

those most vulnerable among us.

Lastly, check out Dr. Harfeld's review of Paul Thompson's (2015) *From Field to Fork – Food Ethics for Everyone*.

May their essays inspire us to eat well, mindful of our humanity.

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Paper



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Aboriginal food security in the Arctic – a Utopia or a matter of attitude?

Food security is significantly affected by industrial pollution and climate change. These transformations are particularly apparent in the Arctic's eight countries. In northern Canada, for example, melting perma-frost causes drainage of lakes and marshy areas of importance for food supply. In northern Sweden and Finland, the fish stock exceeds European maximum limits for dioxin and PCB to a large extent.

Despite this, no international monitoring of food security yet exists in the Arctic. The international food and agricultural organization, FAO's, food security monitoring program only covers high latitudes to a limited extent (Nilsson et al. 2015).

There may be many reasons for this, e.g. a lack of acute starvation and malnutrition in the Arctic combined with an extremely low population density from a global perspective. Further, as previously shown, many indicators suitable for low latitudes are not suitable for high latitudes (Nilsson et al. 2013). A third explanation for the difficulties in applying common food security indicators on the Arctic is the strong preference for traditional foods recognized among many indigenous groups (Canadian Academies 2014), which contribute to 10% of the Arctic population.

Thus, in the discussion on food security in the Arctic, food sovereignty is increasingly emphasized. While food security typically focuses on food access, availability and safety independent of distribution pathways, food sovereignty relates to the sustainability of the food supply on a local or regional level. In many cases, the vision of aboriginal food security equals the vision of a situation of unchanged access to subsistence species from time to time. Unfortunately, this is a very unlikely scenario in the Arctic.

It has been forecasted that 100 years from now the Taiga tree belt will have reached the Arctic coast, which no longer will be coated with ice. Thus, even if the cultural need of a practise of harvesting native plant and animal wild-life species is the same, an adaption to existing opportunities is vital.

Today, food dishes based on wild-caught fish and reindeer meat are of great importance for the food culture of the Sami people in the Barent's region (that is northernmost Scandinavia and the Kola peninsula of Russia). Sea mammals are important in Inuit food

culture as well as in the food culture of many indigenous groups of the Russian Arctic.

From a global perspective, high meat consumption will not be sustainable and from an Arctic perspective the unlimited extension of the old hunter and gatherer culture is not realistic. However, even if subsistence species may shift, there are elements of traditional food security strategies which may persist independently of industrial pollution and climate change. And we better start to discuss these aboriginal strategies soon, before it is too late!

Three main principles worth highlighting are the principles of 'collaborating, challenging and sharing'. These main principles of the old hunter and gatherer culture may be applied to any activities to promote future food sovereignty, that is the right of people to "define their own policies and strategies for sustainable production, distribution and consumption of food that guarantee the right to food for the entire population" (WFFS 2001).

The largest threat to a fruitful discussion on the essence of aboriginal food security is the attitude of unchangeability as a virtue among indigenous people. In my opinion this is a colonial perceived virtue, which does not really exist. Indigenous peoples have been resilient all this while because of their capacity for adaptation.

Our forefathers and mega-great grandmothers were never unchangeable. When meat was available they ate meat. When fish was available they ate fish. When wild plants were available, they ate wild plants. Some wild plants, for example Angelica (In Latin, *Angelica archangelica*), our grandmothers harvested in a careful way to promote a sustainable access and use. The essence of this traditional knowledge is knowledge about how to adapt as a part of resilience.

Applying this attitude into the discussion on future strategies for aboriginal food security in the Arctic may lead to locally accepted food transitions for a sustainable future, e.g. the greenhouse project in Nunavik, Quebec, Canada. Vegetables grown in these greenhouses are locally accepted because of the local community's involvement in the project.

But collaborating, challenging and sharing should not be seen as isolated on a local level. In the long run, food security on the local level will always be dependent on food security on a global level. Decreased meat consumption and a redistribution of the earth's resources, necessary for food security on a global level, will inevitably affect food security all over the world, including aboriginal food security in the Arctic.

Thus, we must be prepared for change, and some of us already have been. A Sami friend of mine recently visited an old reindeer herding uncle of his. To everyone's great surprise this old uncle declared that he had become a vegetarian. But his wife corrected him: What you really want to say is that you have begun to eat vegetables!

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Paper



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How to feed and not to eat our world

**This entry is part of Dr. Boonen's dissertation research, which will be published later in 2015.*

Within the finite boundaries of planet Earth, agriculture plays an essential role in the production of renewable resources for the desires and needs of the growing human population. Since production means like soil, water and nutrients, are limited, choices have to be made, leading to moral discussions. To analyse the ethical debate, Aerts et al. (2009) developed the 6F-framework, assigning six different functions to agriculture: Food, Feed, Fuel, Fibre, Flower and Fun. In the framework of Aerts et al., Flower comprises both ornamental plant production and nature. Because ornamental plant production is also Fun and since humanity not only expects agriculture to take care of nature as such, but also to maintain other ecosystem services and keep agricultural land in good condition for future generations, this thesis suggests that it seems more adequate to adapt the framework by replacing Flower by Foster, stressing the caring role of agriculture for its environment and for the present and future generations.

During the last decades, agricultural production strongly increased. Nevertheless, more than 800 million people still suffer from hunger. With a global population that will increase up to 9 billion people by 2050, focussing on increasing food production alone will not solve the hunger problem. As discussed in Boonen et al. (2012a), animal production can play an essential role in producing food on 'useless' land or by converting 'useless' energy or proteins. Nevertheless, the role of nowadays' animal production can change, with, for example, an increasing interest in aquaculture production. Some new ethical discussions will probably occur during the next decades, e.g. the globally increasing population of carnivorous pets that demands for larger numbers of animals that are raised and killed to feed them. When rethinking the role of animal production within sustainable agricultural production, several traditional parameters are likely to change: the used species (e.g. replacement of mammals by insects), the use of new by-products (e.g. from algae production) and animal welfare norms.

Sustainable agriculture has been touted as an important ingredient in ensuring global good security. Several definitions are used and depending on one's worldview, priorities will alter between people, planet and profit (Boonen et al., 2012b). Furthermore, one has to question if the fulfilment of the desires of a rather small group justifies that the needs of many are compromised. In the consumer society, overconsumption and waste are ways that highlight the existential condition of the day (Baudrillard, 1998). Since consumption qua consumption focuses narrowly on 'having' within the framework of human needs (Max-Neef, 1992), it cannot lead to true happiness (human flourishing). Therefore, agricultural production should focus on needs in the first place, before fulfilling desires. Searching for these needs, one has to be aware of a possible inversion of goals and means. The production of a certain crop or animal product as such is not the goal, but only a means. If other means are more sustainable to reach the goal, a rethinking of the agricultural production system can