THEME SECTION

Seeds—Grown, governed, and contested

Introduction

Seeds—Grown, governed, and contested, or the ontic in political anthropology

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Abstract: Seeds are simultaneously a meaningful part of the daily life of many people involved in agriculture and instruments for national and international policy making. This thematic section explores the sensorial connections between people and plants, the relationships of power that impact and frame them, and the reflections and contestations that they are a part of. In the midst of Western societies and among scientists and farmers, different ontologies and different perceptions of being and coevolving with others in the world coexist, as we will show by looking at human-seed relationships. Local and global legacies create powerful differences between seeds, while various forms of international governance simultaneously push seeds toward homogenization and agriculture toward industrialization while claiming to preserve diversity. Intellectual property rights over seeds and seed regulations have become powerful tools of multinational seed corporations for appropriating large parts of farmers' incomes and controlling the food chain, while it is the sensorial and emotional connections between humans and plants that provide the drive to resist them.

Keywords: intellectual property, governance, political ontology, seeds, the sensorial

Agricultural plants have been for thousands of years true companion species (Haraway 2003) for humans. They are natural living organisms on which humans have intervened and have thus coevolved with humans since the beginning of agriculture. They bear the traces of humans, but humans also bear the traces of their plants, not in the least because human bodies have to physically absorb plants in order to live. Their seeds have linked human labor to the living soils. Through seeds humans have estab-

lished their sensorial relationship to the soil, to the plants as they grow, to the weather. They are objects of pleasure, urge, and need. Seeds stimulated human ingenuity and care and traveled with them to the remotest corners of this planet. So close is their relationship to humans that most agricultural plants can only reproduce and compete successfully if humans help them. Plants selected to keep their seeds are at a disadvantage to their wild, easily shelling competitors. Although alive and with an agentivity of

their own, they are interfered nature that needs constant human work. They are simultaneously a meaningful part of the daily practice of many people involved in agriculture and mediators of power and control, acting as carriers of national and international food and agriculture policies and as instruments for imposing corporate control in the field of the farmer.

Using seeds as a lens, this thematic section will explore seed saving and selecting practices, global and national governance, and mobilization. Following Jan Patočka's (1998) three movements of human life (an affective movement toward the earth consisting of creating roots and engaging sensorially and emotionally with the world, an ascetic movement consisting of work and self-expansion, identified with the world of production and governance, and a reflective movement peculiar to the realization of human existence and linked to the future), we look at seeds as humans engage with them to help them grow, as they become the objects and carriers of government and technical assemblages, and as they help humans reflect about the state of the world and project themselves into the future. By exploring the concrete issue of human-seed relationships, the authors contribute to the theoretical debate about the ontological turn in social anthropology, offering an anthropology sensitive to the complexities of lived experience and life as open-ended process, an anthropology that is attentive to a historically sophisticated political ecology attuned to difference and inequality, power and control.

This thematic section looks at the relationships between seeds growing into plants and their farmers and the relationships of power and autonomy that are established through seeds over and among people. Intellectual property rights over seeds and the rules of seed registration have become the tools of multinational seed corporations for appropriating large parts of farmers' incomes and controlling the food chain. They allow them to shape the ways in which seeds can be sown, harvested, selected, replanted, and sold by producers globally. While various forms of public and private governance simultaneously push seeds toward homogeniza-

tion and agriculture toward industrialization, local legacies subsist and new practices emerge and spread, creating powerful differences between seeds and valuing and enhancing diversity. Which types of seeds are grown for food, fuel, or other purposes has to do with religious or political worldviews, with the skills of agricultural practice, and with massive financial interests. Seeds, whether transgenic, hybrid, or from traditional plant populations, become stakes for mobilization and lobbying that go beyond farmers and involve researchers, corporations, environmentalists, and consumers in varying ways.

How are seeds regulated and categorized, and how are the political, social, and economic relationships of people shaped through the types of seeds they use? We are interested in the sensorial connections between people and plants, the relationships of power that impact and frame them, and the reflections and contestations that they are a part of.

Seeds and the ontological turn in anthropology

The articles in this thematic section are part of emerging multispecies ethnographies that look at human "entanglements with other kinds of living selves" (Kohn 2007: 4). Multispecies ethnography centers on how a multitude of organisms' livelihoods shape and are shaped by political, economic, and cultural forces. As Kirksey and Helmreich pointed out, "Animals, plants, fungi, and microbes once confined in anthropological accounts to the realm of *zoe* or 'bare life'—that which is killable—have started to appear alongside humans in the realm of *bios* with legibly biographical and political lives" (2010: 545; Agamben 1998). This approach to "nonhuman" beings, influenced by Donna Haraway's concept of co-emergence of human beings living *with* other species, has led on the one hand to a new sensitivity for interspecies communication involving a multisensory approach and an anthropological interest in different kinds of touch, smell, taste, and vision involved in the

moments when species meet (Haraway 2008). Against the cognitivist and transcendental cosmology of “constructed nature”, anthropologists (Ingold 2000) proposed an ontology founded on the immediate ontic¹ “interagentive” engagement between humans and nonhumans based on their “dwelling” in the world, which also includes the researcher.

On the other hand, interspecies ethnography met with Eduardo Viveiros de Castro’s “perspectival multi-naturalism”, in which he posits that different kinds of persons, humans, and nonhumans that inhabit the same universe apprehend reality from distinct points of view (Viveiros de Castro 1998, 2012), with the effect of generating only partially overlapping ontologies. While Viveiros de Castro emphasizes the fundamental difference between the Western or “modern” ontology and the pluralities of non-Western ontologies (Viveiros de Castro 2012), we follow Tim Ingold, who rejects the fundamental division between the West and the rest and maintains that

much of the philosophical ammunition for the critique of so-called Western or modern thought comes straight out of the Western tradition itself ... , that once we get to know people well—even the inhabitants of nominally Western countries—not one of them turns out to be a full-blooded Westerner ... ; and that the Western tradition of thought, closely examined, is as various, multivocal, historically changeable and contest-riven as any other. (2000: 63)

Our analysis tries to avoid overused conceptions of farmers’ knowledge and worldviews, marked by romanticist stereotypes and essentialism. It also questions the “simplistic opposition between farmers’ knowledge and scientific knowledge that still prevails in the literature in ethnobiology and environmental anthropology” (Demeulenaere, this issue). Different ontologies and different perceptions of being and coevolving with others in the world coexist, as we will show by looking at human-seed relationships in the midst of Western societies and among sci-

entists and farmers. This does not preclude, however, that actors draw boundaries between themselves and others in contexts where the affirmation of alterity is politically productive. This happens in the peasant seed movement (Demeulenaere and Bonneuil 2011; Demeulenaere, this issue), where a common identity as peasants emerges in the struggle to build alternatives to the industrial seed system. The reverse can also be true, as the Latvian struggle to defend the right to grow Russian varieties of tomatoes shows. Latvian and Russian ethnic groups were untied in the defense of cultural memories, social ties, and political categories connected to “their” seeds, generating a “multiethnic ecosociality” (Aistara, this issue).

This multifaceted debate about the being of humans and nonhumans in the world has come to be called the “ontological turn” in social anthropology. It is linked to the insight that environmental thinking requires reflecting about “being and becoming in the world” instead of having, controlling, and possessing it. This discussion is thus important for our subject for three reasons. First, it puts into question the concept of nature present in the discourse of modernity. This discussion of a shared relational frame of interaction between humans and nonhumans decenters the Western nature/culture distinction and associated notions of universalism and relativism (Halbmayer 2012: 9). It allows us to think of seeds as something else than a genetic resource at the disposal of humans.

Second, the ontological demand of what Heidegger (1959) calls *Gelassenheit* (serenity)² and Adorno (1973) calls *Geduld* (patience) characterizes a thinking in radical opposition to the calculating relations of humans to the whole of the world and to the objects that humans attempt to violently seize in a technoscientific manner (Guzzoni 2008: 136). This way of thinking involves itself with what it has to think by letting itself be determined by it and thus dissolves the object/subject opposition. This is the approach that farmers’ movements and seed savers’ networks such as the Réseau Semences Paysannes (RSP; Demeulenaere, this issue) are taking, accepting that seeds have their own

agentivity and coevolve with humans. This coevolution can of course also lead in the direction of an increasing heteronomy (*Entfremdung*) of humans and seeds from the natural world when seeds become the carriers of intellectual property rights and systems of oppression and control (Müller, this issue).

Third, the debate poses the relation between self-determination and the ontological politics of collectives of humans that defend their own visions of the world and their right to inhabit that world in a way that disrupts the globalizing project of constructing one world that is capitalist, liberal, and secular (Escobar 2007; Blaser 2012). Saving seeds and allowing them to differentiate and evolve together with humans in their particular natural environments goes against the dominant paradigm of achieving total control over natural resources, be it through the extension of property rights or the omnipresence of regulations and standards. The farmers and activists contesting the dominant industrial food regime (Friedmann and McMichael 1989; McMichael 2013) search to achieve at the same time a direct unmediated relationship to the seeds and the plants they help grow and to the food they produce. Not all of them claim explicitly the right to their own vision of and being in the world, as the farmers involved in the RSP do (Demeulenaere, this issue), but they do claim to draw from the direct sensorial relationship to the seed and the soil, or the earth, as Patočka (1998) would have it, the energy and impulse to act and reflect on the technological constellations that are contained in the seed.

In this thematic section we are concerned with the ontological relationship, a thinking about being in the world that requires a certain *Gelassenheit*, a meditation (Heidegger 1959: 25) about the world that unfolds. Meditation about the hidden meaning, the secret (*Geheimnis*) of the technical world (ibid.: 26), however, seems insufficient considering the existential problems that this world and the humans dwelling in it are facing. What interests us are the sources of engagement with the world, the ontic relationship between seeds and humans, the direct re-

connection to reality, the sensorial perception of the nonhuman, or, as Theodor Adorno would phrase it, “the being in touch with the warmth of things” (Adorno 1978: 43; Guzzoni 2008: 135). For Adorno, this direct intimate connection and the firsthand experience not only of the warmth of things itself but of the mechanisms that destroy such warmth is indispensable for restoring to autonomy its lived ethical substance (Macdonald 2011: 680; Adorno 1973: 226–232). In other words, for humans to engage critically with the world and become able to act, abstract moral law and rational thinking is not sufficient; such engagement requires first and foremost lived contact with the world damaged by instrumental rationality and the technological apparatus.

Property and power: Appropriation and control

Through seeds, humans enter into multiple relationships with other humans, pursue objectives, calculate, plan. Seeds thus also belong to the domain of work, which is still part of the sphere of the earth (Patočka 1998) or of nature (Marx [1890] 1977: 43), but in which the instinctive, affective relationship gets suppressed and sometimes even forgotten. In the sphere of work humans reproduce themselves, together with seeds, in cooperation or in conflict with other humans. As Patočka (1998: 150) pointed out, it is in particular in the technological era that the first instinctive movement toward the earth is overpowered by instrumental rationality. Seeds as human companions are indeed also the carriers of instrumental rationality. Governments attempt to control them because “they can be seen as a biothreat, an alien invader, and carrier of disease” (Aistara, this issue). The seed system, though highly regulated in most countries, from the release of new varieties and the quality control of seeds to the legal status of organizations that implement seed control and certification and variety release procedures (FAO 2010: 129), has become in many countries a way of surrendering control over industrial

seeds to private corporations (Müller, 2010, this issue). In addition, in many countries, the informal marketing of local varieties and landraces is illegal (FAO 2010: 130).

Humans have tasted thousands of plants, selected them and carried them with them to the remotest corners of the planet, and brought others to the political centers. Political transformations reconfigure boundaries of cultural memories associated with tastes, social relations, and historical identities, as well as the shifting scientific, bureaucratic, and economic categorization of seeds and plants throughout history. “The Latvian seeds that have traveled back and forth between continents along with their keepers have served to connect and reconnect people and places throughout generations, across borders, and throughout exile from political regimes” (Aistara, this issue). Seeds are not a natural given, as Marx shows using the example of the cherry tree that is only what it has become through importation, commerce, history, and society (Marx [1890] 1977: 43). “There is no ‘natural’ cherry tree ‘prior’ to the tree’s ‘humanization’, not even ‘in the wild’, ... since the concept of the wild also refers us back to the human sphere; the tree is always already what it has become for us” (Macdonald 2011: 672).

Today, when most humans feed themselves only on a few crops, which, in addition, have an increasingly limited genetic diversity, the idea that diversity of agricultural crops can be taken for granted has come to be questioned. There is rising concern about the loss of agrological biodiversity, which may endanger the capacity of humans to feed themselves as they are confronted with climate change brought about by the explosion of human industrial activity and carbon-intensive agriculture. The use of a limited number of plant varieties selected to fit the requirements of industrial agriculture has been regulated by seed registration legislation, whose technical appearance hides tough struggles about the control over the plants farmers are allowed to grow and thus the food humans are made to eat (Müller, this issue).

The seeds selected for industrial agriculture have been bred from a single plant specimen

that has been multiplied millions of times, carrying almost identical genetic information. They respond well to and actually require synthetic fertilizers and pesticides and fungicides to develop “their full potential”, to use the industry jargon. Hybrids have been developed that don’t breed true (that don’t have homogeneous phenotypes) when they are reseeded, thus obliging the farmer to buy seeds every year. Plant breeding has used irradiation and chemicals to accelerate mutations and, more recently, has introduced selection by molecular markers and the insertion of genes obtained from other plant and animal species.

These plant technologies are linked to claims of intellectual property for the companies that employ the breeders who developed the varieties, or that hold patents over biotechnology processes and products. They thus go together with the appropriation of the seeds on which humans intervened. The instrumental rationality contained in the imposition of intellectual property rights over seeds (Müller 2006a, 2006b, 2008) establishes fields of ownership that crosscut and contradict property rights over land and labor. If we use Michel Foucault’s (2004) definition of a relationship of power as an action on the action of others, we can say that through their intellectual property rights the firm owning the patent over a gene in the seeds has become able to act on the actions of the farmers via the seeds it sells to them. It determines what they harvest, how they sell it, whether they reseed their harvest, how they keep their books. As Karl Marx noted, “property signifies a relation of the working subject ... to the conditions of his production,” (1964: 95) and it is necessarily a political relation (Macfarlane 1998: 113). By attributing to the patent holder intellectual property rights over all the plants emerging from seeds carrying the proprietary gene no matter where they grow, the legislators extended the intellectual property right to take precedence over the right of property to the land and to the labor of the farmer. Intellectual property over seeds thus transforms and weakens freehold property upon whose foundation the liberal conception of a just soci-

ety was based (Locke 1690: sec. 27). The farmers who reseed their crops become potential infringers, as laws against counterfeiting are currently extended to include the criminalization of seed saving.³ The legal provisions equaling reseeding with counterfeiting are not only toughening on the national level, but also come to bear on international lawmaking through the intellectual property clauses of international trade and investment treaties⁴ negotiated behind closed doors, which have legal precedence over national law in case of a trade challenge.

Industrial seeds thus carry an instrumental rationality and control into the fields of farmers. To enforce a monopoly over a living, self-reproducing organism, however, is truly complex, and the biotechnology companies selling the seeds have pushed for numerous legislative changes that would allow them to use genetic testing to identify each seed delivered at the elevator or crushing plant, determine the holder of the intellectual property right over each grain shipped, collect royalties, and impose penalties on farmers whose grain shipments contain patented varieties that they have not previously declared (Müller, this issue). Traceability, which had become a master term after the food scandals of the 1990s, has thus surreptitiously changed its meaning to signify principally tracing intellectual property rights attached to the seeds cascading from the fields of the farmer to the vaults of large ocean liners. A telling example is the lawsuit that Monsanto filed just a few years ago against Argentina for exporting infringing soy, which prevented the ships full of soybeans from unloading in European ports.

One of the tools for imposing and making possible such traceability is the variety registration system, a seemingly technical institution with a highly political charge. In Canada, the seed variety registration system was transformed in such a way that it reduced agronomic and environmental quality standards for seeds and simultaneously insured that each seed became traceable to the owner of the intellectual property right attached to it. As these seemingly technical changes were going to reduce the control of farmers over their means of production and thus

undermine their autonomy, the government sought to present the project as consensual. It organized lengthy stakeholder consultations that neutralized contentions about standards and controls through micro-mechanisms that disempowered those farmers who defended their right to save seeds (Müller, this issue).

In Latvia, sale of seeds of varieties not registered in the European Union's Common Catalogue was made illegal, thus depriving the Latvian gardeners of their preferred tomato varieties, sparking protests that came to be called "the tomato rebellion." Aistara (this issue) identifies the EU Common Catalogue of Varieties of Vegetable Species as "a tool of empire" that can be compared to previous taxonomic and classificatory projects of empires. Empires "invite analysis as spaces in which power is exercised through complex, often subterranean means" (Jasanoff 2006: 274). They rewrite history and reorder nature through the creation of "herbariums, collections, gardens" (Foucault 1994: 131), "stripping plants of both their ecological and social connections" in a process of bringing order to chaos (Aistara this issue). Because seeds embody powerful memories of sensual recall from different places, times, and tastes," it is more convenient for any empire to eliminate them and replace them with new ones that symbolize the current regime (Aistara, this issue).

Seeds not only become what they are in multifarious networks of natural, cultural, and political agencies, but their emergence and co-evolution with humans is ruptured through the deregistration, persecution, confiscation, and destruction of proprietary seeds. In order to act on these mechanisms of appropriation and destruction it is thus not only necessary to engage with seeds in a "warm" relation of intimacy and love, but also—following Adorno—to acquire firsthand experience of the mechanisms that destroy such warmth and a proximity to and intimate knowledge of the matter at hand (Macdonald 2011: 680). Real autonomy is dependent upon a process whereby consciousness experiences contradiction not as something meaningless, but rather as the negative force that propels it to determine, that is, think through and diag-

nose, contradictions in order to overcome them or “negate” them (Adorno 1973: 17).

Alternatives, interstices, and struggles

Multispecies ethnographers have used the term “contact zones” to designate the spaces where encounters between humans and other species take place, where firsthand experiences are made, mutual ecologies are generated, and, possibly, niches in the system are coproduced (Kirksey and Helmreich 2010: 546). These contact zones are not necessarily harmonious spaces of unconstrained communication and mutual understanding, but “social spaces where disparate cultures meet, clash, and grapple with each other, often in highly asymmetrical relations of domination and subordination” (Pratt 1992: 4; Aistara, this issue). When species meet, what is at stake is essentially their being and becoming in the world together: “becoming is always becoming *with—in* a contact zone where the outcome, where who is in the world, is at stake” (Haraway 2008: 244). These contact zones may become interstices in the system that may widen and ultimately break it open, or they can be spaces of disempowerment and estrangement. In this thematic issue we focus on the contact zones where the practical engagement with seeds encounters bureaucratic procedures, regulations, and technological configurations. We look at both, the encounters of seed savers and their plants “with strong personalities” and the spaces of public consultations on seeds, whether they are alienating or constructive. What we are interested in is the reflexive engagement of collectives of seed savers with bureaucratic rationality, which is born out of their intimate relationship to, their creative becoming with, their seeds—or one could say we look at Patočka’s “third movement” of reflexivity, contestation, and struggle.

Following tomatoes with complex histories and trajectories caught between the breakdown of the Soviet Empire and the accession of Latvia to the European Union, Guntra A. Aistara studies the contact between

Latvian State Plant Protection Agency officials declaring that certain tomato varieties ‘have never actually existed’ and patrolling border infringements to protect the European common market; Latvian elderly gardeners defending Soviet tomatoes as a national project; public breeders taking their breeding activities underground; and farmers continuing to sell contraband throughout.

In her article, she analyzes the mobilization of gardeners opposed to the extension of European Union seed legislation to Latvia that made growing Russian tomato varieties illegal. Overcoming ethnic and political divisions, they defend the cultural and historical memories of the Latvian and Russian communities incorporated in the tomato seeds, from episodes of banishment to Siberia to childhood tastes and fond reminiscences.

Taking the Canadian seed system as an example, Birgit Müller asks how seeds and their farmers emerge and get lost in the contemporary seed system of a major agricultural nation, through which mechanisms, and with which outcomes. As she follows industrial seed varieties from the fields of Canadian farmers to research laboratories and government agencies, she examines how the public consultations about improving the Canadian variety registration system lost their gloss of technicality and neutrality and became a show of force about the redistribution of wealth and power between seed corporations and farmers. She shows how the overpowering instrumental rationality hidden behind a participatory consultation process effectively disempowered seed savers and separated farmers from their seeds.

Elise Demeulenare studies how a new alliance between scientists and social movements defending a protected seed commons formed around ancient varieties and landraces that display specific and diverse agronomic characteristics, which contrast with the relative uniformity and predictability of modern varieties. The seed varieties exchanged in the Réseau Semences Paysannes are not freely commercialized, but

remain, on the contrary, embedded in a series of sticky transactions that keep the imprint of their circulation in the network. She observes how seeds and varieties in circulation tightened the network by inscribing it into a seamless fabric, intimately woven with the stories of people and plants and the creative frictions that emerged when scientists and farmers entered into a community of practice. The common practice produced a new narrative about seeds and humans that led to a radical critique of the hegemony of modernity and its specific and reductive definition of what the world is.

Birgit Müller (PhD, Cambridge), senior researcher at the LAIOS/CNRS in Paris, has worked extensively on social movements and societies in rapid transformation: women riots in colonial Nigeria, alternative movements in West Germany, Nicaragua during and after the Sandinista period, and postsocialist transformations in East Germany, the Czech Republic, and Russia. Among her books are *Toward an Alternative Culture of Work: Political Idealism and Economic Practices in West Berlin Collective Enterprises* (Westview Press, 1991) and *Disenchantment with Market Economics: East Germans and Western Capitalism* (Berghahn Books, 2007). She is currently undertaking a multisited research project entitled “Food, Property and Power: Agricultural Technologies as Global Policies and Local Practices,” with fieldwork in the Food and Agricultural Organization (FAO) and among agricultural producers in Saskatchewan, Canada, and Carazo, Nicaragua. She is the coordinator of the EASA Network on the Anthropology of International Governance. Email: bmuller@msh-paris.fr

Notes

1. “Ontic” refers to a pre-categorical and pre-objectual connection to reality.
2. *Gelassenheit* in Heidegger’s sense is often translated as “releasement,” which obscures more than it elucidates the meaning of the term, which in German is not a neologism.
3. For the legal developments in France consult <http://www.semonslabiodiversite.com/?p=2801> (accessed 21 December 2013).
4. Such as CETA, the Comprehensive Economic and Trade Agreement between Europe and Korea (ratified), Europe and Canada (about to be signed), Europe and the United States, Europe and India (under negotiation), and Europe and China (negotiations are starting).

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