Seed saving and seed sharing: countermapping a liminal legal space

Notes to go with slides

Slide 1

I first linked with academics in Colombia in 2018 when at a week-long series of 'walkshops' about restoring and maintaining natural and social capital through social innovation in Latin America. Courtesy of some Erasmus plus and GCRF funding, I have since been working with Diana Rodriguez-Herrera of UTP, who is unable to be with us today, but will be on the webinar (Hola Diana!).

Diana is currently documenting case studies as part of a postdoctoral research project, 'Transformation and Associative Initiatives in Andean Communities', among which several environmental justice concerns have emerged, some of them linked to the implementation of seed laws.

Thus, the project between myself and UTP in its first stage sought to identify relevant laws and any related cases in which these laws have been enforced, and the translation of a summary of the respective judgments into English. This then progressed to some initial fieldwork, speaking to small scale farmers and seed producers in Colombia and the UK about their practice.

This paper is co-written by myself and Diana and shares some of our initial thoughts.

Slide 2

Seeds hold data about the past that is fundamental to the present, vital to our future and are caught up in a political and legal maelstrom.

The policies of place centred on seed is an apt methodological situation in which to observe the limits of capitalism, which take the form of:

- Social problematic – due to the problem of equity
- Environmental problematic – due to the recent trajectory towards genetic uniformity and reliance upon high input / high mechanisation / long and complex supply chains
- Cultural problematic – due to homogenization
- Legal problematic – due to the restrictive global governance of seed and the ensuing liminal legal space occupied by seed savers and seed sharers

From what has been discussed, particularly with regard to the unsustainability of sustainable development, and the observations Diana and I make about the international seed laws, the current global governance legal framework is in crisis.

We caution that whilst situating environmental problems as ontological problems of being, that it has conceptual and methodological gaps from an anthropological perspective, similar to those of the concept of culture. Building empirical evidence is key to avoiding romanticising indigenous or Andean ontologies and epistemologies, where 'buen vivir (good living) tends towards the ideological.

The value of seeds has never been in any doubt, but an appreciation of the importance of genetic diversity and the risks associated with a monocultural and genetically stable approach to farming seed, coupled with an understanding of the fundamental need for biodiversity in the soil, and a focus on plant neurobiology,[1] it seems is only recently being (re)understood / (re)discovered.

Diversity runs counter to the market forces aligned to the green revolution and the dominant legal framework. The advent of agricultural modernization saw high-yield commercial seeds being improved and standardized. The commercialization of seed at scale and its control has led to an unprecedented loss of genetic agrodiversity and resilience in farming practice across the world. Reliance on high input methods degrades soil quality, complicates and lengthens supply chain issues, creates a situation in which farmers are indebted, undermines food sovereignty and creates food insecurity.

The genetic knowledge of seeds – accumulated over thousands of years – has been commercially concentrated in a few specialized high-tech companies, which began to differentiate seeds and claim intellectual property rights over genetically improved cultivars, especially transgenic (GM) ones.

Instead of in-situ genetic diversity and crop resilience in the field, diversity is more commonly the domain of ex-situ preservation in seed banks.

In this contemporary context, seeds have begun to be classified institutionally according to the intellectual property they contain, forming a continuum that goes from transgenic/GM to "native" seeds, passing through "creole", "peasant", "patrimonial" seeds, "cultural", 'heritage' and a whole range of adjectives. Adjectives that have been emerging from small scale farmers and activists to name the historical genetic agrodiversity that risks being erased, or situated in a liminal legal space.

Slide 3

This has led us to the present day, where from India to South America, farmers have taken their pick forks from the field to the street, to protest against restrictive laws that criminalise practices they have been engaged in for thousands of years.

We propose that through daily seed management and seed sharing practices, farmers and their seed occupy a liminal legal space, as resistance to the invasion of agribusiness.

[1] Amy Fleming, 'The secret life of plants: how they memorise, communicate, problem solve and socialise', The Guardian, 05 April 2020, discussing the work of Stefano Mancuso, https://www.theguardian.com/environment/2020/apr/05/smarty-plants-are-our-vegetable-cousins-more-intelligent-than-we-realise

Although the current global seed regulation regime seeks to reduce the risk in the harvest forecasts of large producers, it introduces legal uncertainty about ancient, cultural and climate friendly agricultural practices of free handling of seeds, which is currently usually the domain of small-scale farming and organic farming. It also supports an industrial agro-technology approach to farming with serious adverse consequences – as stated, for the health of the soil via reliance upon high inputs, expensive machinery dependent upon fossil fuels, and a system in which farmers become indebt to large scale MNC seed companies.

We suggest that the local spaces of management of seeds and a diverse, polycultural approach to farming, described variously as agroecological, nature-friendly farming and regenerative farming, emerge as counter-maps of resistance to the global governance regime of seed as encapsulated by UPOV (International Union for the Protection of Plant Varieties) and related national legislation.

Slide 4

On the left (Oxford Languages) / On the right – Victor Turner

The concept of liminality and the liminal space is commonly associated with the field of anthropology. In situates people and practices in 'in-between' spaces. They defy categorisation based on fixed approaches by eluding or slipping through 'the network of classifications that normally locate states and positions in cultural space', meaning that '[l]iminal entities are neither here nor there; they are betwixt and between the positions assigned and arrayed by law, custom, convention, and ceremonial'.[2]

Legal scholarship has applied the idea of liminality to uncertainty in the context of an individual's documented or undocumented immigration / migrant status, and with regard to the regulation and law of human health research.[3]

Legal 'fuzziness' of seed – term used by **Diego Silva Garzón and Laura Gutiérrez Escobar** whereby legal fuzziness takes place at the level of legal implementation.[4] They note that, 'farmers refer to non-certified cotton seeds as 'fuzzy seeds'' because seeds are covered by a natural fuzz that comes from a layer of lint that is removed from commercial seed. But out

[2] Victor Turner, The Ritual Process: Structure and Anti-Structure (Aldine Transaction 1969), 95, cited by Graeme Laurie, Liminality and the Limits of Law in Health Research Regulation: What are we Missing in the Spaces in-Between?, *Medical Law Review*, Volume 25, Issue 1, Winter 2017, Pages 47–72, 55.

[3] Re immigration / migrant status - See for example, Chacón, Jennifer M., 'Producing Legal Liminality', Denver University Law Review. 2015, Vol. 92 Issue 4, 709-767; King-Irani, Laurie., (2006) Exiled to a liminal legal zone: are we all Palestinians now?, Third World Quarterly, 27:5, 923-936; and Menjívar, Cecilia., Liminal Legality: Salvadoran and Guatemalan Immigrants' Lives in the United States, *American Journal of Sociology*, Vol. 111, No. 4 (January 2006), pp. 999-1037.
Graeme Laurie, Liminality and the Limits of Law in Health Research Regulation: What are we Missing in the Spaces in-Between?, *Medical Law Review*, Volume 25, Issue 1, Winter 2017, Pages 47–72

[4] Diego Silva Garzón & Laura Gutiérrez Escobar (2020) Revolturas: resisting multinational seed corporations and legal seed regimes through seed-saving practices and activism in Colombia, The Journal of Peasant Studies, 47:4, 674-699, DOI: 10.1080/03066150.2019.1668780

in the field of a farm with someone from Bayer's team, **Gutiérrez** found blue coloured 'fuzzy' seeds. Indicating that farmers were colouring their conventional seed to foil inspectors.[5]

To observe how this liminal legal space is occupied and these counter-maps are built, we present the case of two contrasting approaches that have emerged in the last decade or so, one located in Colombia and the other in the United Kingdom.

In both places, farmers respond to the problem of genetic erosion derived from agricultural modernization, framed in the context of neoliberalism. In Colombia, agricultural modernization was introduced from the 1970s and since 2007 the legislation allows transgenic/GM crops. Currently in Colombia, agricultural subsidies are meagre and organic farming is not easily accessible to small scale farmers.[6] In the UK, GM crops are not grown commercially, although GM crops are consumed via animal feed,[7] and following a government consultation on the use of gene editing, there are legislative changes to support research involving GMOs where the modification could have occurred naturally or by the limited use of certain techniques.

Nonetheless, farmers have been operating within increasingly mechanised and monocultural processes and heavily dependent upon farm subsidies. Organic farming is strictly regulated and expensive in terms of certification, compliance with crop rotation processes, and yield.

Slide 5 (seed packets)

Our particular focus in Colombia is on one of the nodes of the Free Seed Network of Colombia (Red de Semillas Libres de Colombia– RLSC) that works in the Cañamomo and Lomaprieta Indigenous Reservation. This network arises in response to the entry of transgenics into Colombia, under the support and advice of the NGO Swiss Aid. A group of indigenous farmers, concerned about GMO contamination of their corn varieties, made use of their constitutional rights to promote the legal recognition of their reservation as a "GMO-free territory" (Resolution 2018/2009).

From this milestone, this group of farmers have continued to promote – on the one hand – the practice of agroecology within their reservation, which is otherwise highly influenced by agricultural modernization. On the other hand, they have specialized in the production, storage, exchange and distribution of native and Creole seeds, of interest for organic farming. Currently, they are working on the formation of a school of farmers specialized in seeds, who can continue reproducing the knowledge of their seeds that they have been recovering and making visible for more than a decade.

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[5] Diego Silva Garzón & Laura Gutiérrez Escobar (2020) Revolturas: resisting multinational seed corporations and legal seed regimes through seed-saving practices and activism in Colombia, The Journal of Peasant Studies, 47:4, 674-699, 680, DOI: 10.1080/03066150.2019.1668780

[6] Sonia Camila Pardo Gutiérrez, Víctor Manuel Castillo Girón, Suhey Ayala Ramírez, Organic Certification System: Opportunities and Limitations for Smallholder Farmers in the Central Region of Colombia, Revista Internacional del Mundo Económico y del Derecho Volumen XVII (2019) Págs. 13-36 http://www.revistainternacionaldelmundoeconomicoydelderecho.net/wp-content/uploads/RIMED-Pardo.pdf

[7] 'GM crops and foods in Britain and Europe', Gene Watch UK, http://www.genewatch.org/sub-568547

However, in order to circumvent the restrictions that only seed that is certified can be commercially sold, they have devised the approach shown here on these seed packets:

Pic 1: This seed is not a commercial product, the cost is what the custodian is recognized for his effort and dedication to produce it

Pic 2: La Casa de las semillas is a meeting place for custodians of native and creole seeds, who recover, conserve, produce and exchange agroecological seeds; they are the heritage of the peoples to strengthen the culture and good living of indigenous communities

(La Casa de las semillas es un espacio de encuentro de custodios de semillas criollas y nativas, que recuperan, conserven, producen y intercambian semillas agroecologicas; que son patrimonio de los pueblos para fortalecer la cultura y el buen vivir de las communidades indigenas)

The key matter here being that when someone acquires a packet of these seeds, it is not the seeds they buy, but the custodianship that they contribute to.

Slide 6

In the UK, rather than a group or network of farmers, we speak of a pioneering individual: John. It was whilst working in Oxford University's Museum of Natural History that John acquired a box containing straw that had come from the thatched roof of a medieval house. He saw around 20 different kinds of wheat, much longer than the commonly grown wheat of today, with each ear being different. This marked the start of his journey to seed banks and farmers across the world to try and recover and rebuild what he calls a heritage wheat, a hardy landrace.

Driven by his knowledge that 'the obsession with selection/purity/yield/high input production… has led to the collapse of traditional farming and farming communities everywhere'

But for John, like the people of the Casa de las semillas, selling his seed commercially is not an option because it fails to meet the legal DUS criteria. Those growing crops using genetically diverse seed cannot sell their seed commercially – it does not meet the DUS criteria.

His way around this is via a 'seed user agreement' to allow other farmers to use the seed, under his careful guidance. He remains the owner of the seed, thus avoiding the legal transfer of ownership problem (See below for JL comments Heritage Grain Trust website).

You can see the height difference between the heritage grain and the standard commercial grain.

The grain then goes to an artisan distillery in Oxford that prides itself in being one of the a small handful of grain to glass distilleries, out of hundreds of distilleries in the UK. And one that will only source grain grown within a 50 mile radius of its premises in Oxford.

Slide 7
John experiments with crops other than just wheat, here is an example of his maize / corn – and where it goes!

Slide 8

In the Age of the Anthropocene, liberalism has prospered as a means of pursuing and protecting individual liberties and freedoms, be they economic, social, or cultural, from state and institutional interference.

However, principles of liberalism have supported the emergence of a neoliberal paradigm contributing to environmental risk and degradation. Too often, 'development' policies and practice involving the extractive industries and agri-business have presided over the use of, and value attributed to, land and ecosystems.

In tandem, the Green Revolution and food security rhetoric has supported the advancement of transnational corporations. This has seen ever-greater investment in and reliance upon high input farming and homogenisation via transgenic and genetically modified organisms and F1 plant varieties.[8]

In this context, an exclusionary legal regime complex has developed to prioritise individual property rights over global commons, peasant rights, and indigenous ontologies. The result is an anthropocentric mapping and valuation of land based on monocrop yield, upsetting environmental dynamic equilibrium and ecosystem resilience. Soil is increasingly exhausted and degraded, its natural life source of diverse flora and fauna and pest control depleted, and previously biodiverse landscapes rendered monocultural (waste)lands.

Further, at an international governance level, we are presented with two systems that conflict.

Incompatibility between UPOV 91 and the ITPGRFA when it comes to the right to save, use, exchange and sell farm-saved seed and other propagating material, and the enforcement of UPOV is said to be more strict than ITPGRFA.[9]

Slide 9

The formal seed sector is regulated by a certification structure that aims at ensuring genetic, physical, physiological and phytosanitary characteristics of seeds. The informal is one in

[8] 'F_1 hybrids, which are largely annual and vegetable cultivars, are produced by crossing two stable seed lines (called inbred lines) that give rise to especially uniform progeny that possess good vigour, yield and other properties. Tomato 'Cristal' F_1 and sunflower 'Harlequin' F_1 are examples of F_1 hybrids', see 'F_1 hybrids: Gardeners often wonder why hybrid seeds are relatively costly and question whether their performance justifies the price. Another common question is whether seed saved from F_1 hybrids is worth keeping', https://www.rhs.org.uk/vegetables/f1-hybrids

[9] highlighted by Olivier de Schutter, former UN Special Rapporteur on the Right to Food – 'The right to food: Seed policies and the right to food: enhancing agrobiodiversity and encouraging innovation', UN doc. A/64/170, 2009, p. 16.

which the farmers look after the quality of seeds, without the surveillance of control bodies. The informal system includes farmers saving part of their past harvests and exchanging seeds with other farmers (all certified seed is produced by companies). (Runs counter to informal seed sector in Colombia.[10])

UPOV - International Union for the Protection of New Varieties of Plants

Defn Breeder: '"breeder" means 'the person who bred, or discovered and developed, a variety' or their ER or successor (Art 1 defns)
Art 6 novelty 'The variety shall be deemed to be new if, at the date of filing of the application for a breeder's right, propagating or harvested material of the variety has not been sold or otherwise disposed of to others, by or with the consent of the breeder, for purposes of exploitation of the variety'
Art 7 Distinctness 'The variety shall be deemed to be distinct if it is clearly distinguishable from any other variety whose existence is a matter of common knowledge at the time of the filing of the application.'
Art 8 Uniformity 'The variety shall be deemed to be uniform if, subject to the variation that may be expected from the particular features of its propagation, it is sufficiently uniform in its relevant characteristics.'
Art 9 Stability 'The variety shall be deemed to be stable if its relevant characteristics remain unchanged after repeated propagation or, in the case of a particular cycle of propagation, at the end of each such cycle.'
Trade agreements and UPOV membership – 78 members, inc Colombia (UPOV 78 in 1996) and UK (1968, then UPOV 91 in 1999)

Slide 10
International Tretay on Plant Genetic Resources for Food and Agriculture (ITPGRFA) adopted FAO Conference 2001, into force 29 June 2004.

Number of countries: 148 contracting parties

Article 5 - Conservation, Exploration, Collection, Characterization, Evaluation and Documentation…
5.1 (c) Promote or support, as appropriate, farmers and local communities' efforts to manage and conserve on-farm their plant genetic resources for food and agriculture;
5.1 (d) Promote in situ conservation of wild crop relatives and wild plants for food production, including in protected areas, by supporting, inter alia, the efforts of indigenous and local communities

Article 6 – Sustainable Use of Plant Genetic Resources
6.1 Contracting Parties shall develop and maintain appropriate policy and legal measures that promote the sustainable use of plant genetic resources for food and agriculture.
6.2 a) pursuing fair agricultural policies that promote, as appropriate, the development and maintenance of diverse farming systems that enhance the sustainable use of agricultural biological diversity and other natural resources

[10] Pérez Cantero *et al.* (2020)

6.2 b) strengthening research which enhances and conserves biological diversity by maximizing intra- and inter-specific variation for the benefit of farmers, especially those who generate and use their own varieties and apply ecological principles in maintaining soil fertility and in combating diseases, weeds and pests
6.2 c) promoting, as appropriate, plant breeding efforts which, with the participation of farmers, particularly in developing countries
6.2 d) broadening the genetic base of crops and increasing the range of genetic diversity available to farmers…

Article 9 – Farmers' Rights
9.1 'enormous contribution… local and indigenous communities and farmers of all regions… have made and will continue to make for the conservation and development of plant genetic resources…'
9.2 Contracting parties 'in accordance with their needs and priorities… and subject to its national legislation', take measures to protect and promote Farmers' Rights, including protect traditional knowledge re PGRFA, benefit sharing, participate in decision making re conservation and sustainable use PGRFA.
9.3 Nothing in this Article shall be interpreted to limit any rights that farmers have to save, use, exchange and sell farm-saved seed/propagating material, subject to national law and as appropriate

Slide 11
Bavikatte and Bennett observe that into environmental lawyers 'have undertaken little or no research into the development of biocultural rights, nor have they done much even to acknowledge these rights' which has led to a situation in which no connection has been made between the rights practised by different types of communities. They suggest that this paradigm failure 'stems from the very foundations of the market economy, which views land as a universally commensurable, commodifiable and alienable resource'[11]

Defines the rights as being: 'a form of community stewardship over land and all that is associated with that land'.[12]

Slide 12 driving questions

Slide 13 references

[11] Kabir Sanjay Bavikatte & Tom Bennett, 'Community Stewardship: The Foundation of Biocultural Rights' (2015) 6 J Hum Rts & Env't 7, 8.
[12] Kabir Sanjay Bavikatte & Tom Bennett, 'Community Stewardship: The Foundation of Biocultural Rights' (2015) 6 J Hum Rts & Env't 7, 8.