with local authorities have been persecuted, jailed and murdered. This is the visible hand of "necrocapitalism" (Banerjee, 2008).

The concept of accumulation by dispossession allows us to see struggles that depart from the classical Marxian notions of proletarian politics (Harvey, 2005). The different alliances that take place as reaction and opposition to a dispossession-oriented capitalist stage often have autonomist goals. In Mexico, the indigenous community of Cherán in Michoacán, the communitarian police forces in Guerrero, and the Zapatista communities in Chiapas can illustrate the ways in which the expansion of accumulation by dispossession processes can give place to new ways of organising, resisting and producing outside capitalism.

Seeing Mexico through David Harvey's eyes, we can conclude that the making of a more just, fair and equal society cannot be reduced to any dogma. In the liminal spaces of dispossession, creative ways of living within and outside capitalism can be seen. In Mexico, those opposing dispossession are finding ways to build larger movements together. Through this organisation, several initiatives have been created. For example, the Campaign for the Defence of Mother Earth and the Territory, is attempting to shed light to the struggles of many Mexican organisations and towns, which oppose the commodification of land and natural resources. By questioning and resisting one of the basic dynamics of capitalism, the appropriation of resources (Moore, 2015), these movements point to a different way of being in the world, based not on death and dispossession, but on life and the collective production of a fairer society.

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Anne Toomey[1]

Writing history in the present: The implications of localized forms of science in Latin America for a postcolonial world[2]

I write this essay as a gringa-neoyorquina-chilanga-tica-nicaraguese-paceña-inglesa – an identity given to me in parts by many friends from many different places around the world over the years. It is also an identity that I am coming to accept within myself, in a way that is neither deserved nor undeserved, but simply for me is a growing truth both affective and embodied. Through doing so I lay claim to a process of metamorphosis, one that began in the mind of a teenager from a New York City suburb, to undergo years of significant, often uncomfortable, transformation through lived experiences in various parts of Latin America, including most recently the 18 months of doctoral research in Bolivia on which the empirics of this essay are based.

This essay is about the makings of localized forms of technoscientific theory and practice in Latin America, specifically taking the case of Bolivia, and the implications of such for researchers coming from the Global North. Until recently, little notice has been taken of localized adaptations of scientific practice in non-western settings (i.e. Bolivian science), especially in terms of how they shift scientific trends and debates on a global scale (Harding 1994; Powell 2007). To echo Anderson's notion of the postcolonial study of science and technology, this essay is thus an attempt to

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[1] Anne Toomey is a PhD student at the Lancaster Environment Centre.

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write a 'history of the present', in order to come to terms with "the turbulence and uncertainty of contemporary global flows of knowledge and practice" (2002, 644). To this aim, I bring myself into the equation as a kind of living evidence for a process of 'reverse transculturation', in which the experiences I have had in various parts of Latin America have deeply shaped my understandings of knowledge production and use. Mary Louise Pratt used the concept of transculturation to describe the way in which groups subjugated to colonialism determined to varying extents the use of and meaning ascribed to materials and symbols imposed on them from dominating cultures (1992, 7). In a 'reverse' process, the absorption of culture and meaning also travels in the opposite direction, admitting and accepting the kind of power inherent in encounter (ibid.). This kind of exploration can help to challenge unidirectional understandings of postcolonial relations, and to make visible the ways in which the so-called 'peripheries' of the world can disrupt and change cultures of knowledge held in the northern and western 'cores' (Sundberg 2006; Harding 2006; Conductor 2004; Rodriguez 2013). The overall aim of this essay is to show how localized forms of science are not only influencing practice in the so-called 'peripheral' regions of the world, but are shifting debates on the production and use of knowledge in new directions globally.

A 'Bolivian Science'

> In Bolivia, the rationale for a given scientific project generally emphasizes integrating indigenous knowledge and materials into scientific practice… 'Science' does not reference an alternative epistemology emergent from local traditions and prioritized to contest Western models of knowledge production, though scientific practice here actively integrates indigenous perspectives and concerns. Instead, science is understood as an extraordinarily powerful tool that is modified and deployed to meet national ends (Centellas 2010, 161-162).

In her paper, *The Localism of Bolivian Science: Tradition, Policy, and Projects*, Katherine Centellas describes a unique, localized embedding of scientific practice in

Bolivia, which she refers to as Bolivian Science. She uses this notion to challenge what she refers to as a false dichotomy between the indigenous/traditional and modern/developed as often portrayed in international media accounts of Bolivian society, and depicts the practice of science in Bolivia as something carried out by women, indigenous people, and for the good of society. More than an 'indigenous science' or a universalised 'Science in Bolivia', she distinguishes Bolivian Science as unique in its commitment that the ends of its practice be focused on the local, rather than the global.

> What is different is the focus on rooting scientific practice, knowledge, and objects of study exclusively in 'our problems' and 'our conditions.' The criteria for understanding Bolivian science as science overlap with standard measures such as repeatability and transparency of method, but additional categories— among them local applicability, implementation, and technique— matter in Bolivia to a degree that marks its scientific practice as unique. This is innovative because it forges a new model of the relationship between scientific knowledge, peoples, and locations (Centellas 2010, 162).

There is much evidence in Bolivia today for this 'new model' that Centellas mentions. In December of 2013, Bolivia's first communications satellite, named Tupac Katari for the indigenous leader who organized an anti-colonial rebellion in 1781, was launched into space, promising both the modernization and nationalization of communications technologies in the country. The launching of the satellite was preceded by a ritualistic ceremony giving thanks to the 'Pachamama', and accompanied by words from Bolivia's president Evo Morales, "This will be our light, after living for so many years in the obscurity, the suffering and the domination of the empires," (21 December 2013, BBC).

As Centellas points out, since Evo's rise to power in 2006, there has been renewed interest in and emphasis on science and technology, particularly with regards to projects that emphasize the revalorization of indigenous knowledges for the sustainable management of the nation's natural resources (Viceministerio de Ciencia

y Tecnologia 2012). For example, both private and public academic and research institutions in Bolivia are taking up the Andean concept of 'Suma qamaña' ('Living Well' in English), which is being promoted as an alternative to western capitalist forms of development through the revaluing of indigenous livelihoods and belief systems (Farah and Vasapollo 2011). While there have been relevant critiques with regard to the potential of political bodies to exploit such concepts for their own ends (Guydnas 2014), Suma qamaña has had great relevance for academic discussions around "knowledge integration". Increasingly, and despite questions regarding the practical or theoretical validity of such an approach, researchers in the biological and conservation sciences are seeking to find common ground between scientific and indigenous knowledge systems. An interview with the director of the postgraduate centre for the Institute of Ecology of the Universidad Mayor de San Andres also sheds light on the new importance of this way of thinking:

> In the postgraduate centre one of the important components, aside from research, is in the Masters course called 'Ecology and Conservation'. We have en entire module around 'Living Well', indigenous ways of thinking and alternative politics. We are very critical of so-called 'sustainable development' and the Green Economy, and we promote alternative ways of thinking.[3]

These alternative ways of thinking are based in the concept of 'endogenous science', which Haverkork et al. define as a practice of knowledge production that 'has emerged from within', and often refers to something that has arisen in a given society or system, but that has been modified and improved through dialogue and co-production with other systems" (2013, 17). Thus, endogenous science is not something that has developed in complete isolation from exogenous factors, but can be understood as a product of many different ways of thinking about the world.

[3] Patricia Roncal, October 2013.

Creole science – a forgotten legacy…

> We have met the 'other' and they are us.[4]

In some ways, it may be tempting to see the emergence of such forms of localized science as an inevitable product of the recent emphasis on indigenous knowledge systems in both national and international spheres. Indeed, in policy making in Bolivia, as in global institutions such as the United Nations, the insertion of indigenous knowledge into debates on education, the use of natural resources, and economic development, is the general order of the day. At the international level, this is reflected in global forums and agreements on intellectual property rights, such as the International Declaration of Indigenous Rights and the Supplement to the Nagoya Protocol to the Convention on Biological Diversity. Among academics, this appearance of indigenous knowledge has been called a "long overdue move," and much has been written over the last three decades both about the real or false dichotomies between Western and traditional knowledge systems, and the necessary or impossible goal of integration (Agrawal 1995, 2002; Berkes 1999, 2004; Bohensky and Maru 2011; Born and Boreux 2009; Bradshaw and Bekoff 2001; Drew and Henne 2006; Moller et al. 2004; Nasasdy 2003).

However, often what is less talked about in these debates is that they are not as new as they may appear. Discussions and activities that emphasized the co-production of knowledge have existed since European science first encountered other ways of knowing as held by native cultures in places of colonialism. So-called 'Creole'[5] scientists in North and South America were among the first endeavouring to think

[4] Susanna Hecht, writing of Euclides da Cunha's vision for the development of Brazil (2013, 430).
[5] Cushman proposes narrowing usage of the term 'Creole science' to "refer to a specific geopolitical context in which systematic knowledge of the natural world provided a basis for Americans of European and mixed ethnicity to assert their own authority and dominance over regional environments and their residents while living under colonial rule. This distinguishes it historically from systematic forms of knowledge primarily intended to legitimate imperial rule or to strengthen the controllers of centralized postcolonial states—phenomena better referred to as imperial science or national science, respectively" (2011, 23).

of using science as a means to achieving the development of a modern culture in the colonies that had its roots in the traditions native to the new lands (Lafuente 2000). In some cases, this included the valuation of indigenous knowledge alongside European scientific knowledge[6] (Pastrana 1993; Lafuente 2000), but mainly the emphasis was on the 'nationalization' of the practice of science in their own lands, which was viewed by both colonizer and colonized as providing a "mechanism for increased colonial autonomy and self-sufficiency" (Chambers and Gillespie 2000, 226).

Although science developed itself differently on different soils, there are several elements in common in the various manifestations of 'Creole science'. One was that it was understood by both the Empire and the colony that the growth of science promoted autonomy and self-sufficiency (ibid.). Secondly, there was a kind of pride in and ownership of the biological riches that their birthlands offered to the Creole scientists. And finally, science was very much seen as a force for the good of society and independence – not something to be shipped back to Europe. All of these elements together resulted in the creation of unique forms of scientific practice – not simply mirrored distortions of a single, universalised 'Science' – but rather localized evolutions of the same.

\Alongside this historical discussion of Creole science, postcolonial and science studies scholars have frequently referred to the notion of 'cultural hybridity', which I argue emerges from a mixture of two juxtaposing components of any process of transculturation: mimicry and independence. Bhabha (1984) writes of the 'mimic man' as a kind of subversive being whose very existence can challenge and undermine the authenticity and originality of the colonizer. This is similar to the concept of transculturation explained earlier, which can be seen as an act of discerning between that which is desirable and that which can be rejected. When combined with 'independent', native ways of knowing the world, this 'mimic' can transform into

[6] Tsing also notes that early interactions between botany naturalists and indigenous knowledge often led the former to publish respectful accounts of the latter, which was seen by European scholars as "hostile" to European systems of ordering - "discussions among Europeans refused to acknowledge this global sharing of knowledge. Instead, they focused on the formation of a universal system of classification" (2005, 93).

something less recognizable by the colonizer, perhaps something that is 'not quite' right:

> In any process of globalization of science the receiver, far from being merely passive, selects fragments of the transmitter's broadcast and adapts them to its own circumstances. From the point of view of the transmitter, the reception is an incomplete and/or mediocre copy of what was broadcast. But seen from the point of view of the receiver, the phenomenon is much more complex: a preexisting cultural base has been enriched (and deformed) by something different and external. This means that a tradition must be 'invented' in such a way that it can interface with a new element. Only through this interactive model of mutual renewal can novelty be accepted and – most of all – used to advantage (Lafuente 2000, 156-157).

The existence of these alternative models directly challenges the western epistemological ideal of the 'universal', of which the west has been accused of 'confiscating' to further promote its own superiority over the rest of the world (Garaudi 1987; Prasad 1997). In this western-dominated universal model of science, first promoted by George Basalla, the research subject was always Europe, while elsewhere remained the object, and the flow of knowledge was one-directional – from north to south, west to east, with the latter regions simply serving to provide the data that would support theories already constructed by 'more advanced' civilizations (and minds) (Chakrabarty 1992).

There have been many challenges to this linear model of technoscientific diffusion, and scholars such as Arturo Escobar and Gilbert Joseph have come up with different forms of modernity that draw the eye to specific spaces of contact and encounter. These run alongside critical narratives from Latin American, Asian and African intellectuals, who present evidence while coloniality is largely responsible for modernization and development as we know it today, it also planted the seed of de-coloniality (Mignolo 2011). As such, Anderson (2002) writes that there is a need to redraw the old map of technoscience in order to discern new categories. However, in

practice, 'core-periphery' patterns appear to hold strong even today (also see Driver 2004 and Rodríguez 2013). As the Aymaran scholar Rivera Cusicanqui writes:

> Ideas flow, like rivers, from south to north, and become affluents of great currents of thought. But as in the world market for material goods, ideas also leave the country turned into raw material, which becomes regurgitated and turns into great hodgepodge under the guise of a finished product. This forms the canon of a new area of social scientific discourse: "postcolonial thinking". This canon brings certain themes and sources into the light, but leaves others in the shadow (2010, 68).

In this sense, and others, "core-periphery" patterns seem to maintain their dominance. The highest-rated science institutions and scientific journals with the most impact are generally found in Europe and North America[7], and the so-called universal language of science is English (Kaplan 1993; Strevens 1992; Sunderland 2009; Stocks et al. 2008)[8]. Funding for scientific research in former colonial nations tends to flow from north to south, while specimens collected in those nations travel in the opposite direction for genetic analysis and taxonomic allocating (Latour 1987; Neimark 2012; Parry 2000, 2004; Waterton et al. 2013). So it remains necessary not only to theorize about alternative technoscientific cultures and movements, but also to study and attempt to understand how by through the doing of science in different localized contexts it can be possible to decolonize it.

In this sense, contemporary localized models of scientific practice in Latin America, like the forgotten manifestations of Creole science that came before, challenge traditional models of modernity in new ways. This calls for a new way of seeking knowledge, "from a praxis that is committed to the people... This done, truth will not have to be a simple reflection of data, but can become a task at hand: not an account of what has been done, but of what needs to be done" (Martín-Baró 1994,

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[7] See university ranking websites, such as http://www.timeshighereducation.co.uk/world-university-rankings/2012-13/world-ranking; see also journal rating websites, such as http://thomsonreuters.com/journal-citation-reports/

[8] For example, it is virtually impossible to publish a peer-reviewed article, such as this piece, under the auspices of a conventional academic journal in two languages, which is one of the main motivations for publishing it here. See also a previous Alternautas blog post for an analysis of how this plays out in the social sciences: http://www.alternautas.net/blog/2015/5/3/academic-dependency-1

23). To understand this further, it is first necessary to explore how these forms have emerged out of a long history of colonial science and resource exploitation, and how this history has come to see not only what has been and what is, but to lay the foundation for what could be. In Part Two of this piece, we will do this by turning to Bolivia, one of the last of the South American countries whose biological and botanical mysteries were explored by Europeans.

Histories of biological science in Bolivia

> Nowhere do nature and the savage combine to make exploration work so difficult and so risky as in the remote corners of this continent. (Percy Fawcett, presenting to the Royal Geographical Society in 1911 the results of an expedition along the Heath River, Bolivia.)

Located in the interior of South America, with much of its geography set at a forbidding altitude and its lower regions heavily populated by indigenous tribes resistant to outsiders, scientific exploration in Bolivia by Europeans began after independence from Spain, in 1825. This was after the lifting of the so-called 'Green Curtain' that the Spanish Empire had draped across South America, in an attempt to hide its riches from the rest of Europe. It was also during the time of the Enlightenment, which encouraged educated young men from Europe – among them, Darwin, Bates, and Wallace – to follow in the footsteps of von Humboldt and others to seek out the answers to the mysteries of the natural world in the Americas (Safier 2008; Von Hagen 1951).[9]

As noted in previous works, this activity was very much one of extraction (Latour

[9] There is a very interesting history here that begins with the famous expedition to Ecuador by the Academie des Sciences in 1735, which had the aim of testing Newtonian theories on the shape and size of the earth. This expedition was a key event in the history of the Enlightenment, and was also said to mark the beginning of the history of scientific research in South America (Ferreiro 2013; VonHagen 1951). See also Anker (2001) for a historical account of ecology, who argues that "the history of ecology is best understood as a product of north-south relations, which took local research as models for an emerging global reasoning" (4).

1987; Parry 2000, 2004). Collectors gathered interesting specimens of flora and fauna, often with the paid or volunteer assistance of local people, to be shipped back to the collector's homeland, or to the country of those financing the expedition. In Bolivia, this pattern continued well into the latter part of the 20th century; even as late as the 1990s more than 90% of 37,000 zoological specimens from Bolivia were in collections around the world (Anderson 1997; Tarifa 2005).

However, alongside this more extractivist form of biological research as carried out by Europeans, new traditions of botanical and biological exploration were developing from within Bolivia, producing institutions and naturalists of national, if not international, renown.[10] Held in common amongst these was a sense of deep pride in, as well as a unique form of sovereignty over the natural delights that Bolivia could provide.

> The best prize I have received for my scientific work does not constitute the medals I've received but rather my position, indisputable and unenvied, of being a naturalist that is the absolute owner of all the wild nature in one of the most inaccessible and desired countries for its geobotanical exoticism.[11]

One of the most esteemed of the early Bolivian botanists, Agustín Aspiazu (1826-1897), wrote poetry that underscored the connection between the natural wonders of his homeland and political autonomy. One of his poems, eulogizes Bolivian independence from Spain as follows: "The bird makes another nest as soon as it flies; The fish passes from the river to the fathomless sea; The soft flower drags its pollen across the land; There, where the winds wish to drag it."[12]

However, foreigners continued to play an important role in the development of the biosciences within Bolivia, where most institutions supporting such studies were created in the second half of the 20th century. The Institute of Ecology at the UMSA,

[10] Bolivia is home to one of the oldest universities in the world: the Universidad San Francisco Xavier de Chuquisaca, which was established in 1624.

[11] Martin Cardenas, the 'lone Bolivian botanist', as quoted in Rodriguez (2005, p. 26).
[12] From the poem "Un Día Grande".

for example, got its start in 1978 by three German biologists and was funded initially by the German government. As recalled by one of the founders, Dr. Stefan Beck,

> Back then there was no biology. For example, among the professors in the department, one was a dentist. There was nothing in the collections. I remember very well arriving the first time to the main building and asking, "where are the plants?" And they pointed to a corner where there were a bunch of plant collections in a pile. That was how it was.[13]

For the first ten years of ecology in Bolivia, the work was primarily focused on discovery and the development of a national inventory of flora and fauna, which was still much driven by foreign researchers. This was at the time when, at the international level, the discourse of humanity's "shared heritage" with regard to culturally and biologically rich parts of the world was gaining traction (see Smith and Akagawa 2008 for a critical read on this subject). But even in the early days, the so-called 'new pioneers' of biological science in Bolivia developed their methods and skills largely in isolation from their foreign counterparts (Ibisch et al. 2003). Tarifa (2005) writes that the first wave of Bolivian pioneers in mastozoology was in the 1960s and 70s, but the focus was more on using biological research to better understand epidemiological problems, rather than an interest on flora and fauna for its own sake. This suggests that the interests that drove national biologists – such as human-wildlife conflicts and diseases in domesticated camelid species (llamas and alpacas) – were different than those of foreign researchers, who were more concerned with the conservation needs of charismatic species like primates and felines (ibid.). "Few of these new pioneers were adopted as disciples by foreign researchers; the majority trained themselves, eventually becoming the 'big brothers' of the third generation of national researchers that emerged in the mid-1990s" (Tarifa 2005, 126). Thus, from the beginning, there was a divide in priorities and concerns between those who came to Bolivia to do research, and those who did research on their own soil.

[13] Interview with Stefan Beck, October 2013.

A 'Bolivian Science'

> So we must oppose whatever is foreign because it is colonial, and instead revalue what is ours… But what is ours? (Lozada 2011, 22)

In 2009, a new Political Constitution of the State was put into effect, giving more rights (in theory) to indigenous communities respecting their control over their land and natural resources, specifically through the development of laws that guarantee that these resources are controlled by Bolivians and not by foreigners. Science and technology were given their own section in the new constitution, and of note is the creation of a state system of science and technology. This explicit politicizing of science – especially in the biological sciences – has provided support and funding for certain types of research Bolivia, while at the same time it has made other types infeasible. One example is the International Barcode of Life project, which was rejected by the Bolivian Vice-Ministry of the Environment's Biodiversity Department in 2013. This project has the explicit intention of identifying the micro-genome for every species on the planet in order to be able to identify and classify it into a global library of 'DNA barcodes', guided by a technoscientific vision that Paul Herbert, the initial 'inventor' of the project describe as *one gene = all species = all life* (Waterton et al. 2013, 2). This means that the creators of the project have been inspired by, and seek to inspire others, with the idea that through the mapping of all of the unique genetic codes of life on earth, humanity will learn to more greatly appreciate nature in all of its vast yet connected diversity.

In the specific case of Bolivia, due to the lack of genetic laboratories, the International Barcode of Life project required sending thousands of samples of materials of Bolivian flora and fauna out of the country to be 'coded' in better-equipped labs across North and South America. Although the project was initially approved, there were increasing concerns among the scientific staff at the Vice-Ministry of Biodiversity regarding the "leakage of national heritage" that the project appeared to be authorizing, and in 2013 the decision was taken to revoke the permission to export genetic samples under the project. With regards to the decision, one scientist involved

in the process said:

> I wouldn't call it a rejection of imperialism but rather 'love of our own', and this is my interpretation of the few who had the power of decision in this case. The reality is that other countries are much more (scientifically) advanced as compared to Bolivia, but we Bolivians have our own rhythm, perhaps slower, but we will get there, making use of the tools that external research institutions and international collaborations can provide us with. Sometimes there is a great deal of pressure from these external entities but in the end the decision is a local one.[14]

The rejection of the project demonstrates the still keenly-felt link between such modern-day attempts to classify and organize nature through foreign-led projects, and the long history of taxonomic extractivism that classified much of Bolivia's biological and botanical history, as described earlier. This points to the increasing determination of various public and private academic institutions in Bolivia to question the arguments of science for the global good, and to rewrite the mantra as science for the national good. As the quote above points out, as the project objective should be local, so should the decision. It also points towards a critical glance of the supposed inherent value in the western drive to classify and organize with a newly expressed scepticism that says, simply, "this isn't for us." Thus, this begs the question implied at the beginning of this section – what is Bolivian Science?

Bolivian science as cacophony

> In short, on the relationship between academic and indigenous sciences, whether situated within an idealized imaginary of knowledge exchange, or juxtaposed – placed side by side – on the scene of the current Bolivian context, there is only one clear answer: the integration of knowledges is possible, but only within the context of specific proposals that address specific problems or challenges. Bolivian science is not "one" indigenous science, but a pluralized repertoire of more than 30 cultures, reenacted as many times by the logic of science and academia.[15]

As the quote above points out, perhaps what is most important to understand about this process of 'remaking' science in the Bolivian context is that it does not manifest

[14] From personal communication received via email in March, 2015 with anonymous scientist.
[15] From personal communication in December, 2015 with Igor Patzi Sanjinés, anthropologist.

in a single unified 'nationalized' science. This is essential to understand, because otherwise there is a danger in giving the impression of Bolivian science to represent one shared discourse, moving forward towards an indigenous-modern future, with Bolivian Science as the driving force behind a 'Suma qamaña'-oriented progress. But to do this would be to mask the existence of many 'faces' of Bolivian science, faces that have emerged out of tensions, frictions and synergies between different worlds in Bolivia.

These faces represent a complex multisided battle of rhetoric among perceptions of western science as a double-edged sword, yet one that is necessary in order to subdue its capitalist creations, and discussions about a new way forward through the promise of Suma qamaña. They bring up the question of who can more quickly throw off the yoke of imperialism – those who have the ability to free their minds from 'internal colonialism' rife in Latin American political structures. They are at the encounter between Bhabha's mimic man and an Aymaran revolutionary and all of society that lies in-between. And here it is key to understanding the importance of the fuzzy line between dependence and independence, the space where concepts such as 'science' can be re-examined not to be simply tossed out, but to be questioned and eventually remade. This calls for more than just a rethinking of the role of science in society, suggesting a need for the kind of 'ethno-education' that Walsh and García have written about as a 'casa adentro' (or 'in-house') process of learning that is based on questioning, self-reflection and belonging: "The struggle is to return *this* form of knowledge, and in this way understand life, understand our own knowledges and insert in the educational process *our* vision of history and *our* vision of knowledge" (Walsh and García 2002, 323).

The idea is not to decolonize science by rejecting it outright, but rather by finding a multiplicity of forums through which to reimagine it through the very process of carrying it out. Across Bolivia such projects are increasingly common, and additional seemingly small gestures can point to other ways in which science in Bolivia is emerging. For example, a report written in 2007 by botanists at the National Herbarium for its international partner, the Missouri Botanical Garden, starts out with a description of an indigenous ritual they carried out with their driver at the top

of a mountain chain:

> We stopped in the highest pass called "Paso Sanchez" (4800 m above sea level), the pass is considered a sacred place and the appropriate place to make an altar or offering called "q'oa" in Quichua (fig 4). Our driver performed the ritual which offers candy, alcoholic beverages, coca leaves, and incense (resin from a new species of Clusia), to the Andean deities like Pachamama (Mother earth) and Achachilas (guardian and spirit of the mountains), and to the Virgin Maria. We all participated in this ceremony, first we gathered t'ola to build a fire (Baccharis spp., Asteraceae) in which the offerings are burned and we asked Pachamama for good health and successes in our endeavors (MOBOT 2007, p. 2-3).

While the remainder of the report focuses on the species collected for the overall aim of the project – a taxonomic inventory of the floristic species in the Madidi region – what is interesting is the insistence that the international funders be made aware of the non-western types of knowledge and living involved in the process of carrying out the research. The report discusses in detail not only the mountaintop ritual, but also lists the names of the local guides, porters and cooks who participated in the expedition, along with photographs in which these people appear, and additionally describes the process of obtaining permission and assistance from the communities located in close proximity to the research site. Throughout the process of carrying out my fieldwork in Bolivia, I came across many instances of researchers who were actively seeking ways to learn from and engage with local institutions and communities during the research process, for example, through the practice of co-authorship with indigenous partners on academic papers (see Toomey 2016). However, all acknowledged the challenges inherent in the "co-production" of knowledge, with some interviewees putting forward critique that, in many ways, western scientific and indigenous knowledge systems are inherently incompatible, and suggest that in such cases "integration" was often sought for political, rather than practical or even ethical, reasons.[16]

Conversations with scientists and policy makers in Bolivia point to a deep sense of

[16] From written correspondence in 2016 with Igor Patzi Sanjinés, anthropologist.

living in a moment of apparent contradiction about the importance of science in society, which is demonstrated in the diverse positions described in this essay. But they also reflect a growing perception of the importance of dialogue, negotiation, and above-all, rethinking in all of this. The point is that the conflicting positions, ideas and rhetoric around the place of western ideas and indigenous cosmologies are not impeding the development of a 'Bolivian science', rather they are the distinct voices responsible for its very creation. This dialogue is part of a continuing broader debate in the Global South on "internal colonialism" and the need for a "decolonization" of minds as a first step in the alternative path of modernity (Gonzalez Casanovas 1969; Cusicanqui 2012): "There can be no discourse of decolonization, no theory of decolonization, without a practice of decolonization" (Rivera Cusicanqui 2010, 62).

The proof is in the person

Perhaps the most important lesson emerging from the notion of Bolivian science is a simple understanding that 'extractivist science', in any form, is becoming increasingly unacceptable in Bolivia, as in other places. It points to how science is being used as a tool to express resistance to foreign-imposed politics of knowledge, and it additionally calls upon those who cross into Bolivia's borders to do things differently.

For myself, as a foreign researcher, this meant questioning and reflecting on the assumptions and priorities I had upon arrival to Bolivia, and rethinking the subjects of my inquiry. It meant taking a hard look at the ways in which I had been trained and educated, and understanding that there was a clear difference between what was important to my British academic institution as compared to what mattered to the Bolivian institutions, organizations and communities with whom I carried out my research. Having done my research in Bolivia means something also very specific about what I will do with the 'products' of my work. There are things that I have seen and heard that I will never write about, and things that I have written about that I will never publish, because I have learned that they are not my stories to tell.

In 2015, I returned to Bolivia after defending my thesis in England to hand back some of the results of my work through written reports, oral presentations and a short

documentary. Although I felt unsatisfied with the results of my dissemination process (see a previous blog post on this), I learned a great deal about what reciprocity means in a research context and how I might do it better the next time. Now as a young professor at a university in the United States, I hope to share what I have learned with my own students about what is acceptable and unacceptable scientific practice in different places around the world, such as Bolivia.

At the beginning of this essay I made the somewhat grand claim of having an identity built out of the multiple places I have lived and worked – places that cross complicated cultural, social and political divides. I made this claim not because I feel that by adopting such a hybrid identity I will somehow become exempt from holding a position of privilege, or because I will cease to hold responsibility for the implications of my North American-European heritage. Rather, it is because the alternative, to be a Latin Americanista, or a Bolivianista, is to imply that I simply stand outside and apart from my object of inquiry – that I am not impacted by it in turn. It is also to give recognition and credit to the places, peoples and cultures that have shaped the development of my mind and mode of acting. It acknowledges that the education I have received in the homes and on the lands of sugarcane farmers, indigenous leaders, fruit harvesters, caiman hunters and park rangers in Bolivia, Mexico, Nicaragua and Costa Rica has had at least as much influence over the researcher I have become as my more 'formal' instruction in US and British-based academic institutions.

I first came to Bolivia as a researcher seeking to be inspired by the indigenous movements for land and rights, and also with the aim of seeing how natural science methodologies and ideas could support such efforts. I had ideas for what I thought could work, ideas that changed through an often uncomfortable process of learning to be wrong, a slow awakening into the arrogance of my own assumptions. Bolivian science changed not only the subject, methods and implications of the research I conducted there, but it ensured that the work I do in the future will be forever impacted by my encounters with it. In this sense, I am a living, breathing product of Bolivian science, continuously engaged in the transmission of this 'new breed of science' to transform the way things are done back in the lands where I was born and

to whence I return.

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Escribir la historia en el presente: La "Ciencia Boliviana 'y sus implicaciones para la descolonización de la investigación[17]

Introducción

Escribo este ensayo como una gringa-neoyorquina-chilanga-tica-nicaraguese-paceña-inglesa - una identidad que me han dado por muchos amigos en muchos lugares del mundo a lo largo de los años. Es también una identidad que estoy llegando a aceptar dentro de mí, de una manera que no es merecedora ni inmerecida, pero para mí simplemente es una verdad creciente tanto afectiva como encarnada. A través de ello, reclamo un proceso de metamorfosis que comenzó en la mente de un adolescente de un suburbio de la ciudad de Nueva York. Han habido años de transformación, significativa y a menudo incómoda, a través de experiencias vividas en varias partes de América Latina, incluyendo unos 18 meses de investigación doctoral en Bolivia sobre los cuales se basan los empíricos de este ensayo.

Este ensayo trata de las formas localizadas de la teoría y la práctica tecnocientíficas en América Latina, tomando específicamente el caso de Bolivia, y las implicaciones de las mismas para los investigadores procedentes del Norte Global. Hasta hace poco, se ha prestado poca atención a las creaciones locales de la práctica científica en los

[17] By request of the author, this text is published along with a spanish version to make it accessible to Spanish-speaking audiences / Por pedido de la autora, este texto está también publicado en castellano para que sea accesible a audiencias hispano-hablantes.

contextos no occidentales (es decir, la Ciencia boliviana), y hasta los escasos debates sobre las distintas formas de la ciencia han tendido a dejar las implicaciones de éstas a un lado, especialmente en términos de la forma en que pueden cambiar las tendencias científicas y debates a escala global (Harding 1994; Powell 2007). Para repetir la noción de Anderson sobre el estudio post-colonial de la ciencia y la tecnología, este ensayo es, pues, un intento de escribir una 'historia del presente', con el fin de explorar "la turbulencia y la incertidumbre de los flujos globales contemporáneas de conocimiento y la práctica" (2002, 644). Para este fin intentamos presentar una experiencia de la 'transculturación inversa', en el que las experiencias que he tenido en varias partes de América Latina han moldeado profundamente mi comprensión de la producción y el uso del conocimiento cientifico. Mary Louise Pratt utilizó el concepto de transculturación para describir la forma en que los grupos subyugados al colonialismo determinaron los usos y los significados atribuidos a los símbolos y los materiales de la cultura dominante (1992, 7). En el proceso «inverso», la absorción de la cultura y su significado también viaja en la dirección opuesta, y este concepto sirve para reconocer y aceptar el poder inherente en el encuentro colonial para ambas partes – tanto el colonizador como el colonializado (ibid.). Este tipo de exploración puede ayudar a impugnar imaginarios unidireccionales de las relaciones postcoloniales, y hacer visibles las formas en que los llamados 'periferias' del mundo también pueden interrumpir y cambiar las culturas de conocimiento en los 'núcleos' del norte y oeste (Sundberg 2006; Harding 2006; Rodríguez 2013). Este ensayo tiene el alcance de demostrar cómo tales manifestaciones de ciencia localizada, aparte de influir la práctica científica en la denominada 'periférica' del mundo, tienen la posibilidad de reorientar los debates sobre la producción y uso del conocimiento en nuevas direcciones a nivel mundial.

La 'Ciencia Boliviana'

> En Bolivia, la racionalidad para un proyecto científico generalmente enfatiza en la integración entre el conocimiento indígena y los materiales dentro de una práctica científica…La 'ciencia' no

> se refiere a una epistemología alternativa que emerge desde las tradiciones locales y priorizadas para responder a los modelos occidentales de producción de conocimiento, aunque la práctica científica aquí integra activamente las perspectivas y preocupaciones indígenas. En vez de ello, la ciencia es entendida como una extraordinaria y poderosa herramienta, modificada y desplegada como para encajar a los fines nacionales (Centellas 2010, 161-162).

En su artículo, "El Localismo de la Ciencia Boliviana: Tradición, Políticas y Proyectos", Katherine Centellas describe una implantación única y localizada de la práctica científica en Bolivia, lo que ella denomina como la Ciencia boliviana. Ella utiliza esta noción para desafiar la "falsa dicotomía" entre lo indígena/tradicional y lo moderno/desarrollado, la cual se retrata por la cobertura mediática internacional de la sociedad boliviana. Para Centellas, la práctica de la ciencia en Bolivia es algo realizado por las mujeres, los indígenas, y para el bien de la sociedad. Más que una 'ciencia indígena' o una ciencia universalizada en Bolivia, se distingue la Ciencia Boliviana por su compromiso de que los productos de su práctica se centrarán en lo local, en lugar de lo global.

> Lo que es diferente es el énfasis en el enraizamiento de la práctica científica, el conocimiento y los objetos de estudio exclusivamente en "nuestros problemas" y "nuestras condiciones." Los criterios para entender la ciencia boliviana como ciencia se superponen con medidas estándares como la repetibilidad y la transparencia del método. Sin embargo, categorías adicionales -entre ellas la aplicabilidad local, la implementación y la técnica- importan en Bolivia hasta un grado que marca su práctica científica como única. Esto es innovador porque forja un nuevo modelo de relación entre el conocimiento científico, los pueblos y la localidad (Centellas 2010, 162).

Hay mucha evidencia en Bolivia hoy en día para este "nuevo modelo" expuesto por Centellas. En Diciembre del 2015, el primer satélite de comunicaciones de Bolivia, llamado Tupac Katari por el líder indígena que organizó una rebelión anticolonial en 1781, fue lanzado al espacio, dando promesa a la modernización y la nacionalización de las tecnologías de comunicación en el país. El lanzamiento del satélite fue

precedida por una ceremonia ritual para dar gracias a la 'Pachamama', y fue acompañado por unas palabras del presidente indígena de Bolivia, Evo Morales: "(el satélite) será nuestra luz (después de) tantos años de vivir en la oscuridad, el sufrimiento y la dominación de los imperios" (21 December 2013, BBC).

Como Centellas señala, desde el ascenso al poder de Evo Morales en 2006, se ha renovado el interés y el énfasis en la ciencia y la tecnología, en particular con respecto a los proyectos que hacen hincapié en la revalorización de los saberes indígenas para el manejo sostenible de los recursos naturales de la nación (Viceministerio de Ciencia y Tecnología 2012). Por ejemplo, las instituciones académicas y de investigación tanto privadas como públicas en Bolivia están tomando el discurso de 'Suma qamaña' (o Vivir Bien en español), que está siendo promovido como una alternativa a las formas capitalistas occidentales de desarrollo a través de la revalorización de los medios de vida indígenas y sus sistemas de creencias (Farah y Vasapollo 2011). Si bien ha habido críticas relevantes con respecto al potencial de las entidades políticas para explotar tales conceptos para sus propios fines (Guydnas, 2014), Suma qamaña ha tenido gran relevancia para las discusiones académicas en torno al "dialogo de saberes". Cada vez más, y a pesar de las cuestiones relativas a la validez práctica o teórica de tal estrategia, los investigadores en las ciencias biológicas y de la conservación están participando en la búsqueda de formas de presentar su trabajo en un formato que busca armonizar la integración entre los sistemas de conocimientos científicos e indígenas. Una entrevista con el director del centro de posgrado en el Instituto de Ecología de la Universidad Mayor de San Andrés arroja luz sobre la importancia de esta forma de pensar el *nue*vo enfoque de "ciencia boliviana":

> En el centro de postgrado tenemos una de las actividades importantes aparte de la investigación es la formación de la Maestría, que se llama 'Ecologia y Conservación'.. Tiene todo un modelo para hablar del Vivir Bien y de los pensamientos de los indígenas y de las políticas alternativas. Nosotros somos muy críticos al desarrollo sostenible, la economía verde, y promovemos una forma alternativa de pensarlo. [18]

Estas formas alternativas de pensamiento se basan en el concepto de "ciencia

[18] Patricia Roncal, octubre 2013.

endógena", lo que Haverkork et al. definen como una práctica de producción de conocimiento que "ha surgido desde dentro". Esta puede referirse a algo que ha surgido en una sociedad o un sistema, y que ha sido modificado y mejorado a través del diálogo y la coproducción con otros sistemas (2013, 17). Por lo tanto, 'lo endógeno' no es algo que se ha desarrollado en completo aislamiento de 'lo exógeno', sino un producto que ha surgido una pluralidad de muchas maneras diferentes de pensar sobre el mundo.

La Ciencia Criolla – un legado olvidado…

> Hemos conocido al 'Otro' y lo somos nosotros.[19]

En cierto modo, puede ser tentador imaginar el surgimiento de tales manifestaciones de la ciencia localizada como un producto inevitable del reciente énfasis en los sistemas de conocimientos indígenas en los discursos y esferas nacionales e internacionales. De hecho, tanto en la formulación de políticas en Bolivia, así como en las instituciones mundiales como las Naciones Unidas, la inserción de los conocimientos indígenas en los debates sobre la educación, el uso de los recursos naturales y el desarrollo económico, es el típico orden del día. A nivel internacional, esto se refleja en los foros mundiales y los acuerdos sobre derechos de propiedad intelectual, como la Declaración Internacional de los Derechos Indígenas y el Suplemento al Protocolo Nagoya a la Convención sobre la Diversidad Biológica. Entre los académicos sociales, esta aparición del conocimiento indígena ha sido llamado un movimiento que "debía haber surgido hace mucho tiempo" (Agrawal 1995), y mucho se ha escrito en los últimos tres decenios sobre las dicotomías reales o falsas entre los sistemas de conocimiento occidentales y tradicionales, y la meta necesaria o imposible de integración (Agrawal 2002; Berkes 1999, 2004; Bohensky y

[19] Susanna Hecht, escribiendo sobre la visión de Euclides da Cunha sobre el desarrollo de Brasil (2013, 430).

Maru 2011; Born y Boreux 2009; Bradshaw y Bekoff 2001; Drew y Henne 2006; Moller et al 2004;. Nasasdy 2003).

Sin embargo, es menos reconocido que estos debates no son tan nuevos como suelen aparecer. Desde el advenimiento de la cientificación del conocimiento en Europa durante el período de la Ilustración ha habido debates y actividades que hacían hincapié en la co-producción del conocimiento, y éstos llegaron a tomar otro significado cuando los naturalistas europeos encontraron por primera vez otras formas de conocimiento en las culturas originarias en los sitios bajo el colonialismo. Los llamados 'científicos criollos'[20] en las Américas fueron de los primeros en pensar en utilizar la ciencia como un medio para lograr el desarrollo de una cultura moderna en las colonias, las cuales tenían sus raíces en las tradiciones nativas de las nuevas tierras (Lafuente, 2000). En algunos casos, esto incluyó la valoración de los conocimientos indígenas junto con el conocimiento científico europeo[21] (Pastrana 1993; Lafuente 2000), pero sobre todo se hizo hincapié en la "nacionalización" de la práctica de la ciencia en sus propias tierras, que fue visto tanto por el colonizador y el colonizado como algo que podia proporcionar un "mecanismo para aumentar la autonomía y la autosuficiencia de la colonia" (Chambers y Gillespie 2000, 226).

Aunque la ciencia se desarrolló de manera diferente en diferentes tierras, hay varios elementos en común en las diversas manifestaciones de la "ciencia criolla'. Primeramente, que tanto por el Imperio como la colonia, fue reconocido que el crecimiento de la ciencia podría servir para promover la autonomía y autosuficiencia

[20] Cushman plantea un uso más específico del termo "ciencia criolla" para "se referir a un contexto geopolítico específico en que el conocimiento sistemático del mundo natural ofrecería la base para americanos de etnicidad europea o mixta afirmaren su propia autoridad y dominancia sobre ambientes regionales y sus residentes mientras se vivía en un gobierno colonial. Eso se distingue históricamente de las formas sistemáticas de conocimiento que pretendían primeramente legitimar la dominación imperial o fortalecer los controladores de Estados postcoloniales centralizados - fenómenos mejor descriptos como ciencia imperial o ciencia nacional, respectivamente" (2011, 23).

[21] Tsing también nota que interacciones tempranas entre naturalistas botánicos y conocimiento indígena frecuentemente llevó a los primeros a publicar versiones respetuosas de los segundos, lo que era visto por académicos europeos como "hostil" a los sistemas europeos de ordenamiento - "discusiones entre europeos se negaron a reconocer este intercambio global del conocimiento. Todo lo contrario, se enfocó en la formación de un sistema universal de clasificación" (2005, 93).

(ibid.). En segundo lugar, las riquezas biológicas en las colonias les proporcionaba a los científicos criollos un sentido de orgullo y propiedad sobre sus tierras. Y, por último, la ciencia era visto como una fuerza para el bien de la sociedad y la independencia - no algo para ser enviado de vuelta a Europa. Todos estos elementos juntos dieron lugar a la creación de formas únicas de la práctica científica - no simplemente espejos distorsionados de un pensamiento único y universalizada de la 'Ciencia' - sino más bien evoluciones localizadas de ella misma.

A la par de a esta discusión histórica de la ciencia criolla, investigadores de los estudios postcoloniales y de la filosofía de la ciencia han hecho frecuente referencia a la noción de la "hibridez cultural" (García Canclini, 1995), lo que se puede sostener que surge de una mezcla de dos componentes que yuxtaponen en cualquier proceso de transculturación: el mimetismo y la rebelión activa. Bhabha (1984) escribe sobre el "mimo" como un ser subversiva cuya existencia puede desafiar y socavar la autenticidad y la originalidad del colonizador. Esto es similar al concepto de transculturación explicado anteriormente, que puede ser visto como un acto de discernir entre lo que es deseable y lo que puede ser rechazado. Cuando se combina con formas endógenas y nativas de conocer el mundo, este 'mimo' puede transformarse en algo menos reconocible por el colonizador, tal vez algo que no es "del todo" correcto:

> En cualquier proceso de globalización de la ciencia, el receptor, lejos de ser meramente pasivo, selecciona fragmentos de la emisión del transmisor y los adapta a sus propias circunstancias. Desde el punto de vista del transmisor, la recepción es una copia incompleta y / o mediocre de lo que se difundió. Pero visto desde el punto de vista del receptor, el fenómeno es mucho más complejo: una base cultural preexistente se ha enriquecido (y deformado) por algo diferente y externo. Esto significa que una tradición debe ser "inventada" de tal manera que pueda interactuar con un nuevo elemento. Sólo a través de este modelo interactivo de renovación mutua se puede aceptar la novedad y, sobre todo, aprovecharla (Lafuente 2000, 156-157).

La existencia de estos modelos alternativos desafía directamente el ideal epistemológico occidental de la "universal", el cual ha acusado al oeste de haberlo "confiscado" para promover aún más su superioridad sobre el resto del mundo

(Garaudi 1987; Prasad 1997). En este modelo universal-occidental dominada por la ciencia, primeramente promovido por George Basalla, el sujeto de la investigación siempre fue Europa, mientras que otros lugares fueron los objetos, y el flujo de conocimiento viajaba en una sola dirección - de norte a sur, de oeste a este, donde estas últimas regiones simplemente sirvieron para proporcionar los datos que apoyarían teorías ya construidas por civilizaciones (y mentes) más avanzadas (Chakrabarty 1992).

Han habido muchos retos para este modelo lineal de la difusión tecnocientífica, y tales autores como Arturo Escobar y Gilbert Joseph han presentado otras formas de entender la modernidad a través de reenfocar la mirada en los espacios de contacto y encuentro. Éstos corren a lo largo de narrativas críticas de intelectuales latinoamericanos, asiáticos y africanos, que presentan evidencia de que si bien la colonialidad es en gran parte responsable de la modernización y el desarrollo como tal lo conocemos hoy, también plantó la semilla de la descolonialidad (Mignolo 2011). Como tal, Anderson (2002) escribe que hay una necesidad de volver a dibujar el mapa antiguo de la tecnociencia para discernir estas nuevas categorías (véase también Driver 2004 y Rodríguez 2013). Como escribe la investigadora aymara Rivera Cusicanqui:

> Las ideas recorren, como ri□os, de sur a norte, y se convierten en afluentes de grandes corrientes de pensamiento. Pero como en el mercado mundial de bienes materiales, las ideas tambie□n salen del pai□s convertidas en materia prima, que vuelve regurgitada y en gran mescolanza bajo la forma de producto terminado. Se forma asi□ el canon de una nueva a□rea del discurso cienti□fico social: el "pensamiento postcolonial". Ese canon visibiliza ciertos temas y fuentes, pero deja en la sombra a otros (2010, 68).

En este sentido, y otros, los patrones de "núcleo-periferia" parecen mantener su dominio. Las instituciones científicas de mayor calibre y las revistas científicas con

más impacto generalmente se encuentran en Europa y América del Norte[22], y el llamado 'lenguaje universal' de la ciencia es Inglés[23] (Kaplan 1993; Strevens 1992; Sunderland et al 2009; Stocks et al. 2008). La financiación para la investigación científica en los antiguos países coloniales tiende a fluir de norte a sur, mientras que las muestras recogidas en esas naciones viajan en la dirección opuesta para el análisis genético y clasificación taxonómica (Latour 1987; Neimark 2012; Parry 2000, 2004; Waterton et al 2013; Ellis 2009). Por lo tanto, sigue siendo necesario no sólo teorizar sobre las culturas tecnocientíficas y movimientos alternativos, sino también estudiar y tratar de entender cómo *por el medio del hacer de la ciencia* en diferentes contextos localizados sería posible descolonizarla.

En este sentido, el modelo de la Ciencia Boliviana, al igual que otras manifestaciones de la ciencia criolla que vinieron antes pero que ya son olvidadas, presenta un desafío a los modelos tradicionales de la modernidad. Esto exige una nueva manera de buscar el conocimiento, "el que no baste con ubicarnos en la perspectiva del pueblo, es necesario involucrarnos en una nueva praxis, una actividad transformadora de la realidad que nos permita conocerla no solo en lo que es, sino en lo que no es, y en ello en la medida intentamos orientarla hacia lo que debe ser" (Martín-Baró 1986, 299). Para entender esto más a fondo, primero es necesario explorar cómo la Ciencia Boliviana ha surgido de una larga historia de la ciencia colonial y la explotación de recursos, y cómo esta historia puede explicar no sólo lo que ha sido y lo es, sino poner los cimientos para lo que podría ser. En la segunda parte de este ensayo, exploraremos a Bolivia, uno de los últimos países sudamericanos cuyos misterios biológicos y botánicos fueron explorados por los europeos.

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[22] Véase las páginas web de *rankings* universitarios, como http://www.timeshighereducation.co.uk/world-university-rankings/2012-13/world-rankin, y también las páginas web de clasificación de periódicos académicos, como http://thomsonreuters.com/journal-citation-reports/.

[23] Por ejemplo, es virtualmente imposible publicar un artículo que pasó por revisión por pares, como este acá, bajo los auspicios de un periódico académico convencional en dos lenguas, lo que fue mi mayor motivación de publicarlo aquí. También se puede ver un post anterior del blog para una análisis sobre como este planteamiento se desarrolla en las ciencias sociales: http://www.alternautas.net/blog/2015/5/3/academic-dependency-1.

La historia de las ciencias biológicas en Bolivia

> En ningún otro lugar del mundo es tan difícil y tan arriesgado hacer trabajos de exploración como en los rincones más remotos de este continente, debido a la combinación de la naturaleza indomable y el salvaje. (Percy Fawcett, presentando a la Royal Geographical Society en 1911 en Inglaterra los resultados de una expedición del río Heath, Bolivia).

Bolivia fue uno de los últimos países en América del Sur cuyos misterios biológicos y botánicos fueron explorados por los europeos. Por encontrarse en el interior de América del Sur, tener gran parte de su geografía ubicada en una altura imponente, con tierras bajas pobladas por nativos resistentes a los forasteros, la exploración científica en Bolivia para todos los efectos se inició después de la independencia de España, en 1825. Esto fue después del levantamiento de la llamada 'cortina verde' con que el Imperio español había cubierto América del Sur, en un intento de ocultar sus riquezas del resto de Europa. También fue a consecuencia de la Ilustración, que alentó a los jóvenes educados de Europa - entre ellos, Charles Darwin, Henry Bates y Alfred Wallace - para seguir en las huellas de Alexander Humboldt, entre otros exploradores pioneros, para buscar las respuestas a los misterios del mundo en estas tierras poco conocidas por los Europeos (Hagen 1945; Safier 2008; VonHagen 1951). [24]

Como se ha notado en previas obras, esta actividad principalmente era de extracción (Latour 1987; Parry 2000, 2004). Los coleccionistas reunieron muestras interesantes de flora y fauna, a menudo con la ayuda pagada o voluntaria de la población local, para ser enviadas de vuelta a la patria del colector, o al país de los que financiaron la expedición. En Bolivia, este patrón continuó hasta bien entrada la segunda mitad del

[24] Hay una historia muy interesante que empieza con la famosa expedición al Ecuador de la Academie de Science en 1735, cuyo objetivo era testar las teorías de Newton sobre la forma y el tamaño de la tierra. Esta expedición fué un evento científico clave en la historia de la Ilustración, y se quedó conocida por marcar el inicio de la historia de la investigación científica en Suramérica (Ferreiro 2013; VonHagen 1951). Consultar también Anker (2001) para una perspectiva histórica de la ecología, que argumenta que "la historia de la ecología es mejor entendida como un producto de relaciones norte-sur, que utiliza la investigación local como modelo para un racionamiento emergente global" (4).

siglo XX; incluso hasta la década de 1990 más del 90% de los 37.000 especímenes zoológicos de Bolivia estaban en colecciones en el resto del mundo (Anderson 1997; Tarifa 2005).

Sin embargo, paralelo a esta forma más extractivista de investigación biológica llevada a cabo por los europeos, se desarrollaron nuevas tradiciones de exploración botánica y biológica desde Bolivia, instituciones productoras y naturalistas de renombre nacional, si no internacional.[25] Había en común entre ellos una sensación de profundo orgullo, así como la percepción de una soberanía sobre los encantos naturales de Bolivia:

> Me convencí que el mejor premio a mi trabajo científico no constituían las medallas que había recibido sino mi posición, indiscutida y no envidiada, de un naturalista que era dueño absoluto de toda la naturaleza silvestre de uno de los países mas inaccesibles y codiciados por su exotismo geobotánica.[26]

Uno de los más estimados de los primeros botánicos bolivianos, Agustín Aspiazu (1826-1897), escribió poesía que subrayó la conexión entre las maravillas naturales de su patria y la autonomía política. Uno de sus poemas elogia la independencia boliviana de España de la siguiente manera: "El ave hace otro nido apenas tiende el vuelo; El pez pasa del rio al insondable mar; La tenue flor arrastra su polen en el suelo; Allí, donde los vientos la quieren arrastrar."[27]

Sin embargo, los extranjeros siguieron desempeñando un papel importante en el desarrollo de las biociencias dentro de Bolivia, donde la mayoría de las instituciones que apoyaban estos estudios fueron creadas en la segunda mitad del siglo XX. El Instituto de Ecología de la UMSA, por ejemplo, fue establecido en 1978 por tres biólogos alemanes y fue financiado inicialmente por el gobierno alemán. Como se recuerda uno de los fundadores, Dr. Stefan Beck:

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[25] Bolivia abriga una de las universidades más antiguas del mundo, la Universidad San Francisco Xavier de Chuquisaca, que fue fundada en 1624.
[26] Martín Cardenas citado por Rodriguez (2005, p. 26).
[27] Del poema "Un Día Grande".

> Yo he empezado con este Herbario, desde 1978, porque no había biología. Los docentes de biología eran, por ejemplo, un dentista. Entonces ha pasado mucho, porque no había nada en las colecciones. Me acuerdo muy bien cuando he llegado al edificio central y he preguntado - '¿dónde están sus plantas?' Y estaban en la esquina en una pila. Esto era así.[28]

Durante los primeros diez años de la ecología en Bolivia, el trabajo era principalmente centrado en el descubrimiento y el desarrollo de un inventario nacional de flora y fauna, que fue todavía conducido en gran parte por investigadores extranjeros. Esto fue en el momento en que, a nivel internacional, el discurso de la "herencia compartida" de la humanidad con respecto a los lugares de importancia cultural y biológica del mundo estaba ganando fuerza (véase Smith y Akagawa 2008 para una lectura crítica sobre este tema). Pero incluso en los primeros días, los llamados 'nuevos pioneros' de la ciencia biológica en Bolivia desarrollaron sus métodos y habilidades en gran medida al margen de sus contrapartes extranjeras (Ibisch et al. 2003). Tarifa (2005) escribe que la primera oleada de pioneros bolivianos en mastozoología fue en los años 1960 y 1970, pero se centró más en el uso de la investigación biológica para comprender mejor los problemas epidemiológicos que en el interés por la flora y la fauna por sí misma. Esto sugiere que los intereses que inspiraron a los biólogos nacionales - como los conflictos entre los humanos y la vida silvestre y las enfermedades en las especies de camélidos domésticos (llamas y alpacas) - eran diferentes a las de los investigadores extranjeros, que estaban más preocupados por las necesidades de la conservación de especies emblemáticas como los primates y felinos (ibid.). "Muy pocos de estos nuevos pioneros fueron adoptados como discípulos por investigadores extranjeros; la mayoría se formaron a sí mismos constituyéndose en "hermanos mayores" de los investigadores nacionales que surgieron como tercera generación a mediados de los '90." (Tarifa 2005, 126). Así, desde el comienzo de la formación de las ciencias biológicas en Bolivia, había una brecha en las prioridades y preocupaciones entre los que vinieron de lejos para hacer la investigación en territorio extranjero, y los que hicieron la investigación en su propio suelo.

[28] Entrevista con Dr. Stephan Beck, Octubre 2013.

Los proyectos de la Ciencia Boliviana

> Hay que oponerse a lo foráneo porque es colonialista, siendo un imperativo reivindicar lo propio… ¿(Pero) que es lo propio? (Lozada 2011, 22).

En 2009, una nueva Constitución Política del Estado se implementó, en teoría, para dar más derechos a las comunidades indígenas, respetando su control sobre sus tierras y recursos naturales, específicamente a través de la elaboración de leyes que garantizaran que estos recursos fueran controlados por los bolivianos y no por los extranjeros. Ciencia y tecnología recibieron su propia sección en la nueva Constitución, con destaque para la creación de un Sistema Estatal de Ciencia y Tecnología. Esta politización explícita de la ciencia - especialmente en las ciencias biológicas - ha proporcionado apoyo y la financiación de ciertos tipos de investigación en Bolivia, mientras que al mismo tiempo ha hecho que otros fueran inviables. Un ejemplo es el Proyecto Internacional de Código de Barras para la Vida, lo cual fue rechazado por la Dirección de la Biodiversidad del Vice-Ministerio de Medio Ambiente en el año 2013. Este proyecto tiene la intención explícita de la identificación del micro-genoma de cada especie en el planeta con el fin de poder identificar y clasificarlos en una biblioteca mundial de códigos de barras de ADN, con la idea de que a través del mapeo de todos los códigos genéticos únicos en el planeta, la humanidad aprenderá a apreciar más la diversidad de la naturaleza.

En el caso específico de Bolivia, debido a la falta de laboratorios de genética, este proyecto requiere el envío de miles de muestras de flora y fauna para fuera del país para ser 'codificados' en laboratorios mejor-equipados en Norte y Sud América. Aunque el proyecto fue aprobado inicialmente, hubo creciente preocupación entre el personal científico en la Dirección de la Biodiversidad sobre la fuga de patrimonio nacional que el proyecto autorizaba, y en 2013 se tomó la decisión de revocar la autorización de la exportación de muestras genéticas en el marco del proyecto. Con respecto a la decisión, una persona involucrada en la toma de decisión dijo:

> Yo no lo llamaría negación al imperialismo sino es más "amor propio" y esta es mi interpretación de los pocos que estuvieron en poder de decisión para marcar huella. La realidad en el exterior es por mucho adelantada a la boliviana (en la ciencia) pero los bolivianos tenemos nuestro ritmo (tal vez

> más lento), pero llegaremos, haciendo uso de las herramientas que nos pueda proveer las entidades de investigación externa y cooperación internacional. A veces las entidades externas presionan para que se realice, pero es más una decisión local.[29]

El rechazo al proyecto demuestra que en Bolivia se percibe una fuente vínculo entre tales intentos modernos de clasificar y organizar la naturaleza a través de proyectos científicos dirigidos por extranjeros, y la larga historia de extractivismo taxonómico biológico y botánico del país, como se describió anteriormente. Esto apunta a la creciente determinación de los diferentes ministerios dentro del gobierno boliviano de cuestionar el argumento de que la ciencia sirva para el bien global, y a *volver a escribir el mantra* de la ciencia para el bien nacional. También refleja una mirada crítica sobre el valor supuesto de la práctica occidental de clasificar y organizar, con un escepticismo que dice, simplemente: "esto no es para nosotros." Por lo tanto, hay que plantear nuevamente la pregunta mencionada en el principio de esta sección - ¿que es lo propio?

La Ciencia Boliviana como cacofonía

> En definitiva, y respondiendo a la cuestión crucial de “las” ciencias académica e indígena, puestas alternativamente en una mesa de dialogo ideal, o enfrentadas, pero colocadas una a lado de la otra en el escenario del contexto boliviano actual, sólo puede esbozarse una respuesta apurada: El diálogo de saberes es posible, pero sólo como exposición de propuestas específicas a problemas o desafíos también concretos. La “ciencia boliviana” no es “una” ciencia indígena, sino un múltiple repertorio de más de 30 culturas, traspasadas con mayor o menor número de veces por la ciencia y la lógica académica.[30]

Tal como lo señala la cita anterior, quizás lo más importante de entender acerca de este proceso de la 'reconstrucción' de la ciencia en el contexto boliviano es que no se manifiesta en una sola ciencia unificada y "nacionalizada". Es esencial que esto sea claro, porque de lo contrario se corre el riesgo de dar la impresión de que la Ciencia Boliviana representa un discurso único que avanza hacia un futuro indígena

[29] Comunicación personal por correo electrónico con investigador/a anónimo/a (marzo 2015).
[30] Comunicación personal con Igor Patzi Sanjinés, antropólogo (diciembre 2015).

moderno, con la Ciencia Boliviana como la fuerza impulsora detrás de un progreso basado en el 'Suma qamaña'. Pero hacer esto serviría para ocultar la existencia de una diversidad de "rostros" diferentes de la ciencia de Bolivia, rostros que han surgido de tensiones, fricciones y sinergias entre los diferentes mundos en Bolivia.

Se trata de una compleja batalla de la retórica entre múltiples ejércitos. Por un lado, la percepción de que la ciencia occidental es como una espada de doble filo, dañina pero necesaria para poder luchar contra los pensamientos occidentales de la modernidad. Y por otro lado, fuertes gritos de rebelión y el rechazo total de lo occidental bajo la bandera de Suma qamaña. Es una cuestión de quién puede liberarse más rápidamente del yugo del imperialismo - de quienes tengan la capacidad de liberar sus mentes del "colonialismo interno" que plaga las estructuras políticas de América Latina. Es el encuentro entre el imitador de Bhabha y un revolucionario aymara y toda la sociedad que se encuentra entre ambos. Y aquí está la clave para entender la importancia de la línea difusa entre la dependencia y la independencia, el espacio donde los conceptos como la ciencia pueden ser repensados en el contexto boliviano. Esto requiere algo más que un replanteamiento del papel de la ciencia en la sociedad, apuntando a la necesidad de la "etno-educación" llamada por Walsh y García como 'casa adentro', un proceso que se basa en el interrogatorio, la auto-reflexión y el sentido de la pertenencia: "nuestro desafío es regresar a esta forma de conocimiento, y de esta manera podemos llegar a entender la vida, entender nuestros propios conocimientos e incorporar nuestra visión de la historia y nuestra visión del conocimiento dentro del proceso educativo" (Walsh y García 2002, 323).

Por lo tanto, algunos han sugerido que la solución para descolonizar la ciencia no es a través de su rechazo total, sino más bien por la búsqueda de una multiplicidad de foros a través de los cuales se puede reimaginarla para rehacerla. En Bolivia este tipo de proyecto es cada vez es más común, y además, ejemplos de algunas acciones pequeñas por parte de investigadores nacionales pueden señalar otras formas en las que está emergiendo la ciencia en Bolivia. Por ejemplo, un informe escrito en 2007 por botánicos del Herbario Nacional para su contraparte internacional, el Jardín Botánico de Missouri, comienza con una descripción de un ritual indígena que realizaron los investigadores juntos con su conductor, en camino al sitio donde la

investigación iba a ser realizada:

> Nos detuvimos en el paso más alto llamado "Paso Sánchez" (4800 m sobre el nivel del mar), el paso es considerado un lugar sagrado y el lugar apropiado para hacer un altar u ofrenda llamado "q'oa" en quechua. Nuestro conductor realizó el ritual que ofrece dulces, bebidas alcohólicas, hojas de coca e incienso (resina de una nueva especie de Clusia), a las deidades andinas como Pachamama (Madre tierra) y Achachilas (guardián y espíritu de las montañas) y La Virgen María. Todos participamos en esta ceremonia, primero recogimos t'ola para construir un fuego (Baccharis spp., Asteraceae) en el que se queman las ofrendas y le pedimos a Pachamama una buena salud y éxitos en nuestros esfuerzos (MOBOT 2007, p. 2-3).

Mientras que el resto del informe se centra en las especies recolectadas con respecto al objetivo general del proyecto - un inventario taxonómico de las especies florísticas en la región de Madidi - lo interesante es el empeño tomado por los escritores del reporte para que su contraparte internacional fuese consciente de las otras formas (no occidentales) del conocimiento involucrados en el proceso de llevar a cabo la investigación. El informe analiza en detalle no sólo el ritual en la cumbre de la montaña, sino también enumera los nombres de los guías locales, porteadores y cocineros quienes participaron en la expedición, junto con fotografías en las que aparecen estas personas, y, además, se describe el proceso de obtener el permiso y el apoyo brindado por las comunidades ubicadas en las proximidades del sitio donde se realizó la investigación. A lo largo del proceso de llevar a cabo mi trabajo de campo en Bolivia, me encontré con muchos investigadores que buscaban formas de aprender de las instituciones y comunidades locales durante el proceso de investigación, por ejemplo, mediante la práctica de la coautoría con compañeros indígenas en los trabajos académicos (ver Toomey 2016). Sin embargo, todos reconocieron los desafíos inherentes a la "coproducción" del conocimiento, y algunos entrevistados plantearon críticas que, en muchos sentidos, los sistemas occidentales de conocimiento científico e indígena son intrínsecamente incompatibles y sugirieron que en tales casos se busca la "integración" por razones políticas, más que prácticas o

incluso éticas.[31]

Las conversaciones con los científicos y los responsables políticos de Bolivia apunta a un momento de aparente contradicción sobre la importancia de la ciencia en la sociedad. Pero también reflejan una percepción cada vez mayor de la importancia del diálogo, la negociación y, sobre, todo, el repensar sobre todo esto. El punto clave es que los conflictos entre las posiciones, las ideas y la retórica mencionados anteriormente no constituyen un obstáculo para el desarrollo de una 'ciencia Boliviana', sino que son las voces directamente responsables por su propia creación. Este diálogo es parte de un continuo debate más amplio en el Sur Global sobre "colonialismo interno" y la necesidad de una "descolonización" de las mentes como un primer paso en el camino alternativo de la modernidad (Gonzalez Casanovas 1969; Fanon 2008; Rivera Cusicanqui 2012): "No puede haber un discurso de la descolonización, una teoría de la descolonización, sin una práctica descolonizadora" (Rivera Cusicanqui 2010, 62).

Al freír de los huevos lo verá

Tal vez la lección más importante que surge de la idea de la Ciencia Boliviana es que la ciencia extractivista, en cualquier forma, es cada vez más inaceptable en Bolivia, tal como en otros lugares. Demuestra que la ciencia en Bolivia está siendo utilizada como una herramienta para expresar la resistencia a las políticas del conocimiento impuestas por los extranjeros, y también pide a los que vengan a Bolivia que se comporten de una manera distinta de la que era aceptable en el pasado.

Para mí, esto ha significado cuestionar y reflexionar sobre mis suposiciones y prioridades, e y repensar los sujetos de mi indagación. También significaba mirar con atención las formas en que había sido entrenada y educada, comprendiendo que había una clara diferencia entre lo que era importante para mi institución académica británica y lo que importaba a las instituciones, organizaciones y comunidades bolivianas con las que hice mi investigación. Haber hecho mi investigación en Bolivia

[31] Comunicación por escrito con Igor Patzi Sanjinés, antropólogo (2016).

significa algo también muy específico sobre lo que voy a hacer con los "productos" de mi trabajo. Hay cosas que he visto y oído de que nunca voy a escribir, y cosas que he escrito que nunca voy a publicar, porque he aprendido que no son historias mías para contárselas.

En 2015 volví a Bolivia después de defender mi tesis en Inglaterra para devolver algunos de los resultados de mi trabajo a través de informes escritos, presentaciones orales y un breve documental. Aunque me sentí insatisfecha con los resultados de mi proceso de diseminación (ver un anterior artículo sobre esto), aprendí mucho sobre lo que significa reciprocidad en un contexto de investigación y cómo podría hacerlo mejor la próxima vez. Ahora, como joven profesora de una universidad en Estados Unidos, espero compartir lo que he aprendido con mis propios estudiantes sobre lo que es una práctica científica aceptable e inaceptable en diferentes lugares del mundo, como Bolivia.

Al principio de este ensayo hice la afirmación un tanto presuntuosa de tener una identidad construida a partir de los múltiples lugares donde he vivido y trabajado - lugares que cruzan divisiones culturales, sociales y políticas complicadas. Hice esta afirmación no porque siento que, al adoptar una identidad híbrida de esa índole, de alguna manera quedaré exenta de poseer una posición de privilegio, o porque dejaré de asumir la responsabilidad de las implicaciones de mi patrimonio europeo y norteamericano. Más bien, es porque la alternativa, de ser Latinoamericanista o Bolivianista, es dar a entender que simplemente estoy afuera y aparte del objeto de investigación - que no soy afectada por ella a su vez. Es también para dar reconocimiento y crédito a las localidades, pueblos y culturas que han dado forma al desarrollo de mi mente y modo de actuar. Tengo que reconocer que la educación que he recibido en los hogares y en las tierras de los agricultores de caña de azúcar, líderes indígenas, cosechadores de fruta, cazadores de caimanes y guardaparques en Bolivia, México, Nicaragua y Costa Rica ha tenido al menos tanta influencia sobre mí como investigadora como la instrucción más "formal" que recibí en las instituciones académicas de los Estados Unidos y del Reino Unido.

Llegué por primera vez a Bolivia como investigadora buscando ser inspirada por los movimientos indígenas por la tierra y los derechos, y también con el objetivo de ver cómo las metodologías y las ideas de la ciencia natural podrían apoyar tales esfuerzos. Tenía ideas sobre lo que podía funcionar, ideas que cambiaron a través de un proceso a menudo incómodo de aprender de mis equivocaciones, un lento despertar de la arrogancia de mis propios supuestos. La ciencia boliviana cambió no sólo el tema, los métodos y las implicaciones de la investigación que realicé, sino que aseguró que los trabajos que haga en el futuro sean impactados para siempre por mis experiencias. En este sentido, soy un producto vivo de la ciencia boliviana, continuamente involucrada en la transmisión de este "nuevo modo de la ciencia" para transformar la forma en que se hacen las cosas en las tierras donde nací y a donde vuelvo.

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Alexander D'Aloia[1]

Furnishing the Social Solidarity Economy[2]

Introduction

The basics of classical economics are known by many: individuals are rational, profit maximisers, and the best way to ensure their wellbeing is continuous economic growth. Much of the human experience is lost in this account, however. Many actions take place in the economy that cannot be rationalised as being for individual benefit. In response, scholars and policy makers have been working with ideas that highlight these actions and ensure that the economy serves social ends. One of these conceptions is the Social Solidarity Economy (SSE). Although it is a concept with long historical roots, in its current iteration the SSE is a relatively modern theoretical framework that is situated as, in part, a response to neoliberalism. In particular, by making visible and emphasising that within the economy that prioritises solidarity and mutual benefit, it aims to situate the economy within society, rather than subsume society to the economy (Pastore 2006).

In contrast with some other theoretical frameworks, the SSE is not intended to simply be a tool for analysis; instead, its proponents want it to be a framework to help direct and coordinate socially meaningful interventions in the economy. Consequently, it

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[1] Alexander D'Aloia is a PhD Candidate at the Australian National University, College of the Arts and Social Sciences.

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is important not just to theorise about the SSE, but to study it in the field, where it is being implemented by government officials, members of workers associations and cooperatives, and even individuals. To respond to this lack, this article studies the case of Ecuador where the government is explicitly using the concept of the SSE in their policy making. Furthermore, with its own government institute of the SSE—*Instituto Nacional de Economía Popular y Solidaria* (IEPS)[3]—which develops policy surrounding the SSE to be enacted by other ministries, Ecuador is possibly one of the nations that has gone the furthest in putting the SSE into practice.

This article, after briefly outlining what exactly the SSE *is*, focuses on the program *Mobiliario Escolar*.[4] The research is drawn from fieldwork I conducted as part of a minor thesis for a Master of Development Studies. During this time, I conducted a series of semi-structured interviews with both staff from the IEPS and participants in the program. *Mobiliario Escolar* is organised by the IEPS, in coordination with the Ministry of Education. In it, furniture for public primary schools is procured from the SSE. Rather than drawing up a single contract, a multitude of tenders are drawn up, with individual actors, workers associations or cooperatives receiving the contracts. Consequently, in theory, the millions of dollars spent ($21 million in 2014) are distributed to those who would otherwise be excluded from this economic activity. As will be discussed, the SSE is not a precise term. Nevertheless, this ambiguity is what allows for its potential to be a policy narrative, in the sense used by Tate (2015)—a framework to guide policy and action, and help coordinate disparate actors. When suitable bureaucratic restraints are set around the use of the concept, it appears the SSE is a potentially useful concept to help guide the economy in support of society.

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[3] The astute reader may note that the terminology from Ecuador is more along the lines of the "Popular Solidarity Economy". Although the term has a slightly different origin to the "Social Solidarity Economy", in Ecuador the two terms are used interchangeably. For this reason I have used "Social Solidarity Economy" throughout.

[4] *Mobiliario Escolar* literally translates as "School Furniture".

The Theory of the Social Solidarity Economy

One of the few things that are agreed upon about the SSE is the lack of consensus around its precise definition. This has come about for a variety of reasons, language differences through to the history of the term. Even so, much of the lack of consensus simply derives from different personal interpretations. Nevertheless, there is sufficient agreement around the SSE for us to be able to trace an outline of what it concerns, and what it can potentially offer for policy formation.

While the origins of the term likely lie with the concept of the "social economy", from the French literature during the Industrial Revolution (Bastidas-Delgado and Richer 2001), the bulk of the work currently being done on the SSE is coming out of Latin America, and South America in particular. There, the concept of the SSE has moved beyond its conception as an oppositional term to neoliberalism, and has become a theoretical framework in its own right. In particular, it has borrowed from Polanyi the idea that it is not that the economy *should* not be self-regulating, but that it *cannot* be self-regulating (Polanyi 2001). Following from this, most theorists have used the ideas of Laville to arrive at an expanded definition of the "economic" whereby it signifies not just the narrow idea of rational decision making in a situation of presumed scarcity, but a much broader conception of "relations between human beings and the natural environment from which they derive their sustenance" (Laville 2010, p. 77).

It is into this history that South American academics have injected their own ideas around the purposes of the SSE, even if these ideas are quite diverse (Chavez 1997). To a large extent, this diversity in ideas and conceptions stems from the fact that in South America the SSE is seen as a concept still developing in both theory and practice (Abramovich and Vázquez 2007). Consequently, the range of potential actors and actions one could consider a part of the SSE is potentially limitless. Proponents of the SSE, however, avoid this difficulty by not treating it as a "really existing" economy (Chavez 1997). Instead, in South America, the SSE is largely treated as an approach to, or a lens for viewing how the economy is much more than simply the market. One of the leading theorists of the SSE describes it as "an

intellectual process guided by explicit and socially relevant values... not merely explicative and predictive" (Chavez 1999, p. 126).

Consequently, the SSE is largely a focus on actions, rather than actors. This is where the "solidarity" part of the Social Solidarity Economy becomes important. The basis of the SSE is to focus on those economic actions that represent not simply profit motive, but a desire to cooperate and work in ways that benefit those around us. It must be acknowledged, however, that the line between private and public gain is not always clear; therefore, there may never be a perfect delineation between what is and is not a part of the SSE. This does not actually present a problem for the SSE, however. As previously stated, its primary purpose is not to describe a "really existing economy", but to draw our attention to certain aspects of the economy and "make visible" actions that previously went unobserved or under-appreciated.

Nevertheless, as previously mentioned, the SSE is intended not just to be a lens for analysis, but also a tool to direct action—a "policy narrative" in the sense used by Tate. That is, a tool to "marshal the fullest range of institutional allies and to create coherence amongst disparate programs" (2015, p. 5). In this way, it is essential to not just study the SSE from a theoretical perspective, but to see how it operates in the field. While my research reveals good potential for the use of the SSE, more than anything, it highlights the need for further research into the effects of reorienting the discursive framework of government, and whether this has the potential to dislodge "the market" from primacy of place in conceptions of development.

The Social Solidarity Economy in Practice

As previously mentioned, Ecuador is one of the nations that has gone furthest with implementing the SSE. In 2011, the government passed the *Ley Orgánica de Economía Popular y Solidaria*, a law that established the official limits the SSE, and actions that the government was going to take regarding it. While the exact rules around membership to the SSE are complex, in short, workers associations, cooperatives, and small businesses and sole traders earning below a certain threshold are legally considered a part of the SSE. Similarly, while there is a range of activities

the government is obligated to take, there is one key part of the law, which is relevant to this article—namely, that the government has to procure goods and services from the SSE wherever possible.

Mobiliario Escolar is part of a wider network of tenders that aim to fulfil this legal requirement, called *Ferias Inclusivas*.[5] *Mobiliario Escolar* is an excellent example of the process of conducting a *feria*, and will be used as an example. In this program, when the government needs to procure furniture for primary schools, rather than going out to tender for one single, large contract, the government advertises their intention to buy school furniture. Those who are part of the SSE can apply. At the same time, the IEPS also negotiates fixed pricing with suppliers of raw materials. Once applications have been received, the IEPS breaks up the work between the applicants, ensuring everyone who is eligible receives some work. Cooperatives and workers associations are given proportionately more work to encourage individuals to form groups. The workers then go about making the furniture. Through this whole process, the IEPS monitors the production and offers help and training where necessary. Finally, the desks and tables are delivered to the relevant schools, the most local wherever possible.

The extent to which the theory met practice in Ecuador was surprising. To begin with, the definition of the SSE was quite consistent across all groups. As expected, the staff at the IEPS had the clearest understanding of both the definition of the SSE, and who was considered to be a part of it. In nearly all instances they focused on the law, using its definitions to work out who was a part of the SSE. Interestingly, although this helped tame the theoretically limitless number of participants in the SSE, it had the effect of shifting focus away from actions, as is often looked at in theories, and turned it to subjects. Nevertheless, the somewhat ambiguous nature around who is a part of the SSE was still evident. Matching Nelms' observations, "officials' delimitations were not permanent, but provisional" (Nelms 2015, p. 119). While I was there, the IEPS was just in the middle of a change in policy direction. Whereas up till then there had been a strong emphasis on small and family run business, the IEPS was placing more emphasis on workers associations and

[5] This translates as "Inclusive Fairs", with "fair" in the sense of "school fair".

cooperatives. This was for a variety of reasons, both practical and ideological, but it showed that the slightly ambiguous nature of the SSE allowed for suitable flexibility for the IEPS, while the law ensured definitions did not become unwieldy.

By and large, participants in the program shared similar conceptions of the SSE as the IEPS staff, albeit more general. For them, solidarity was emphasised. In the words of one participant, "The SSE means it's not for me. It's not for you. It's for everybody." She spoke about training up those who wanted to participate in *Mobiliario Escolar*. These were not official training sessions (although she did assist with these), but instead she reported that people often passed by her workshop asking how they could get involved in the program. Her simple response was "I'll hook you up. I'll teach you." Throughout the program were many stories of informal assistance offered between participants, even though there were rarely any material returns.

This reflects the most fundamental aspect of the SSE—that people are not just profit-seeking individuals, but are members of society who, under the right circumstances, will actively seek to cooperate with one another for mutual benefit. This is hardly a revolutionary insight. Instead, what is novel is that the IEPS was well aware of this going on and actively encouraged this cooperation. In fact, in many ways *Mobiliario Escolar* was predicated on it. For example, when one producer came up with a new, more efficient way to bend the wood for the backs of chairs, the IEPS got them to travel to other parts of the country to demonstrate this method, helping other producers match his efficiency. In this way, the operation of the SSE has some similarity to Ostrom's idea of collective action (Ostrom 1990), albeit without any actual common pool resource and a much greater potential role for government.

Nevertheless, for the SSE to have any real potential for policy impact, it must provide real benefits for participants and society as a whole. *Mobiliario Escolar* clearly did the former and, potentially, the latter. These benefits can be roughly divided into the tangible and intangible. Tangible benefits include things, such as greater income and training that have a clear and practical effect on participants. On the other hand, intangible benefits are those, such as greater social cohesion and "democratising" the

economy, that match with the theorised benefits of the SSE, but are more ephemeral and difficult to quantify.

The tangible benefits of *Mobiliario Escolar* were largely what was to be expected—training and extra income. The training offered through the program came in two forms. The first was to do with the processes of procuring and contracting with the Ecuadorian government. This was the form of training most commented on by participants, but was essentially training in how to partake in the program itself. The other key type of training was the more practical skills in furniture production. These were delivered in a combination of formal sessions and informal cooperation between producers. Formal sessions were organised by the IEPS and delivered by the suppliers of primary materials. Particularly appreciated examples included MIG welding and powder-coating—skills that up until recently had been very uncommon in Ecuador.

The extra income was also much commented upon by participants. Notably, and matching with the theories of the SSE, participants rarely referred to this as income. Instead, what they generally referred to was how this extra money allowed participants to improve or increase their production. With the notable exception of one participant, who had inherited a lot of equipment from his father, all participants said the extra income went toward equipment for their workshops. This was particularly relevant, as much of the money from the program was distributed in advance, predicated on the work to be done. In this way, *Mobiliario Escolar* became a major source of credit for these small producers, allowing them to expand and diversify their work.

This segues nicely into the more ideological benefits of the SSE and *Mobiliario Escolar* in particular. Possibly the biggest benefit the SSE aims to provide is ensuring the economy serves society, rather than the other way round. When viewed as a single part of a wider web of projects, *Mobiliario Escolar* is an appropriate, if not uncomplicated, response to this objective.

When explained to me by an official with the IEPS, great emphasis was placed on how *Mobiliario Escolar* redirects resources to people who would otherwise miss out. Participants themselves referred to this as "opportunity". Previously, when the

government had needed goods, they simply made one large contract. The factory tended to be mechanised, consequently generating less employment, and much of the money spent by the government went to a relatively small portion of the population. In contrast, *Mobiliario Escolar* is seen by both staff and participants as allowing a wider population to access this opportunity. It is important to note that participants themselves framed this as access to opportunities rather than income. In fact, one participant was emphatic that "they haven't gifted us [the money]. They've made it so that our efforts generate our money."

Currently, due to the exceptionally high cost of importing machinery into Ecuador, this small-scale production is still competitive relative to large factories. Nevertheless, the staff at the IEPS generally did not see this as hugely significant. One staff member told me that "you can't measure it in monetary terms, because if you save $2 million, that $2 million represents a mountain to those who you would otherwise contract [for the purchase of furniture]." This is the quintessential essence of the SSE—making the economy serve society, rather than the reverse. Officials emphasised that many of those receiving the money were eating more, sending their children to school, and getting sick less. This effect was amplified by the fact that every contractor I spoke to had to employ several people to cope with the workload.

Two cases in particular stood out. These were the largest cooperatives in the program. They were based in San Jose de Chimbo, a region that had been famous for making guns until it was outlawed in 2007. Scores of small tradespeople were rendered unemployed almost overnight. Those from the cooperatives reported much hardship, and even suicides. The government used *Mobiliario Escolar* to redirect funds to the region, taking advantage of an already existing pool of wood- and metal-working knowledge. While the production of furniture has not replaced the arms trade to the same level as previously, the participants in the program were certainly grateful for the opportunity to continue working.

Nevertheless, this apparent "democratisation of the economy", as locals referred to it, was not unproblematic. To begin with, programs like *Mobiliario Escolar* do not represent people "having meaningful control over political and democratic forces"

(Friant and Langmore 2015, p. 65). Participants still entirely relied on the IEPS to negotiate *ferias inclusivas* with other ministries. Although the law specifies that departments must procure through the SSE wherever possible, it is up to said departments to decide if this is feasible. For instance, as I was finishing my fieldwork, the IEPS was beginning negotiations with the Ministry of Education for another round of *Mobiliario Escolar*. However, many within the ministry wanted plastic school furniture, as apparently this is more durable. If this happened, it would largely be the end of the program, as the machinery needed for injection moulded plastics are not feasible for small producers. In this way, rather than society taking primacy of place above the market, it is the government above the market. This is not necessarily a problem, as ideally a government should act in the interest of its people, but it certainly complicates the idea of the SSE.

Similarly, with the recent crash in the oil price, Ecuador has been having budgetary difficulties. As one official explained to me, a school needs to replace books and uniforms constantly, but even old, slightly broken furniture will serve. Consequently, although *Mobiliario Escolar* aims to tame economic forces in people's lives, and direct them with greater equality to those who have missed out, in this modern globalised economy, there appears to be scant refuge to be had from international monetary flows and commodity prices.

Conclusion

Despite decades of critique of neoliberalism as a global economic structure and protests against its consequences, many governments still seem to quest after economic rationalism in the belief that what is best for the market is best for society. Of those critiques, the SSE is just one thread, and its proponents do not proclaim it to be a solitary solution. Instead, it is an ongoing experiment, an attempt to ensure that we do not continue to reify the market, and instead make sure economics serves social needs. For proponents, this means focusing on people's natural inclination to

cooperate and work for mutual benefit. Nevertheless, what marks the SSE as different to other theories is its emphasis on practice and, consequently, experimentation.

By focusing on the actually occurring, and aiming to offer a practical guide to policy makers, the SSE appears to have benefitted participants in a variety of ways. These range from the individual-level incomes that employees of participants garner, through to the group-level benefits of encouraging social cooperation via the formation of cooperatives and workers associations. Furthermore, and perhaps more importantly, when considered as part of a wider system of *ferias inclusivas*, *Mobiliario Escolar* is even aimed at macro-level change. "Solidarity" in this context was not only individuals cooperating, but the whole of Ecuadorian society.

Nevertheless, there is a wider lesson to be drawn from *Mobiliario Escolar* and the SSE more broadly. That is the benefits of practice-focused theory. Rather than taking much of the status quo as given, the SSE starts with the end goal of the economy serving society, rather than the reverse and, through encouraging social support and solidarity, works out how to get there. It is inherently experimental, and can be somewhat disjointed due to the lack of consensus around definitions. Nevertheless, what it does do successfully is create visions of alternate economics, in some ways similar to the ideas of Gibson-Graham (2006), and not just for theorists, but also for policy makers with real capabilities to change systems. In this way, one of the most important aspects of the SSE is not necessarily its specific policy recommendations, but its example as a way of guiding economic policy that is not based on the primacy of the market.

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SIMON YAMPARA HUARACHI[1]

The ayllu and territoriality in the Andes[2]

Editorial note

Alternautas is extremely proud to present this excerpt of the work of the Bolivian sociologist Simón Yampara. Born and raised in the Aymara *ayllu* of Chambi Grande, from the 1970s onward, Yampara participated in the Katarista movement, one of the main drivers of the indigenous turn in Bolivian social movements, particularly among peasant unionists. Yampara has retained close ties to his community, and has become a renowned sociologist. He teaches at the UPEA (Public University of El Alto), and devotes most of his intellectual work to the Andean *cosmovision* or worldview. This paper is excerpted from the concluding chapter of his book, *El ayllu y la territorialidad en los Andes. Una aproximación a Chambi Grande* (2001), in which he discusses the territorial, socio-political, economic and cultural organization of the *ayllu*. As this excerpt is the conclusion of a lengthy work, some clarification is needed.

The *ayllu* is a political, geographical and ethnic unit that encompasses indigenous communities occupying different ecological levels (Condarco Morales, 1970; Murra, 1975). It was the most basic indigenous territorial organization before the spread of *haciendas* in the Andean region and it is practiced today in zones historically unaffected by *haciendas,* or by communities that seek to rebuild their indigenous

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[1] SIMON YAMPARA HUARACHI is Professor of Sociology at the Universidad Pública de El Alto (UPEA), in Bolivia.

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socio-political organization. The text below focuses on how the Aymara concept of *suma qamaña*, normally translated as "living well" or *vivir bien* in Spanish, relates to a native perspective of development stemming from the *ayllu* organization itself. The book was published in 2001, during a time when "communitarian lands of origin" (TCOs, in their Spanish acronym) were starting to be recognized and institutionalized, a process that began in the mid-1990s. Yampara's discussion of *suma qamaña* was highly influential amongst academics and helped to shape the policies adopted by the current administration under Evo Morales.

Despite the important influence of this book in particular, and Yampara's work in general, in Bolivian national politics, his work has remained largely absent in English-speaking academia. We are very happy to share this first translation with you and we welcome comments and inquiries.

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Before concluding these reflections, we will discuss some of the ideas of Condarco (1970), Murra (1975), Troll (1987) and Dollfus (1991), who reflect upon the types of memories that interact in Andean spaces. They tell us:

The "domesticated" nature contains different information from the "savage" nature, where **landscapes are history settled on the earth, which provide information both about the "memory of men's (sic) time" and the "memory of nature".**[3] These landscapes are at the same time an indication of human action and a matrix where life is created. "**Being in the Andes means being in an unstable place** (…). Therefore, only by being named, a place is given the attributes associated with different information extracted from each one of the memories" (Dollfus, 1991, p. 11).

This contrasts to a certain extent (though it does not necessarily contradict) with Mason's opinion (cited by Condarco, 1970) that "**few regions in the world contain such contrasts**, from the sea level to the highest inhabitable regions, from completely

[3] All the bold text was given by the author (translator's note, T.N.).

arid deserts to the lushest tropical forests, from permanently hot regions to zones where snow and ice are eternal. **Probably nowhere else in the world it is possible to have similar transitions in such a limited space**". In the Andes there is a wide variety of geographic spaces. There, to live together, each group "produced" a "society" characterised by working rules, but at the same time that "the society is being produced", it produces its own space.

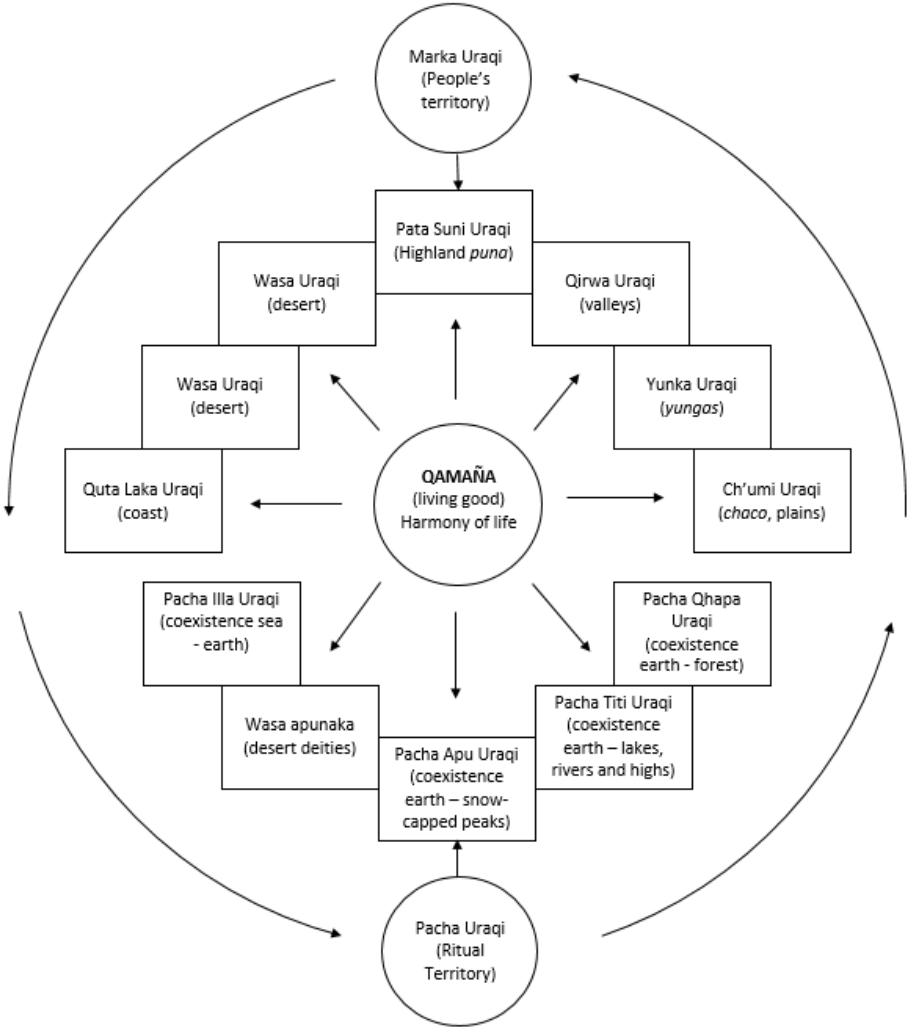
"Human activity creates spaces that condition relationships, which are established in a given extension, choosing certain places distant from each other, each of them characterised by a number of attributes". However, **the spaces overlap, coincide, and the same places can become causes of conflict and competition: these are the eternal conflicts for space. The geographic spaces, products** of groups and societies, **are not immutable, they last as long as societies and human interventions. "The 'landscape' did not create, in any sense, the 'man' (sic)**, but **the men (sic) have extended their dominance of the landscapes they enjoyed** and occupied. Agriculture is the root of all spiritual and social culture".

As we will see, the geographic space of Andean territoriality encapsulates contrasts and mysteries, as well as the blessings of "lush" climates and inhabitable deserts. That is to say, the most extensive climatic variety imaginable in limited spaces.

On the heterogeneity and variety of ecological spaces

The graph below helps us to understand the territorial organization of the Andean space in its diverse ecologies and ecosystems of production, wisely articulated by the system of Andean *ayllus*:

Graph 1 - Geographic representation of Andean ecologic space organization



Translation note: *Puna* refers to a semi-arid plateau in Andean highlands; *yungas* are a tropical forest region to the East of the Andean mountain range; and *chaco* denotes lowland plains that occupy a vast territory shared by Eastern Bolivia, Northern Paraguay and Argentina and Western Brazil.

One of the main purposes of the work of this memory was precisely to understand, from the logics of a concrete *ayllu* as Chambi Grande,[4] the old strategy of territorial management complementarily articulating the variety of ecological spheres of the *ayllu*'s life. In this regard, the graph is very illustrative, particularly if one contrasts it to the stone carving of Tiwanaku complemented by the Andean cosmovision.[5]

The steps of the Puerta del Sol (Sun Gate) in Tiwanaku address the memories of "nature" and of "man" (as identified by Dollfus, 1991). They do so through a kind of architecture, or "floor plan" of the Andean ecology and ecosystems, where only the engineering of the Andean *ayllus*' men (sic) had the virtue and capacity to build the house of life, which in Aymara is called **Qamaña**.[6] This architecture of staggering in different "ecological levels", in our criteria, is precisely represented in the central part of the gate under a character in mythic ritual action, constructed in stone carving. This is schematically reproduced in our graph, obviously lacking the symbolic elements of Andean ritualism, but containing the identification of sacralised spaces and degrees of territorial authorities of the Andean cosmovision, practised and reproduced by Andean *ayllus*. In identifying each ecological space we have found empty spaces known as deserts or inhabitable moors, but also their corresponding "unknown" and "empty" spaces in the world of deities. Thus, the men of the Andean ayllus move along the variety of natural physical spaces and the inhabitable, empty, and deserted physical spaces that have their expression also in the world of the deities.

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[4] Chambi Grande is an *ayllu* in the Southeast of La Paz department, part of a greater ethnic unit called Marka Curawara de Pacajes. In chapter 3 of the book, Yampara explains the history of the *ayllu* in detail. Although its inhabitants resisted the occupation of its territory by neighbouring *haciendas* and remained an autonomous indigenous territory, Chambi Grande westernised its socio-political units after the 1952 National Revolution, adopting the structure of peasant unions. In 1999, the authorities of Chambi Grande decided to return to their indigenous socio-political organization, the *ayllu* (T.N.).

[5] Tiwanaku is an archaeological site northwest of the city of La Paz, which was the centre of a pre-Columbian civilization. Yampara makes reference to the stone carving of a human figure standing on the top of a platform formed by a sequence of steps, located at the top of the Puerta del Sol, one of the most important monuments of Tiwanaku. An image of the carving can be found here: http://pueblosoriginarios.com/sur/andina/tiwanaku/iconos.html# (T.N.).

[6] *Qamaña*, a key concept in this text, relates broadly to the verb "to live" (T.N.).

This is something to be further investigated. The *yatiri* and *chamakani*, wise Andean masters, processors of the Andean cosmovision, can shed more light on this problem. It is also necessary to call archaeologists, geographers, anthropologists and ethnologists to work critically on Tiwanaku with the logic of Andean *ayllus*. The combined reading of both parts will be able to provide us an adequate comprehension of both the territoriality and institutionality of the Andean *ayllu*.

On the "Ayllu – Qamaña"

The empirical evidence of life in the ayllus surprisingly reveals the key to the Aymara life, a model called *suma – qamaña*, which is qualitatively superior to the model of "community development" proposed by the state and private institutions.

The *Ayllu-Qamaña* is a systemic and holistic institution with four fundamental organizational pillars: a) management of territory; b) productive and economic system; c) the cultural system and the hierarchy of ritual spaces; d) the socio-political system and the hierarchy of authorities. These factors, combined, keep the balance of the life in the *ayllu*.

*Qamaña (**Qm**)* approximately equals the sum of the material growth (mg), biological growth (bg) and government of ecosystems (gec). **Qm ≅ mg + bg +gec**, where the territorial organization and the adaptation of production create a "tetralectical" process, or ***tiwana-qalqu*** in Aymara. This process is comprised of elements such as the "*jaqi tamacha*" (socio-political organization), "*japhalla qamasa*" (spatial distribution of spiritual and ritual energy), "*yapu, aynuqa-anaqa*" (land allocation for agriculture), "*uywa anaqa-aynuqa*" (land allocation for cattle). These factors provide harmony to the life of the ayllus. The logic of the ayllus combines and harmonises the double dimensionality of property law of these territorial spaces. That is to say, *sayaña* is the space of family usufruct, where family private law (a partiality) is exercised, while *saraqa* is a space of movement and usufruct of all the families in the community, where community law (the other complementary partiality) is exercised. This is where we see that both private and community interests co-exist in the life of

the *ayllus*. The territorial property is of the *ayllu*. *Sayaña* and *saraqa* are spaces of family and community usufruct, since families belong to the *ayllu*'s territorial space. This is the simultaneous implementation of a mixed law (private and communitarian).

Returning to the equation of the *qamaña*, from the study of the life of Chambi Grande *ayllu*, we can infer the following equations:

The *Ayllu-Marka* (**Ayma**) approximately equals the sum of the territorial organization logic (**teol**), the production and economic system (**proecos**), the cultural and ritual system (**curis**) and the socio-political system and the hierarchy of authorities (**soposha**), thus **Ayma ≅ teol + proecos + curis + soposha** (first equation).

As with the previous systems, the members of the *ayllus* seek "living well" in harmony with all and among all, **Suma Qamaña (Suqm)** in Aymara, which approximately equals the sum of material growth (**mg**), biological growth (**bg**), spiritual growth (**sg**) and the government of ecosystems (**gec**). Thus **Suqm ≅ mg + bg + sg + gec** (second equation).

The exercise of law in the life of the ayllus (**Lay**) approximately equals the harmonizing sum of family private law of the *sayaña* usufruct (**fpl**) and the combined law of the *saya-saraqa* (**clss**) and the community law of the *ayllu* (**cla**). Thus **Lay ≅ fpl + clss + cla** (third equation).

Finally, *Suma Qamaña* (**Suqm**) is found in the sum of the life of the *Ayllu Marka* (**Ayma**) and the exercise of the law of the *ayllu* (Lay), thus **Suqm ≅ Ayma + Lay.** This is the equation pursued by Aymaras organized in the *Ayllu Marka.*

On the historical process of the ayllu

While working in the Chambi Grande *ayllu*, we analysed the process from the **theoretical or ideal *ayllu***, relating it to the **evidence of the historical *ayllu*** and the **concrete contemporary *ayllu***. In order to understand the **trend or projection** of

the *ayllu*'s organization, we ask the following questions: Which structures are kept and which ones are changing? How can this model be not only ecologically sustainable, but also a contribution to human life? If this model is managed sustainably, is it possible to mathematically measure it? If so, how? Which are the components of the *ayllu*'s long-term planning?

Another important aspect is about the territorial scope of the *ayllu*. What is the optimum biomass amount over this territory? That is to say, how much human, animal and vegetable population can an ayllu's territory sustain? How can the equations **Suqm ≅ mg + bg + sg + gec** and **Suqm ≅ Ayma + Lay** contribute as factors of balance/harmony in the lives of the *ayllus*? These questions are to be explored in future research and invite us, Andeanists, to work resolutely.

On the structure of the Ayllu-Marka

The four pillars found in the work of the Ayllu-Marka - a) territorial organization (management and administration of continuous and discontinuous territories), b) productive systems and economy, c) complex cultural-technological fabric, d) socio-political system and the hierarchy of traditional authorities, crosscut by social action and the judicial system practiced by Aymara and Qhishwa people – provide a stamp/code of and Andean institution with systemic and holistic characteristics.

Historically, in the Ayllu-Marka, the following territorial spaces were defined:

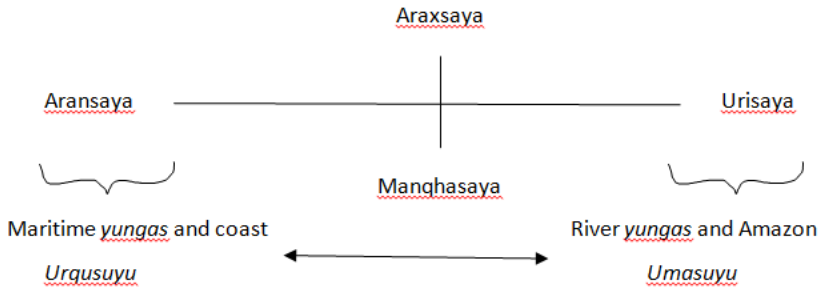
- The region of lakes and rivers in high altitudes, or *Titi* territories.
- The region of highlands and mountain ranges, or *Apu* territories.
- The region of coastal lands, or *Illa* territories.
- The region of Amazon forests, or *Qhapha* territories.

Structurally, we highlight that the interlinking of ecological levels of the *Ayllu-Marka* is defined over this base:

Water in high altitude	Highlands
Water in sea/forest	Lowlands

Alansaya Lands	
Titi *Pata alax quta* *Uraqi*	***Apu*** *Suni uraqi*
Masaya Lands	
Illa *Quta laka uraqi*	***Qhapha*** *Ch'umi uraqi*

The *markas* of these regions have their ayllus distributed in all these ecological levels:



Currently, this framework has suffered a break and a separation caused by the colonial process, reinforced by the agrarian laws of the republican system. In particular, coastal lands and the lowlands are now disconnected. That is to say that the people of the highlands have their wings cut. Still, the families of the *ayllus* subterraneously control the territories against these adversities, they do not renounce the reconstitution of these spaces, even though the *ayllus* call themselves communities in the low lands. They are aware that, because of external action, they have suffered a process of fragmentation and delegitimising, a territorial body dismembered in a similar way to

the bodies of its leaders.[7] Despite these challenges, however, the territorial reconstitution and its authorities remain latent, they appear from time to time as a proposed society model to the Bolivian process. The administrators (governments) of the Bolivian state do not want to understand – because of colonial prejudices – why this system is used and how it constitutes a life system of indigenous peoples. However, paradoxically, they seek the development of these peoples by classifying them as peasants, organised in unions in rural communities. Thus, they avoid discussing the issue of territory and recognising the collective subjective identity as the people's dignity, with full exercise of their rights. Why? Do human rights support indigenous rights? How long will the homogenization and civilization of indigenous peoples remain in effect? How is it possible to achieve their autonomy and self-determination?

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[7] Here, Yampara makes reference to the anticolonial struggle of Tupac Katari and Bartolina Sisa in the eighteenth century. After their defeat, these leaders were killed and dismembered, with their arms and legs being sent for public exposure in the four rebellious provinces to ward off future revolts (T.N.).

JUAN VELASCO[1]

Paradoxical wage policy trends: the cases of Uruguay and Chile[2]

The quality and trends of the policymaking processes in Latin America have been under permanent debate. A rich literature has pointed out different factors that have influenced policymaking since the return to democracy in the 1980s. Particularly important objects of debate have been the political and ideological predominant positions, like the neoliberal (1980s-1990s) and pink (2000s-2010s) waves (Castañeda, 2006; Roberts, 2007; Levistky and Roberts, 2011; Kingstone, 2011). It has also been pointed out the influence of the economic trends that the region has faced, and the internal economic imbalances that produced crisis and adjustments (Ffrench-Davis, 2000; Diez and Franschet, 2012; Haggard and Kaufman, 2012). Other issues discussed are more politically structural, like the balance of power under presidential regimes, how the structure of policymaking is set up between Government and Parliament or under Unitarian/Federal regimes, and the structure of political participation and the composition (fragmented/majoritarian) of political coalitions in Government or Parliament (Stein et al., 2008; Aninat et al. 2008; Sehnbruch and Siavelis, 2014). Finally, the debate also highlighted the importance of different stakeholders (i.e. business elites) and their influence in Latin American policymaking (Cook, 2007; Schneider, 2008; Karcher and Schneider, 2012). The overlapping of these issues are key to understand how policies evolve. However, even

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[1] JUAN VELASCO is a PhD student at King's International Development Institute. Juan Jacobo's interest is focused on wage policymaking and how democratic processes in Latin America have had a differentiated institutional impact. Before joining King's, he worked for the International Labour Organisation (ILO) based in Santiago de Chile from 2002 to 2013.

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though general economic, political and societal waves define a trend or direction, the differences in terms of magnitude and sustainability of policies among countries show there are idiosyncratic elements for explaining changes.

This has been the case for the discussion of social policies in the region. As several authors have observed, elements defined by political systems, predominant ideological ethos and historical processes –i.e. democratic transitions- influenced the policymaking arenas in Latin America for social policies (Castiglioni, 2005; Pribble, 2013). Pribble in particular highlights three important elements that shape the expansion of social policies: institutional legacies, electoral competition and party character. According to Pribble, these elements explain why the policymaking for reforming and extending education and social security policies in Latin American countries had different outcomes throughout their democratisation processes. Institutional legacies are linked to previous institutional frameworks that define the need of policy reform and the interactions with actors involved. Electoral competition expresses the importance of a parliamentarian majority in order to advance with the original policy project or, in case of having a parliamentarian minority, negotiate contents of policy reforms. Finally, the character of the coalition in power explains how strategic is the policy implementation and how coordinated are government agendas with their constituency.

The debate on the political elements that shape policy-making in the social policy sphere in Latin America is important because points out the relevance of several features that have been also present in broader discussions, such as the conditions of changes in Varieties of Capitalism (VoC). Part of the debate on VoC has been focused on the apparent inevitable transition from Coordinated Market Economies (CMEs) to Liberal Market Economies (LMEs)[3] without any feasible reversion of this process

[3] VoC literature distinguishes important relational and institutional differences among LMEs and CMEs. LMEs rely on markets and on a hierarchical firms' structure that shape economic actors relationships and coordination responses. In this context, labour markets have asymmetrical labour relations, characterised by employers' discretional power and low levels of collective agreements. On the other hand, CMEs embody a nonmarket coordination scheme that relies on collaborative relationships. In CMEs the structure of power within firms is less vertical due to more institutionalized negotiations, allowing relatively higher levels of collective bargaining, skill formation investment, and employers' coordination.

(Crouch and Farrell, 2004; Ebbinghaus, 2005). However, as several authors have noted, critical junctures and political processes led by different actors could produce counterforces that trigger reversions in the opposite direction. As Bogliaccini (2012) observes, Uruguay under Frente Amplio's governments has been an example of an opposite trend to the convergence towards LMEs in Latin America.

Pribble's model provides a potential conceptual framework to understand the *conditions* for a potential reversion from LMEs towards CMEs via policy reforms. Institutional legacies define the elements that require a reform and the distribution of power among different actors. Electoral competition the opportunity, via Legislative majorities, to implement more or less successful reforms, considering the importance of having (or not) parliamentarian majority. On the other hand, party character refers to two key issues of government coalitions: how they organize their agendas and how this agenda organization is mediated by their relationship with other actors involved in the policy-making process. On the basis of this conceptual model, we can hypothesise that the emergence of a political counterforce that aims to reverse LMEs to CMEs would require reforming institutional legacies –in this case, neoliberal- with a Legislative majority and a clear connection to their constituency agenda.

Pribble's theoretical discussion points out the importance of the political and institutional variables that affect the active use of social policies, a framework that could be extrapolated to the policy-making of wage policies as well. Wage policies – understood as the use of minimum wages and collective bargaining policies- in Latin America is an interesting area for applying these conceptual discussions. As it has been stated by different studies and publications (ILO, 2014; ECLAC, 2014), the region has experienced a clear trend: minimum wages have been increased consistently in the 2000s until mid-2010s. This active use of minimum wages was the regional norm even during the financial crisis of 2008-2009. However, this clear pattern contrasts with the relatively low use or extension of collective bargaining. This is due to two structural issues: a) even though regional formal employment has increased, informal employment is still important and represents almost half of total employment; and b) small and medium size companies concentrate the largest

amount of formal employment. Consequently, the space for extending the use and coverage of collective bargaining is still limited to medium/big size companies, a relatively small share of total employment in Latin America. Another constrain is the type of industrial relations institutions that were substantially reformed during the neoliberal wave in the 1980s and 1990s. These reforms decreased the political muscle of trade unions and increased the capacity of employers (private and public) to shape labour policies policy-making.

When evaluating these regional trends –active use of minimum wages, limited extension of collective bargaining- is important to consider the recent debate on the use of both policies. As Grimshaw and Bosh (2013) and Grimshaw et al. (2014) point out, the impact of wage policies should be considered in tandem, particularly the consequences of how connected or disconnected are minimum wages and collective bargaining. When both policies are appropriately imbricated, increases in minimum wages –that have an impact in poverty and income inequality of low-paid workers- have a spill over effect for higher income workers. Consequently, there are gains in terms of poverty and income inequality reductions for low and medium paid workers.

However, when minimum wages and collective bargaining policies are disconnected, the impact of wage policies decreases in at least one aspect: poverty reduction and/or income distribution improvements. An example of this limitation occurs when minimum wages are the policy that is actively used and collective bargaining is restricted. In this case, increases in minimum wages benefit low-paid workers but have no spill over effects along the rest of the wage scale because collective bargaining cannot transmit minimum wage increases to medium-wage workers. Consequently, increases in the minimum wage could help reducing poverty and improving income of low-paid workers but generating a higher proportion of workers gaining the minimum wage or less, with no major effects in increases in the median or average wages and with marginal improvements in income distribution. These consequences are crucial for the debates on income distribution in the labour market. Improvements in minimum wages are positive but insufficient. When not adequately connected to active collective bargaining policies, minimum wages increases are not replicated in higher wages and the ratio minimum wages/median wages (known as

the Kaitz index) tends to experience a raise. At the same time, income inequality tends to remain unchanged. When collective bargaining is low in coverage, there are no important redistributive effects in the medium part of the wage scale.

The cases of wage policies in Chile and Uruguay are clear examples of these debates. Throughout the democratisation process, Chile experienced a constant increase in minimum wages in real terms in the 1990s and 2000s. This active use of minimum wages was a motto for Concertacion[4]'s governments even during two recessive scenarios when external shocks (1999 and 2009) generated negative GDP growth rates. Conversely, Chile did not experience changes in its collective bargaining coverage all through the same period. The institutional legacy for wage policies arrived via Pinochet's Plan Laboral in 1980 that was maintained in its core during the democratisation process. Plan Laboral limited collective bargaining at company level, introducing other groups –different from trade unions- that could negotiate collective agreements. Pinochet's labour relations legacy also established a more rigid and bureaucratic system for wage negotiations. All these elements, during a dictatorial regime that persecuted trade unions, produced low levels of collective bargaining in the 1980s. However, during the democratisation process in the 1990s and 2000s, the collective bargaining coverage maintained similar levels to those observed during the dictatorship. After a brief peak at the beginning of the 1990s, collective bargaining decreased and stabilized at the 1980s levels.

The most important wage policy in Uruguay started in 1943 with Consejos de Salarios (Wage Councils), a collective bargaining instance institutionalised at economic sector level. Wage Councils expanded afterwards, including more sectors, but the political tensions at the end of the 1960s triggered the creation of a national minimum wage in 1969 as a way to limit Wage Councils and decrease trade unions' bargaining power. During the Uruguayan dictatorship (1973-1985) trade unions were banned, Wage Councils were deactivated and minimum wages followed a decreasing path in real terms. When democracy was reinstated in 1985, Wage Councils functioned again as an institutionalised bargaining mechanism that

[4] The ruling centre-left coalition from 1990 to 2010.

empowered trade unions participation. Nevertheless, when Uruguay implemented neoliberal policies at the beginning of the 1990s, Wage Councils were completely deactivated. On the other hand, minimum wages continued their decreasing trend in the 1980s and 1990s, becoming a marginal wage policy that covered less than 3% of formal work force in 2004 (Furtado, 2006). This situation changed with the arrival of Frente Amplio[5]: wage policies were enforced and used actively. Wage Councils were reinstated with a new institutional framework that generated a mandatory call for wage negotiations every two years at all economic sectors in Uruguay. This policy approach generated a progressive expansion in the number of sectors that negotiated wages, including rural and domestic workers. Such active use of collective bargaining was replicated with minimum wages. Since December 2004, minimum wages experienced a constant increase that almost triplicated their level in real terms from 2005 to 2015 (ILO, 2015).

Wage policies recent debates from the industrial relations perspective have not included the dynamics of changes from one type of wage policy connection –as described by Grimshaw et al. (2014) - to other. In part, this is the result of a more permanent institutional framework that characterises the industrial relations in more developed economies. This is also an outcome that emerges from the VoC discussion in those countries, where changes are gradual and sketched as an irremediable transition from CMEs towards LMEs. In that sense, what happened in countries like Uruguay and Chile is interesting because these experiences show that there are political processes that can produce (or not) changes in terms of policy reforms related to the type of socioeconomic structure; and that these processes can trigger a reversion of the inevitable CMEs-to-LMEs transition (Uruguay) or reinforce the LMEs transformation (Chile). These examples also show other elements linked to the importance of how the type of democratic transition shaped the policymaking in Latin American countries, and how the relationship between governments and trade unions or business elite influence the policymaking of wage policies.

[5] The ruling left coalition from 2005 to 2020.

In that regard, Pribble's model offers interesting possibilities for a better understanding of the different trajectories of wage policy-making in Chile and Uruguay. The influence of institutional legacies is clear in terms of the paradigm that guided wage policymaking debates: Wage Councils in Uruguay and Plan Laboral in Chile. These institutional legacies have shaped the debate on collective bargaining in both countries but with different patterns and origins. Whilst Wage Councils preceded the dictatorship in Uruguay, Plan Laboral was an artefact created by Pinochet's regime to shape labour relations under a democratic regime. As it has been discussed in the literature on democratic transitions (Linz and Stepan, 1996) Uruguay and Chile represented opposite paths in Latin American experiences: a disloyal transition where Pinochet's shadow was present in the institutional framework and policymaking -particularly with what was knowns as his "legado" (legacy) - in the latter; and a loyal transition that facilitated a rapid democratic reinstallation, in the former.

Therefore, what happened in both countries was shaped by a policy-making process that depended on the level of freedom that governments had to articulate their agendas and the urgency for implementing policy reforms. Thus, during the democratic transition Uruguay had periods of activation (1985-1991 and 2005-2017) or deactivation (1991-2005) of Wage Councils, and a clear trend of decreasing minimum wages until 2004 that was reverted that year. Both policies depended on the government's preferences and what was conceived as a policy need (particularly clear in 1985, 1991 and 2005[6]). In the Chilean case, the legacy for industrial relations did not experience major reforms considering the institutional infrastructure (Senadores designados), the power of business elites and the strength of the liberal ethos in part of Concertacion's governments. Consequently, the institutional legacy in Chile was a perfect lock in practical and ideological terms. The active use of minimum wages was the residual outcome of the restrictions for reforming collective

[6] Wage Councils were reactivated during the first Sanguinetti's (Partido Colorado) government (1985-1990) when democracy was reinstated. In 1991, during Lacalle's (Partido Nacional) government were deactivated as a measure to contain inflation. Wage Councils were reintroduced and reinforced during the first Vasquez's (Frente Amplio) government (2005-2010).

bargaining. It had perfect sense considering that minimum wages were a less influential policy for a better income distribution in the pay scale.

Party character is the second element in Pribble's theoretical framework that is useful for understanding wage policy-making. Pribble defines Concertacion as a centre-left "electoral-strategic" coalition, characterised by having a strategic view with a technocratic policy approach. Concertacion also dealt with all actors' agendas, trying to balance their demands. In that sense, even though Concertacion appeared as a voice for the demands of workers and trade unions persecuted during Pinochet's dictatorship, in reality it had to moderate their constituency demands in order to manage the democratic transition policy-making. Concertacion's governments were also affected by the demands of business elites and Pinochet's supporters that were ferocious defenders of what was called "his legacy": a neoliberal economic model that reflected a LME structure, with flexible-precarious labour markets and low taxes. As Fairfield (2015) points out, the economic importance (structural power) of well organised business elites and their close ties with the political system[7] (instrumental power) impeded changes in the Chilean low-taxes system. This outcome was similar for the other business elites' policy aim: no important reforms on the collective bargaining structure.

On the other hand, Pribble defines Frente Amplio as a left-wing "constituency-coordinated" coalition, characterised by the importance of their constituency agenda in formulating and implementing social policies. The importance of this relationship in the case of wage policies in Uruguay was crucial, considering the historic links between Frente Amplio and the national trade union confederation, PIT-CNT. The political growth of Frente Amplio and PIT-CNT during the democratic transition are consubstantial and key to define the programmatic characteristic of Frente Amplio. In that sense, what was observed is a learning process that framed the structure of labour reforms that Frente Amplio implemented in its first term, particularly with the reimplementation of Wage Councils in 2005 and the creation

[7] Particularly with right-wing parties but also operating with Concertacion.

of an institutional framework for supporting Wage Councils activities. These reforms were historic demands from PIT-CNT that shaped the contents and aims of Frente Amplio's governments. This link went beyond expectations considering that trade unions representatives were important part in Frente Amplio as members of Parliament and Government, especially in the Ministry of Labour. Therefore, Frente Amplio's commitment to PIT-CNT was not just programmatic: it was expressed in parliamentarian and governmental participation.

The third element of Pribble's model that helps to understand the different paths of wage policies in Chile and Uruguay is the existence of a Parliamentarian majority, or "electoral competition" in Pribble's terms. In the case of Chile, even though Concertacion won electoral majorities in the 1990s until mid-2000s, these victories did not imply a clear advantage in Parliament for facilitating policy reforms. The electoral system (known as "the binominal") benefited right-wing parties, allowing them to be overrepresented in both the Congress and the Senate. Despite it, Concertacion parties reached nominal majorities in the Congress. The problem was the Senate, due to the existence of Senadores Designados, a perverse political legacy that permitted 'Pinochetistas' to have a clear majority until this artefact was dismantled with the 2005 Constitutional reforms. The history of parliamentarian defeats in the 1990s over the idea of legislating a collective bargaining reform show the difficulties that Concertacion had in order to open the debate on this matter. The sense of an adverse parliamentarian environment also conditioned any deeper Concertacion's reform initiative in the 2000s.

As Pribble remarks, having a parliamentarian majority in both chambers allowed Frente Amplio to implement its social policy reforms without negotiating the core of those reforms contents. This was also the case with labour policies in general and collective bargaining in particular. The programmatic relationship with PIT-CNT established a clear agenda of policy reforms that was accomplished particularly during the first Frente Amplio term (2005-2010). Having a parliamentarian majority facilitated both the speed and success of collective bargaining policy implementation. It included the 2006 law and the extension of collective bargaining for other workers,

such as domestic workers[8]. In fact, the fast and successful implementation produced not just a redistribution of the policy influence from business elites to trade unions. It also implied an overturn from LMEs towards CMEs policies (Bogliaccini, 2012).

The discussion on wage policies in Chile and Uruguay offers a valuable framework for future research. It shows the possibilities that using the recent industrial relations perspective brings for the debate of public policies, particularly to enhance the wage policies policy-making discussions. It also offers an interesting object of study for Latin American wage policy-making. As it has been discussed throughout this article, the cases of wage policies implementation in Chile and Uruguay have similar explanatory narratives that other models -like Pribble's model to explain social policies expansion- use for understanding policymaking processes in other spheres. Even though the analysis has limitations in terms of number of countries, it highlights the importance of key elements for understanding the trajectories of policymaking in the region: institutional legacies, electoral competition and party character.

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A Review Article by Miriam Lang[1]

Degrowth - Unsuited for the Global South?[2]

This article offers an in-depth overview of the major discussions developed in the Fifth International Conference on Degrowth that took place in Budapest in September 2016. The conference gathered activists and academics committed to social transformation.

Hegemonic common sense suggests that a project as exotic as controlled economic degrowth is at its best applicable only in the geopolitical Global North while for the South, economic growth would be a requirement. Despite this, more and more voices are questioning the arguments that give economic growth a central place in political discussions, suggesting that this type of criticism could be liberating for many parts of the world (Max-Neef 1995; Latouche 2010; Altvater 2013; Muraca 2014; Gudynas y Acosta 2014; Lang 2016). The fifth international conference on degrowth that took place in Budapest, capital of Hungary, between the 30th of august and the 3rd of September 2016, revealed that reflections around degrowth are also a place of convergence for multiple transformatory narratives: from political ecology to ecological economics, considering also feminist perspectives that suggest the organization of society around a logic of care; from ideas of environmental and climate justice to policy ideas of universal and unconditional basic income. In this way, degrowth constitutes an additional contribution from a new internationalism, a contribution that seems necessary for interventions from the plural left over the globalized world. This internationalism is not limited to solidarity practices in struggles that take place in faraway places, but instead, it looks for convergence, as well as

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[1] Miriam Lang is a professor at the Global and Social Studies area in the Universidad Andina Simon Bolivar (UASB) in Quito, Ecuador.

[2] This article has been translated by Diego Silva and was originally published in http://www.alternautas.net/blog/2017/7/17/degrowth-unsuited-for-the-global-south on July 17th, 2017.

complementarity and reciprocity between transformatory struggles that are contextualized and diverse.

Six hundred people from Europe and from other continents participated in this academic event at the Corvinus University in Budapest. The Degrowth Week took place in parallel to this event in different parts of the city, open to the Hungarian public and presenting a high level of attendance. The Degrowth Week had as its purpose to show how degrowth can be put into practice. For example, it included the distribution of still edible groceries that hotels, supermarkets, or big businesses throw away to the numerous homeless people of the city. This is a task carried out by the organization Budapest Bike Mafia that combines social justice with a struggle against waste production in modern capitalism. Another example are cooperatives that bring farmers' products to the city, that not only sell their products at a fair price, but that also offer catering services and organize courses about how to produce marmalades and other preserves. This is an example of traditional knowledge that has been increasingly lost since the violent introduction of capitalism to post-1989 Hungary.

Eastern Europe: degrowth in the semi-periphery

The degrowth conference not only allowed discovering and supporting an unknown Hungary that remains hidden behind the authoritarian and xenophobic figure of Victor Orban's government, but also invited to reflect about the current state of Eastern Europe, understood as a semi-peripheral region. While Eastern Europe shares many aspects with Latin America, it remains virtually invisible in our debates as well as in the debates of core countries of the capitalist world system.

Yet, the connections have always been present. In the conference, Szandra Koves from Budapest asked: "How can we talk about degrowth in a region that looked with jealousy to the consumer possibilities of the western world, when it was part of the soviet block, and that associated consumerism with freedom?" Koves recalled the long queues where she had to line up when she was a little girl just to obtain a few plantains

or oranges, whenever a shipment from these exotic products occasionally arrived from Cuba.

After the fall of the Berlin Wall, the development discourse began to colonize minds in the region establishing as the goal to reach the level of capitalist development of the neighboring country of Austria. Today, 25 years later, these narratives are crumbling for the younger generations. Hungary suffered from a severe crisis around the year 2008 to which the social democrat government responded with drastic austerity measures and violent repression. Until then, Hungary had not experienced state violence since Stalinism crushed the 1956 popular uprising with military tanks. Today, it is clear that "Austria is not the panacea that they made us believe—it was all a mirage," clarified in the conference the Hungarian Economist Zoltan Pogatea.

Making visible the *'mal vivir'*[3]

The degrowth movement's dissatisfaction with the Global North's lifestyle is evident. This lifestyle, however, is usually portrayed as the goal of development, the *locus* of self-realization. However, this accelerated life rhythm is suffered even by those who have had the privilege to be included into modern capitalism. It is often leading to burnouts, depression, and physical diseases that are rooted in high levels of stress and that are reaching epidemic dimensions (a fifth of Germans suffer from anxiety in ways that prevent them from having a normal life; in the US, two thirds of the work force, more than 45% of medical doctors, and almost 70% of finance professionals have

[3] Note from the Translator: A literal translation of the expression 'mal vivir' in Spanish, would be 'bad living'. However, in Spanish, it is significance goes beyond that. 'Mal Vivir' makes a clear reference, and opposition, to the debates on 'Buen Vivir' or Good Living, that have dominated discussions of development and political ecology in Latin America over the last decade. Overviews of these ideas have proliferated in academic and policy circles. See earlier articles in Alternautas on these issues such as: Waldmueller (2014), Guardiola & García Quero (2015), Beling & Vanhulst (2014), Chambi-Mayta (2015) or Iamamoto (2015).

suffered burnouts);[4] the US and France are amongst the populations with the highest levels of depression in the world, while Japan and South Korea lead the ranking of suicides per capita.[5] Degrowth debates include discussions about the negative consequences brought by the exacerbated competition and individualism prevalent in today's social relations – a distress caused by the desire of transformation. These debates include discussions about the consequences of an exponentially increasing inequality that prevents many from participating in the promise of consumerism. A big majority of those who migrate to the North, in spite of the discrimination and social exclusion that they experience, often tell stories of success and happiness to their families back home. So powerful is the narrative of development that it even encourages these migrants to lie to their relatives and close friends. The individual adjudication of responsibility for failure, in a context plagued by structural adversities, results in personal shame and loneliness. This is the other face of the "American dream".

In her intervention, the Croatian political scientists Danijela Dolenec argued that Eastern Europe is experiencing today the violence of this dual narrative; a narrative that confronts Western Europe and liberalism with traditional societies, which are supposedly doomed to disappear. Instead of learning from the not-so-orthodox Yugoslav Socialist experiences that were lived under the rule of Josip Broz Tito, for example, these experiences remained invisible in the years that followed the fall of the Berlin wall. "The socialist project was represented as a gigantic aberration in the way to modernity", Dolenec argued. Today, at least in Croatia, this hegemonic view is breaking down in the midst of a crisis and a new generation of young intellectuals is looking for other ways out. Under the debris of the Yugoslav wars (1991-2001), other ways of life can be found that have the potential to inspire the construction of

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[4] Ninck, M. (2015) 'The German Workforce Has a Burnout Problem' *Business Journal*, available at http://www.gallup.com/businessjournal/184106/german-workforce-burnout-problem.aspx; Statista (2017) 'Stress and burnout - Statistics & Facts' Available at http://www.statista.com/topics/2099/stress-and-burnout/

[5] The Economist (2007) 'Jobs for life' available at http://www.economist.com/node/10329261; McMillen, M. (2011) 'Richer Countries Have Higher Depression Rates' available at: http://www.webmd.com/depression/news/20110726/richer-countries-have-higher-depression-rates#1

alternatives. For example, there is a wealth of practical experience (negative and positive) related to self-management at difference scales and there is also a "socialist culture" of time that cannot be understood through the lens of productivity pressures and that allows for conviviality. This is also seen in the resilient persistence of exchange and production practices directed at self-consumption and barter that take place outside of the market realm. To conclude, Dolenec stated that the left is confronting today two fundamental challenges: the construction of policies of equality that are neither productivity-oriented nor extractivist, and the development of social alternatives that assign a central place to the creation and recovery of the comments, that underscore care as an axis of human coexistence.

The South is not obliged to just grow

The conference highlighted the need to deconstruct the myth according to which it is first necessary to reach certain level of welfare (understood in the hegemonic discourse as the proliferation of capitalist relations in the way of life) and only then it becomes pertinent to pay attention to gender issues, environmental sustainability, etc. Multiple panelists, such as the ecological economist Clive Spash, stated that economic growth is not the solution for the Global South either: this economic model mainly produces inequality and "*mal vivir*" transforming cities into polluted monsters and turning relatively self-sufficient rural communities into dependent ones. It is necessary to understand, Spash stated, that the material wellbeing of a minority that has managed to climb up the social ladder to the middle class is only possible at the expense of a majority of the population that remains in poverty (Spash 2017). This intensifies what the political scientists Ulrich Brand from the University of Vienna denominated "the imperial way of life": a way of life that takes for granted the unlimited access of a small minority of people to the planet's resources as well as the planet's capacity to absorb waste and pollution (Brand 2013). This way of life can clearly not be expanded to include all the population of the South. Instead, it requires an outside from where cheap labor and raw materials can be extracted and where waste can be disposed of. While this way of life expands throughout the planet,

the planetary crisis and the competition for access to resources between countries becomes more acute, for example, between the old capitalist centres and emerging countries such as China and India. The result is a perverse struggle around the so-called "right to pollute", as exemplified by the COP conference on climate change.

The idea is not to impose the concept of degrowth to the Global South as a transformatory proposal originated in the North, as it has often happened with regards to knowledge production. Rather, as suggested in the book *Degrowth – a vocabulary for a new era* (2015) written by Giorgios Kallis, Federico Demaría, and Giacomo D'Alisa from the Barcelona Research & Degrowth group, it is about opening a conceptual space for countries and cultures in the South to find out what they consider to be a good life. Degrowth is not only about politicizing sustainability, as explained by Federico Demaría in Budapest. Its emphasis is not only in *less* but also in *another way*: in addition to intervening upon the flux of metabolic matter in the planet, it encompasses a different vision of how social relations should be organized, oriented for example by the ideas of *conviviality* of Iván Illich (1973) and by alternative narratives of good life. According to the Italo-German philosopher Barbara Muraca (2014), the degrowth transformation must touch the social, institutional, and mental infrastructures, that is, the subjectivities that are oriented towards linear growth as produced by capitalist modernity.

The pioneers of degrowth are scholars from the 1970s such as André Gorz and Nicholas Georgescu-Roegen (Gorz 1991; Georgescu-Roegen 1979). The concept regained relevance first in Western Europe at the beginning of the new millennia fuelled by the work of the French scholar Serge Latouche (2010). Nowadays, there is a broader and diverse degrowth community whose more important loci is located in Germany, Spain and France, but also represented by the anti-authoritarian movement in Greece that emerged from the crisis, and by various collectivities and experiences in Italy, Switzerland and Canada.

How to establish limits and respect them: the intersection between ecology and democracy

In his intervention, Giorgios Kallis from Greece warned of the dangers of the discourse known as "respecting the limits" (ecological limits, the limits of the planet, etc.) by taking into consideration the ideas Garret Hardin's (1993) *Living within limits,* author also of the famous book *The tragedy of the commons* (1968). In order to reject the idea of unlimited migration Hardin relies on a scientific equation to establish a set of targeted ecological limits for a given territory. He establishes the notion of migrant "absorption capacity" in a particular national territory – a very heated current debate in Europe and in the United States. Kallis refuted the metaphor of the boat in the sea that is forced to avoid saving more people because of the risk of sinking. The limits of the planet are global, or at most, they are eco-regional, but they do not obey to the logic of the nation state, Kallis continued. What really influences ecological capacity is not so much the absolute quantity of people but rather their way of life, the qualitative aspects of life. Besides, migratory flows to core countries tend to reduce fertility rates. Thus, "instead of closing borders we have to understand the factors that lead to population increase" said Kallis, who like most part of the degrowth movement, rejects the biopolitical control over women's fertility as a way of intervening in population rates.

The debate about who establishes the limits and how they are delineated is however very complex. The answer is located at the intersection of ecology and democracy because these limits are not merely clear-cut objectives to follow, but rather, they are established through political and social deliberation. Who has then the authority to establish these limits and implement the necessary policies to enforce them? Do we have to rely on a handful of scientific experts that use mathematical projections and equations that are often questionable? Would this not lead to some sort of eco-dictatorship that could not possibly bring a solution? Alternatively, do we rely on the figure of national governments who have repeatedly proven to be incapable of carrying out this task, as shown by the climate change conferences? Or is it maybe the responsibility of society as a whole? If yes, under which mechanisms? This leads

to the question: What are the necessary criteria to democratize the societal relations with nature?

The role of the State in the transformation: an open debate

In Budapest, like in other places of the world where the multidimensional transformation of our societies is discussed (for example, transformations related to class, race/coloniality, and gender dimensions, as well as our relation to nature), it was highlighted that one of the greatest challenges of the degrowth movement is to understand the role of the state in this transformation. Recent Latin American experiences have shown the relevance of something that was already known in Eastern Europe: that the State as a privileged actor of transformation ends up reifying relations of domination and stabilizing processes of capital accumulation, instead of transforming them. The State, as a product of social relations, reflects the power struggles that exist in our societies today without fundamentally changing them. Instead, the state often transforms the transformers demanding them to respond to certain rules and logics that are characteristic of state institutions but that obstruct transformational processes.

At the conference, this was the topic of a forum about institutional transformation that explored, for example, the experience of the current municipal government of Barcelona. There, a coalition of social movements and leftists parties took control in 2015 under the leadership of Ada Colau, an activists of the Platform of People Affected by Mortgages (PAH, for its acronym in Spanish). A study carried out by Viviana Asara showed the great challenges that emerge once these projects enter the institutional sphere: lack of deliberation, the danger of delegating responsibility to elected officers, and the difficulty of maintaining collaboration with them, given the relentless pace of governing. In another example, the Greek experience also revealed the limits of top-down transformational processes after the betrayal of the 2015 anti-austerity referendum democratic results. Danijela Dolenec argued that this revealed the fact that Europe is in a post-democratic context, as defined by the British political

scientist Colin Crouch (2004). Under these conditions, is it possible to think of bottom-up type of transformational processes that ignore the state?

For Ashish Kothari this approach seems to have worked for some social movements in India. They have decided to ignore the central government at the regional level and to establish strategies of self-governing. Kothari described the impacts of development in India as violence: hundreds of millions of people have been separated from their livelihoods (means of life or sustenance) to enter the labour market. "The need to find employment is just a tale that obscures other existing ways of living," Kothari stated. As a consequence, people in rural India today eat less than 40 years ago, air pollution kills half a million people annually, and millions of peasants commit suicide every year (more than 18.000 only in 2004). According to Kothari, the various processes of rural revitalization and eco-regional self-governing that have emerged are alternatives proving that rural-urban migration flows are not inevitable. Instead, many people in India are returning to the countryside in regions where they can now find dignifying living conditions. These alternatives are based on the concept of *swaraj*, which was established by Mahatma Gandhi and associates self-control with the freedom, not only of the self, but also of the rest of the community.

In the debate, feminists asked if returning to more traditional ways of living would come to the detriment of women's autonomy and freedom. Given the enormous cultural diversity and wealth of traditional ways of life, as it was mentioned before, sustaining this would be shortsighted and such an affirmation would assume that the capitalist/modern way of life has effectively freed women, an assumption that was criticized by many of the participants.

Technology: a problem or a solution?

Another aspect that was left open in the conference was the role of technology in the transformation. While the adepts of Green capitalism state that the environmental crossroads at which humanity has arrived can find a solution through technological means, Tomislav Medak from Croatia called this idea into question. His first argument points at the structural inequality with regards to technological

development that exists between the North and the South: in the South, the reduction of costs in the extraction of natural resources and labour still relies on the use of less-advanced technology, in an attempt to externalise the costs. Green capitalism is not a global solution because it can work in a country or a region of the planet but only to the detriment of others. His second argument is that technological innovation usually addresses problems posed by existing systems. This means that it is very difficult to develop technologies that are completely decoupled from production, and yet, this is exactly what a degrowth based society requires. How to prevent collaborative technologies from being reduced to circuits of capital accumulation?

The conference of Budapest, of course, did not offer answers to all the challenges faced by the transformational process towards a degrowth society. Important elements to this process include: a radical diagnosis of our current situation, the construction of a set of orienting principles, as well as the visibilization of spaces for social experimentation that exist at the margins of European societies. However, what is more pressing is the construction of strategies that help to expand the degrowth perspective throughout society in ways that allow for a real emancipation from the coercions of capitalism.

Degrowth and Latin America?

As argued by Eduardo Gudynas in various places[6], the notion of degrowth in the Global South amounts only to a provocation. For this reason, the Uruguayan ecologist thinks that the idea has low power of mobilization. The hegemony of the development/underdevelopment dichotomy is still deeply anchored in Latin American social and collective imaginaries. However, the degrowth provocation – for which some authors have considered the notion as "palabra-obus" (Ariès 2005) – is in fact part of the strategy of some of its activists, also from the North. They seek to dislocate and motivate discussions, invite to reflection and open spaces of debate that

[6] See for example, Gudynas' intervention here: https://www.youtube.com/watch?v=sJ5Bae6410A - (Note of Translator: Gudynas has also published in Alternautas before on this issue, see Gudynas (2014).

go beyond the guidelines drawn by the imperative of growth, development and progress. In Latin America, the paradigm of "Buen Vivir" opened fields of debate that call into question the hegemonic notions of welfare and the good life, as well as the predatory relations with nature that are imposed by the capitalist/modern/western pattern of civilization.

Today, it is clear that the type of development that encourages the Global South to imitate the path of the North cannot lead to welfare but to socio-ecological collapse. In this sense, the societies of the South also need to have a debate about which economies should grow and which ones degrow – or in a more radical way, ban economic growth as a universal parameter.

In practice, in Latin America multiple experiences correspond in various dimensions to those associated to degrowth in the North. In Spain and other European countries many people are returning to the countryside to what were previously abandoned towns. Many people are also recognizing the advantages of living a rural lifestyle that is partially self-sustainable, in the context of the eco-village movement.[7] These people are celebrating their independence from the State and from the services that it provides and are experimenting with alternative ways of conviviality, free education, etc.

In Latin America, many communities are resisting the expulsion out of the countryside – an encroachment carried out by infrastructural mega-projects and projects linked to extractivism. They are revalorizing agricultural production and subsistence production in their discourse as well as local and regional commercialization, local practices and cosmologies, and the possibility to have a harmonic relationship with nature. These communities seek different levels of autonomy from the state, depending on the context and based on their own ways of living, knowing and educating. They are focused, although they not always put it in these terms, on the recovery or preservation of the commons, the construction of a balance with the natural surroundings, the valuation of conviviality and care, and a

[7] See another example in the 'Rodando el Cambio' documentary, on the Eco-villages movement, here: https://www.youtube.com/watch?v=ZT14cOZVDmA

paradigm of welfare that is at the margins of consumerism, liberal individualism, and capitalist logics of accumulation. This is exemplified by experiences such as the *'Congreso de los Pueblos en Colombia'* (Houghton 2015), experiences of indigenous autonomy in Bolivia (Exeni 2015), and the *comunas* of Venezuela (Freitez y Martínez 2015), as well as the Zapatist autonomous region in Chiapas (Lang 2015). In a way, while in Europe attention is focused on the recovery of similar spaces, in Latin America we are still concerned with their preservation from capitalist advances. The ideas discussed in Budapest are a good basis, without a doubt, to debate different concepts and perspectives from where to build North-South alliances.

See more information on the conference and the Degrowth movement in general in here: http://budapest.degrowth.org/

http://www.degrowth.de/es/blog/

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