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Education as a response to sustainability issues

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Abstract

In the field of environmental education and education for sustainable development, there is a lively discussion about the paradox between acknowledging pluralism and taking into account urgent sustainability concerns. With this article, we aim at nurturing this debate theoretically and empirically. We draw on concepts of Latour and Marres that allow an analysis of educational practices that strive to take into account a multiplicity of views, values, interests and knowledge claims without resorting to an 'anything goes' relativism vis-à-vis the far-reaching implications of sustainability issues. We present an analysis of a guided tour of a CSA farm (Community Supported Agriculture) and articulate how the care for a sustainability issue can incite an interesting educational dynamic (understood as 'education as a respons'e) that emerges as a derivative of 'mastery'.

Keywords: environmental education; sustainability; pluralism; community supported agriculture

Introduction

Issues of sustainability are complex, uncertain, and contested as they are interwoven with diverging and often irreconcilable values, interests and knowledge claims (Marres, 2005; Dijstelbloem 2007). It is often unclear who (or which groups) will suffer from the mainly far-reaching consequences. In a world of risk and uncertainty, Ashley (2005, p. 195) argues, 'right answers' might turn out to be 'horrendously wrong'. In such a context 'there is no longer something to be taught that is universally agreed upon or that can be universally applied' (Wals, 2010, p. 144). Many authors argue therefore for a *pluralistic* (some label it *democratic*) approach to environmental education (EE) and education for sustainable development (ESD), one that acknowledges, stimulates, and engages a variety of values, interests, and knowledge claims (e.g. Jickling, 1994; Jensen & Schnack, 1997; Lijmbach, Margadant-van Arcken, van Koppen & Wals, 2002; Öhman, 2006; Jickling & Wals, 2007; Breiting, 2009; Rudsberg & Öhman, 2010; Wals,

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2010; Læssøe & Öhman, 2010; Jóhannesson, Norðdahl, Óskarsdóttir, Pálsdóttir, & Pétursdóttir, 2011; Lundegård & Wickman, 2012). Their plea can be regarded a critique against approaches to EE and ESD that aim to serve a particular end, i.e. behavioural modification in the pursuit of sustainability. Repeatedly, researchers point at the risk of EE and ESD becoming an instrument for manipulation and indoctrination (Jickling & Spork, 1998; Bonnett, 1999, 2000; Wals & Jickling, 2000; Jickling, 2001, 2003; Ashley, 2005; Jickling & Wals, 2007) which positions 'learners as marionettes for the good intentions of environmentalists or environmental educators' (Breiting, 2009, p. 200). Pluralistic EE and ESD, by contrast, is characterised by indeterminism, open-endedness, free opinion-making, critical thought/dialogue, and enhancing students' competence to act (Gough & Scott, 2007; Wals, 2007; Rudsberg & Öhman, 2010). The idea is that EE and ESD should foster independent and critical thinking, stimulating learners to become active citizens (Jensen & Schnack, 1997; Breiting, 2009; Jóhannesson et al., 2011) who are able 'to debate, evaluate, and judge for themselves the relative merits of contesting positions' (Jickling, 1994, p. 8). Pluralistic EE and ESD, Rudsberg and Öhman (2010) argue, strive to acknowledge and engage different perspectives, views and values when dealing with sustainability issues. Students are made aware of the fact that there is more than one possibility, and encouraged to examine and evaluate different alternatives and to be critical of their own statements. Deliberative, open-ended conversations whereby 'different arguments are encouraged and considered and no particular standpoint is privileged' (Rudsberg & Öhman, 2010, p. 106) are seen as a key aspect of education.

This open-endedness in EE and ESD, however, is the target of criticism too. While "indoctrination" toward predetermined goals has been rejected on the basis of pluralistic/democratic concerns, indeterminism is challenged on the basis of sustainability concerns. Are all outcomes of an educational process equally desirable, Wals (2010) wonders, on condition that they emerged from carefully considering different points of view and engaging in (joint) meaning making? He draws attention to the risk of falling into "anything goes relativism":

> The plea for pluralism might lead to this kind of relativism when in the end it is accepted that any perspective or position on sustainability or sustainable development is as good as any other one, that your view on sustainability is as true as mine and that I would be wrong to critique yours, and while it might be wrong from my perspective, it might be right from yours. (Wals, 2010, p. 145)

Dobson (2003, p. 26), too, emphasises that 'if harm is being done, then more justice rather than more talking is the first requirement'. Justice, for him, is about an equal distribution of 'ecological footprints', that is, of environmental harms and benefits. Kopnina (2012, p. 710) addresses the danger of 'lapsing into indecisive relativism' with a plea for an ecocentric perspective in EE and ESD. These authors put forward normative criteria based on sustainability concerns since, as Kopnina (2012) emphasises, there is no guarantee that a pluralistic approach to education will address ecocentric perspectives while the dominant anthropocentric corporatist perspectives are counter-productive to the effort of preventing urgent environmental problems.

In analysing this debate, what comes to the fore is a search for a 'delicate balance' between sustainability concerns and the acknowledgement of a variety of commitments and values (Östman, 2010, p. 75). But, as some authors argue (Östman, 2010; Rudsberg & Öhman, 2010; Lundegård & Wickman, 2012), it is still far from clear what pluralistic (or democratic) EE and ESD actually mean. Furthermore, empirical research (e.g. as to whether and how it appears in educational practices) remains rare. With this article, we aim at nurturing this debate theoretically as well as empirically by examining how the

abovementioned delicate balance is handled within an educational practice. In doing so, we want to articulate an understanding of EE and ESD that moves beyond the dichotomised distinction between indoctrination versus anything-goes-relativism. Theoretically, we draw on the insights of Bruno Latour and Noortje Marres about the entanglement of human and non-human actors in *matters of concern* so as to put the tension between acknowledging pluralism and taking into account sustainability concerns in another light. Simons and Masschelein's (2011) notion of *mastery*, then, allows us to articulate how the care for a sustainability issue (as a matter of concern) can incite an educational dynamic that neither resorts to indoctrination nor to undue relativism. The master, they argue, perceives the world, or an issue, as demanding care. Hence, there is always something at stake. As we will show, it is this concern for the world that is central in this educational dynamic.

Matters of concern

We opened this article with elaborating on the complexity, uncertainty, and contestation that characterise sustainability issues. In the context of these issues transparent and uncontested facts are rare while the consequences are far-reaching and cause social controversies. Such issues, Latour (2004, 2005, 2010) argues, should therefore be approached as *matters of concern* instead of *matters of fact*. He uses the term matters of fact referring to approaches to reality in terms of facts that are assumed to *speak by themselves* and are, thus, beyond dispute. Such facts serve as a standard then to distinguish between some enlightened people who have unmediated access to the truth, captured in undisputable facts, and the others who articulate disputable assertions, opinions and values. Yet, he argues, an increase in scientific controversies challenges the logic of transparent, unmediated, undisputable facts. Moreover, we face a proliferation of states of affairs that neither fit in the list of "mere" values, opinions, preferences, etc. nor in the list of undisputable facts. Latour introduces the concept of matters of concern as an attempt to overcome the dichotomous thinking between on the one hand unmediated and undisputable *facts*, *the truth*, *nature* (commonly referred to as *objective*) and on the other hand disputable *values*, *opinions*, *preferences*, *interpretations*, *choices*, *struggles* (what we commonly label *social* and *subjective*) (see also Decuypere, Simons & Masschelein, 2011; Goeminne & François, 2010). What 'highly complex, historically situated, richly diverse matters of concern' (Latour, 2004, p. 237) show, he argues, is that both facts and values are only very partial renderings of the issue at stake. Neither facts nor values can exist by themselves. In the same way as facts can only exist by the values and concerns that sustain them, values are completely powerless when their factual underpinnings are removed from view, turning them in mere opinions.

Latour (2005) and Marres (2005) argue that such matters of concern are characterised by an intimate entanglement of a variety of human and non-human actors that are *caught up* in the affair. Marres (2010) emphasises that actors are not only affected by these issues in factual terms. This *state of affectedness* also refers to being touched, implicated, and being moved in the sense of being mobilised by the necessity to have these issues systematically cared for (Marres, 2010). In line with this Latour argues that actors' relation to matters of concern – whether it takes the form of attention, interest, or involvement – should be understood then in terms of *attachment*. Attachment, in this account, is a mode of *being affected by* whereby actors are both actively *committed* to an object of passion and *dependent* on it (Marres, 2005). The

object binds them in the sense that their pleasure, fate, way of life and perhaps even the meaningfulness of their world is conditioned by it and they must do a lot of work so as to sustain this object of passion. Drawing on this notion of attachments Marres argues that actors are not only jointly but also *antagonistically* implicated in matters of concern. They have divergent attachments and the sustainability of these attachments is threatened by the attachments that exclude them. Being jointly and antagonistically implicated in an issue, then, means being bound together by mutual exclusivities between various attachments.

Precisely these joint and antagonistic attachments through which a variety of actors is caught up in a matter of concern are at the basis of the delicate balance between sustainability concerns and the acknowledgement of a variety of commitments and values. The concept of mutually exclusive attachments enables moving beyond the contradistinction between pluralism (and the allied risk of undue relativism and ignoring facts concerning far-reaching consequences of sustainability issues) and indoctrination (and the associated threat to democratic values) but instead takes a position *within* this tension without the ambition to "solve" it. The divergence of attachments is acknowledged and, since it cannot be assumed that these can co-exist peacefully, stands in the way of an anything goes relativism. Marres (2005) further elaborates this idea of the irreconcilability of attachments by referring to Annemarie Mol's notion of *multiplicity*. Both the terms *plurality* and *multiplicity* refer to some kind of variety. Yet, whereas plurality in Mol's account implies different entities that exist side by side, in parallel, multiplicity refers to varying entities that are enmeshed in one another, but at the same time, cannot be reconciled. It implies both mutual entanglement and difference. Matters of concern thus entail a multiplicity rather than a plurality of attachments. Taking these mutually exclusive attachments seriously – that is, enacting their irreconcilability, making manifest the point at which attachments prove mutually exclusive – is in this sense very different from taking into account a plurality of views, opinions, values and knowledge claims.

At the beginning of this article we outlined the debate about pluralistic versus normative approaches to EE and ESD. This reflects a search within educational theory to move beyond the dichotomy between, on the one hand, teaching the "factual truth" about the "nature" of sustainability issues and, on the other, an open-ended exploration and deliberation about a variety of values, opinions, and preferences of equal value. Above, we argued how Marres' and Latour's ideas about joint and antagonistic attachments to matters of concern allowed us to put the tension between acknowledging pluralism and taking into account sustainability concerns in another light. In the remainder of this article we draw on these insights in search of an understanding of education beyond the paradox of indoctrination versus anything-goes-relativism. First, we present an empirical analysis of an educational practice[1]: a guided tour of a CSA farm (Community Supported Agriculture[2]). The question that guides our analysis is how a matter of concern, i.e. the issue of sustainable agriculture, is dealt with in this particular educational setting. Marres' and Latour's characterisation of matters of concern in terms of entanglement stimulates us to focus on the *assemblages* that emerge during the guided tour. How does a particular assemblage around the issue of sustainable agriculture arise during the activity? Which actors (human as well as non-human) are drawn into it and which are excluded? How does this affect the space for the enactment of joint and antagonistic attachments? And how to understand the interaction between the farmer, the students, and the issue at stake as an *educational* act? Drawing on Simons and Masschelein's (2011) notion of mastery, we will argue that it is precisely the farmer's concern for an issue that incites an interesting educational dynamic.

So as to analyse these questions, we conducted an in-depth analysis of the guided tour. The activity took 1 hour and 40 minutes and has been observed and video-recorded. Verbatim transcripts of the Dutch-spoken conversation were complemented with descriptions of the observed non-verbal aspects of the setting (gestures, movements, material context, etc.). The excerpts used below have been translated to English by a professional translator who tried to reflect the original wording. We analysed these data using the qualitative analysis software QSR NVivo. In line with Latour's and Marres' claim that a matter of concern brings about an assemblage of both human and non-human actors, we scrutinised the conversation (spoken text and non-verbal communication) as well as the materiality of the setting in which the guided tour took place. The analytical work started with repeatedly examining the recordings and transcripts so as to search for sequences where actors were drawn into the assemblage or blocked out of it or where the participants voiced a concern that could be understood as what Marres conceptualised as an attachment. We then analysed how the new actors were handled during the guided tour (e.g. were they welcomed or challenged as being a legitimate part of the assemblage around the issue of sustainable agriculture?) and how the diverse attachments were addressed (e.g. whether or not the points at which they might be mutually exclusive were enacted). Finally, the analysis made by one of the researchers was validated by the other through critical examination of the findings in relation to the empirical material.

Assembling the issue of sustainable agriculture

The activity we analyse here is a guided tour of a CSA farm for a group of undergraduate students in bioscience engineering. The students arrived at the farm by car accompanied by their professor who told us that they visit this farm besides others in the context of the course *Sustainable agricultural techniques*. She already visited the farm the year before, with other students, and decided to do it again as it 'deviates so strongly from common farms'. While we were waiting for the farmer to guide the tour, the students looked around in the old hangar stuffed with an outmoded tractor, spades, plastic boxes, rakes, pots of different sizes, tables, chairs, an old blackboard, toys, boots, pots with plants, garments, etc. The hangar gives on to a small piece of land with little or no crops ripe for harvesting and a lot of weeds. Indeed, this differs strongly from the common image of large-scale and high-technological farms that are mainstream in Flemish agriculture. The farmer arrived and welcomed the students. The tour started in the hangar where the students, the professor and the farmer stood in a circle. The students made notes. The farmer started his talk, in line with the course's focus on sustainable agriculture, with referring to a concept that is widely used in sustainability discourse: the *Triple P* (People – Planet – Profit). This concept is often highlighted as indispensable content within ESD curriculum and thereby mainly understood as a balance between social, ecological and economic concerns (Van Poeck et al., 2013). Yet, the farmer did not grant equal value to People, Planet, and Profit:

> And I don't know if anyone here knows what the three Ps are? ... Never heard of them? […] - OK, the first P, for us, is 'planet'. This means that we generally assume that without nature and without the planet and without the, how everything works in nature, that we wouldn't have any farms in fact. So I think it's essential in all the decisions we make, that we propose that you first have nature and that you need to examine how it all fits together. So perhaps there is already a major difference with how you view nature...because most

> people start with the second P, that stands for people, um, indeed that's also important for us that's also why we do it or why we are involved in nature.

In doing so, he expressed and elaborated his own commitment to 'the planet'. All the choices he makes, he argued, are affected by his concern for this planet. The language he used did not present this account of sustainable agriculture as a matter of fact (e.g. 'I think', 'our choices', 'for us') but brought to the fore what Marres (2005) has called an attachment, that is, how he as a farmer was both actively *committed* to the planet and felt *dependent* on it. Immediately he also pointed out the possibility that the students might have other attachments – *people*, for instance –, yet, without leaving room for them to respond as he promptly continued his talk about how he understood the people and profit dimension of the Triple P. After his explanation, he did ask for a response: 'Now I don't know if this ties in somehow with your vision of agriculture?' One of the students expressed how he saw it, which obviously deviated from the farmer's point of view:

> Student 1: Agriculture must be productive. As much... not as much as possible, it's still the intention, yes to produce food and to make sure there's enough.
>
> Farmer: Yes, so for you the P for profit takes precedence?
>
> Student 1: Yes [nodding]

These interactions revealed how actors can be implicated in the issue of sustainable agriculture by different attachments: the planet or profit. Although the student's concern for sufficient food production could also be understood as an attachment to people, he firmly endorsed the farmer's assumption that he puts profit first. The farmer continued the discussion by challenging the student's attachment to profit. Doing so, he highlighted the controversy implied in the divergent views and challenged a conception of sustainability as a balance between People, Planet, and Profit by encouraging the students – in a rather provocative way – to make explicit how they interpret the abstract and vague Triple P concept:

> Farmer: Therefore producing food, or allowing people to invest money in banks or trade it on the stock markets, that's the same, that's profit.
>
> Student 1: There's a difference, but…
>
> Farmer: What's the difference?
>
> Student 1: The difference… yeah, to consider it a job, farming… If you compare it to banking, it should also… The profit seeking, it is different, isn't it?
>
> Farmer: [...] If you look at the bottom-line of agriculture, it's about profit, and I say it's wrong. Start with speculating on the stock markets. It will yield much more than agriculture [...] I just want to ask you the question to be somewhat confrontational. Because it is not straightforward in this society, farming... But tell me if I am being too confrontational or if I also say something that doesn't make sense OK? Because it, this is just my subjective story.

Here, too, he specified his attachment as a personal point of view and he invited the students to contest it. They did not, and he continued his talk with an extensive elaboration on how the historical development of European agriculture after the Second World War, incited by a concern for abandoning hunger, was characterised by a

tendency towards more technological interventions, increase in scale, and a growing dependence on subsidies. Again, he encouraged the students to bring in their own point of view:

> Farmer: So it's the third P that now has the upper hand in agriculture. All the farmers are tearing their hair out and actually their closest relationship is with their bank manager. Well, you can say if it's true or not OK?
>
> Student 2: No, it's true, but as a farmer it's your choice whether to start a business or not isn't it?
>
> Farmer: Yes, that's true.
>
> Student 2: So yes, you choose whether you want to get involved with the banks.

As a response, one of the students thus drew a new (non-human) actor into the emerging assemblage around the issue at stake, that is, the consideration that it is the farmers' own choice whether or not to go along with this tendency. The farmer agreed with this argument, yet, subsequently he highlighted that such a choice is not merely a matter of non-committal opinions or preferences. He told about one of the consequences of the choice he actually made, that is, the fact that his small-scaled farm cannot benefit from subsidies and emphasised that his attachment to the planet implied hard work and financial difficulties:

> If you choose, very consciously, for the P, that we are going to start with nature, and we start as a farmer but we are not going to get involved in the business of building a new hangar or buying new tractors and starting a completely new business, then you get left by the wayside. So we are the turnaround in fact, we are causing the changeover with our business. I am not the only one in Europe, and certainly not in Flanders, that views agriculture like that. Now, it is hard work. [...] That means that we are really managing our crops, land and nature and people in a different way. And the last P, profit, this will indeed be a difficult issue for us. That's why we need to work hard and get started.

In doing so, he repeated his attachment to the planet and further elaborated it by focussing on its implications. As such, he moved the discussion beyond the mere expression of opinions by relating the student's opinion to his own, profound experience. The way in which the farmer talked about this experience seemed to have caught the students' attention and interest. Student 1 asked: 'Who are you actually? Or, yeah, how did you end up in this business?' His question revealed that he experienced what the farmer was talking about as somewhat odd or, at least, unfamiliar. The second student was curious to know his opinion about conventional agriculture: 'But, what is your opinion then, of conventional agriculture?' She told that her parents ran a pig farm using conventional techniques and, thus, her family's livelihood depended on it. The farmer argued why he thinks that conventional agriculture will come to a dead end and pointed out the policy on agricultural subsidies as a major obstacle for sustainable agriculture. As such, he enacted the irreconcilability of an attachment to the planet versus an attachment to conventional agriculture which he characterised as profit-oriented. The discussion expanded as more students now got involved in the conversation. Some students contradicted the farmer's arguments and the antagonism between different attachments was further emphasised.

> Farmer: I don't receive any subsidies. And I also think that it would be very good to say that we are putting an end to them.

Student 2: But you also don't live from it.

Farmer: I do live from it.

Student 2: Oh, you said yourself that you don't pay yourself a wage.

Farmer: Yes but that's different. You don't need a wage to be able to live from it. I eat from it. That's a big difference. If you think I've got EUR 2,000 on my account at the end of the month. I think I've got EUR 900 or something like that on my account.

Student 2: Yes but food alone doesn't get you far.

Farmer: No, but yes, that's what we have to do. That's the transition we have to make. That's the change we have to bring about. I think some major steps are going to be necessary to consciously address or handle it.

Student 1: Not everyone can do it though. It is nevertheless...

Farmer: Why not?

Student 1: What would we eat? If everyone... There's more, I mean yes...

As the discussion continued, new concerns were brought into it. Famine, for instance:

Farmer: Then I'd say yes, ninety percent of farming throughout the world is managed like this.

Student 2: Yes, there are also I don't know how many going hungry.

Farmer: Yes, of course but that's because our onions and the chickens that are subsidised are exported to Benin, and to Toga and to the Gambia and wherever it is. They are put on the market at dumping prices and the people there can't sell their own produce because it is more expensive. So an African produced chicken or cow, or milk, or egg or onion is more expensive than those produced in Europe with subsidies for the farmer and the producer and the distributor here, which is sold there and transported - large footprints and so on - so they don't produce onions there any more for the moment

Or agricultural policy in Africa:

Student 4: But isn't that the fault of Africa's agricultural policy, that they have taken the wrong approach?

Farmer: The African countries (...) are lobbying intensely because Europe and the United States should stop subsidising their agriculture to such an extent. And as long as that doesn't happen, well, that's why I think that it must happen urgently, right? Then you still have a world in disarray.

In both cases the farmer related the student's concern, again, to the issue of subsidies. Next, he for his part brought the issue of speculation into the discussion. Both topics enabled him to highlight, once more, the mutually exclusive attachments to planet or profit.

Because our sector is one that people speculate on, right. Banks speculate on the price of sugar or flour, and it's not even about the speculation itself, it's just about whether the price will fall or rise, which means that for once they will make a profit from it. So just from the differences in exchange rates. It goes too far. I think that goes too far... […] [student 2 agrees with the farmer's point of view] So I think we are just shifting towards

> economics, that we must really think of something completely different. I think that agriculture has a very important role to play. We are the primary sector. That's why I also chose the farming business. Well, like, how can you change the world, eh? When you're 45, you think, right, what else is there for me to do in life and then I thought, OK, that's what I'm going to do. That's something I am really going to go for. I am really going to do it well, you know? And whatever the cost I will shoot myself in the foot and earn less. I used to work in TV where I earned about eight times as much. And now I don't, but OK, I am happier and I really feel like I am doing something useful.

Emphasising this contrast allowed the farmer to reconfirm and further clarify his own attachment. Here, he explicitly indicated that his happiness, way of life and even the meaningfulness of his world depended on it. As a response, some students asked more questions so as to grasp what this attachment actually implied. For instance:

> Student 4: So you think that a farmer in Europe should have twenty cows, twenty pigs, and as many crops he or she needs for the local...
>
> […]
>
> Student 6: So you are actually more fair trade focused then?

Others contradicted what the farmer put forward:

> Student 1: Imagine if the subsidies were completely removed. Then we would still produce food much more efficiently than Africa. And it would still be cheaper.

Or, again, they brought in new concerns:

> Student 3: The shops, they buy as cheaply as possible. And yes it is usually the case that products from Belgium, that are grown here, are more expensive than those that are imported. And they can't be taxed as an import product because Europe doesn't allow that. And if they tax it, yes, that's protectionism. You know, if Europe were to tax something that is imported. And then the others, Europe's trading partners would say yes but you can't do that. You are caught in your structure and you can't just change this structure by saying that you're going to farm in a different way. Well, that's what I think.
>
> […]
>
> Student 2: But isn't it also the consumer's problem, that the consumer must be willing to pay more?
>
> […]
>
> Student 6: So actually you are disconnecting part of the chain?
>
> Farmer: We are shortening the chain. Yes.
>
> Student 3: That is actually what we saw in the exhibition too. That's actually ruining everything.
>
> […]
>
> Student 3: If everyone produces in this way then it will be impossible to produce enough food for the whole of Belgium.
>
> […]

Student 4: But won't you need more agricultural land as well, if you want to work like that? ... You will need more land.

As a result, the assemblage around the issue of sustainable agriculture grew. New actors – human as well as non-human – were drawn into it: shops, taxes, consumers, the chain of distribution, food shortage and agricultural land. The issue was further explored as the newly raised concerns were elaborated. For example the question of agricultural land:

Farmer: We are working on around 1.5 hectare. How many people can you feed with that? ... Well, with vegetables and fruit and ...

Student 2: Only with vegetables and fruit then?

Farmer: Yes.

Student 2: You could also ask, is there meat?

Student 4: And meat?

Farmer: That is the question. That is a good question isn't it? It depends um, how much does meat cost? Meat is extremely expensive isn't it, compared with...

Student 4: But if you want to organise it like that then for a cattle farm it means there must be less animals or you will need more agricultural land.

Farmer: Yes.

Student 4: If you want to keep it organic and keep your manure in your cycle, you need more agricultural land don't you, and you will ...

Farmer: Or look at it in a different way. [...] Look, if you have one hectare that's enough to feed approximately two hundred people for an entire year. But that is, yes that is a completely different way of thinking to one hectare yields so many tonnes of carrots or so many tonnes...

Student 2: And how much agricultural land is there in Flanders? [The farmer shakes his head to indicate that he is not sure]

Student 4: 600,000. 600,000 hectares.

[…]

Student 2: And that's just vegetables.

Student 4: And that's just vegetables, yes.

[…]

Student 2: But do you think that everyone must become a vegetarian or something like that then or do you think meat production will still be possible?

Farmer: I think that meat production is still possible, I like eating meat. But I think that less meat is necessary. [Many students nod in agreement]

Again, the assemblage expanded as the issue was related to new concerns (e.g. land use for the production of meat) which brought new attachments into the discussion (e.g. an attachment to eating meat).

The farmer interrupted the discussion and took the students for a guided walk on the farm. Incited by (sometimes coincidental and unexpected) observations and encounters, the issue of sustainable agriculture was further explored and additional concerns were raised. For instance, a map of the area showing different kinds of land use (agriculture, nature reserves, etc.) drew attention to the expansion of nature reserves and brought about a discussion on nature conservation, preservation of the listed farmhouse and the issue of land ownership. By the observation of weeds on the field one of the students asked questions about the use of pesticides and the farmer explained how he applies biodynamic agricultural techniques that were introduced by Rudolf Steiner. He showed the students the tools he used and the hedges and trees he planted throughout the fields (agro-forestry) and told them how a plague of plant louses on his crops has been controlled by ladybirds. Going further into this issue of pesticides, a discussion arose about GMOs and potato disease (phytophthora) which was a topical subject in Belgium at that time because of a controversy about environmental activists who destroyed GMO potatoes on a trial field. The conversation meandered from this contested direct action over the interests of bioengineering corporations and intellectual property law to the monoculture of potatoes suited for deep-frozen products, contemporary eating habits, etc. A sudden encounter with a fox on the field provoked a discussion about fox-hunt. Through these interactions, the irreconcilability of the attachments to the planet and to conventional agriculture was further enacted. For example:

> Student 1: What's so wrong about spraying with Roundup so they are gone? [laughter]
>
> […]
>
> Farmer: But other things are also destroyed, aren't they? And we want to make the soil more dynamic don't we? If you continue to use your product...
>
> Student 1: With Roundup?
>
> Farmer: Yes, with Roundup, yes.
>
> Student 1: What will be ...destroyed?
>
> Farmer: All the weeds, the soil life that it also supports. There is a lot... a lot of fungi that are all gone. It's all gone.
>
> Student 1: Because of Roundup, really?
>
> Farmer: It is a fairly, well a fairly ruthless product, Roundup.
>
> Student 1: Is it? […]
>
> Another student: You should find out about Roundup, what percentage targets the plant, how much gets into drinking water and everything. It's huge.
>
> Student 1: Into the drinking water, come on... [laughter]

Thus, by further exploring the issue, new actors were drawn into the assemblage: land owners, fungi, brass and bronze tools, plant louses, ladybirds, agro-forestry, Rudolf Steiner, breeders' rights, multinationals such as Bayer and Monsanto, industrial chips and croquettes, freezers, foxes, chicken farmers, etc. Throughout the conversation, the farmer repeatedly emphasised that his striving for agriculture that puts the planet first is not a mere opinion by highlighting that he 'cannot tell another story'. It is what Marres articulates as an attachment.'Well that's my point of view. You don't have to agree with it, do you? But that's all I can tell you'.

Education as a response

Our analysis of this guided tour showed a sustained and profound attention – on the part of both the farmer and the students – for the issue of sustainable agriculture. Throughout the activity, this issue was further explored, studied, and discussed, not in an abstract sense but starting from something that was at stake: the farmer's efforts to take care of his attachment to the planet by establishing a farm. The way in which he spoke about this attachment and about how it affected both his view on sustainable agriculture and his efforts to put this in practice offered the students an appeal to respond to it. In doing so, they raised other concerns and knowledge claims. As such, the conversation created a space for the expansion of the assemblage around the issue at stake and for the articulation of diverse attachments and the enactment of their mutual exclusivity.

Latour highlights that in relation to matters of concern 'nothing is beyond dispute. And yet, *closure* has to be achieved' (Latour, 2010, p. 7 – emphasis added). Marres (2005), too, argues that it is not only essential to articulate such issues and the attachments at stake and to draw actors into the assemblage around it but also to formulate a possible *settlement* for it. Closure or settlement, here, is about an (always provisional) attempt to take care of an issue (Marres, 2005), about 'coming to a decision' (Latour, 2005, p. 21). What our analysis shows is that the care for an issue and the attempt to find a settlement for it incited an interesting *educational* dynamic.

What we observed was an educator speaking about his very singular attachment, thereby appealing to an equally singular response on the part of the students. The students were invited to respond to the questions, points of view, and experiences of the farmer in full recognition of the antagonism, ambiguities, and differences that exist between them (Vandenabeele & Wildemeersch, 2012). Where Marres and Latour speak of closure or settlement in terms of a political process we want to characterise the response that was incited during the guided tour as an *educational closure.* It is a closure which can be understood as a derivative of what Simons and Masschelein (2011) have labelled mastery. They introduce the idea of the teacher-as-master as opposed to the currently dominant image of the teacher-as-expert and elaborate how the latter's relation to the world, to others as well as to him-/herself is based on knowledge and competence (expert knowledge in a discipline or subject, didactic knowledge, and self-knowledge respectively). Mastery, on the other hand, is characterised by relations of *care*. The teacher-as-master perceives the world, or something in the world, as demanding care. The master is, thus, someone who takes up responsibility for the world. This is, indeed, what our analysis of the guided tour or, more precisely, of the interaction between the farmer, the students, and the issue of sustainable agriculture shows. The planet, here, does not primarily emerge as something that has to be known so that this knowledge can subsequently be transmitted to the students. Rather, what the farmer shows is that his attachment to the planet and to a form of agriculture that puts

this planet first involves toil and moil. And, as Simons and Masschelein (2011, p. 25) phrase it, 'it is a question of searching, of being engaged, of caring – that is, of not being indifferent'. Mastery shows itself, Simons and Masschelein argue, in a constant and attentive search for accordance between what one thinks and what one does. The farmer voiced how he engaged in such a search and decided to set up the CSA farm as this was what made sense for him. While taking care for his farm, the crops, and the shareholders and through the decisions he has to make (e.g. as to the use of pesticides) the farmer is challenged time and again to ascertain whether what he thinks and what he does are in accordance. In what the farmer says and does, he presents himself and his attachment thereby rendering himself vulnerable to the diversity of attachments brought in by the students. For the master, Simons and Masschelein (2011) stress, there is always something at stake as (s)he has no indifferent relation to what (s)he is dealing with. The care for his farm can be considered the farmer's very singular response to the issue at stake. While presenting himself and what he stands for, all the same, the farmer exposes the students to something in the world: his attachment to the planet and his experiences of taking care for a farm in a way that puts this planet first. We observed how this showing who one is and what one stands for occurred very explicitly here as one of the students actually asked the farmer 'who he is'. His narrative about an attachment to the planet and his embodied experiences caught the students' interest and attention. It is this very particular attachment to the world that is central in his relation towards the other, i.e. the students. As Simons and Masschelein argue the relation between the master (as a teacher) and the other (the pupils) is in a certain respect secondary. It is the responsibility for the world and the care for oneself being in that world that *opens up* a world for the students. The farmer's attachment to the world invites them to get interested and involved (that is, to explore the issue, expand the assemblage around it, clarify one's attachments, etc.). All the same, it offers them a kind of touchstone. By showing his mastery, by showing who he is and what he stands for, the farmer encourages the students to take up the opportunity to verify whether their own thinking and doing are in accordance. Education as a response (Vandenabeele & Wildemeersch, 2012) thus emerges here as a derivative of mastery: the care for a sustainability issue is central in the master's relation to the students and offers them an invitation to come to *closure* by exploring the issue and the multiplicity of attachments entangled in it and by verifying whether their thinking and doing are in accordance. As such, an educational closure is always tentative as a new encounter, a next invitation to explore the issue, another appeal to a response might of course offer new touchstones.

Concluding remarks

The concepts of attachments, response, mastery, and closure allowed us to articulate how taking up responsibility for a matter of concern can incite an educational dynamic that moves beyond the dichotomy between, on the one hand, teaching matters of fact about sustainable agriculture and, on the other, the cultivation of a sheer plurality of values, opinions, and preferences[3]. The appeal made to the students to respond to the farmer's attachment that is embodied in the farm, the crops, the shareholders, (volunteer) work at the farm, etc. moves beyond an anything goes relativism. At the same time, however, it can neither be regarded as indoctrination considering the efforts made to explore the issue, expand the assemblage around it and enact the mutually exclusive attachments entangled in it. As Marres (2005) puts it: issues cannot be reduced to aspects of (political) discourse; an environment "out there" and the

attachments it brings about is precisely what is at stake. This is indeed what our case study has shown. The farmer's efforts to take care of his attachment to the planet by establishing a farm (out there) – that is, the way in which he strives for a closure in his own way of farming – enables the enactment, exploration, and confrontation of mutually exclusive attachments. The attachment to the world is central in the farmer's relation to the visiting students and invites them to explore the multiplicity of attachments entangled in a particular issue. As such, the guided tour is an invitation for a response (Vandenabeele & Wildemeersch, 2012), for an educational closure by verifying whether their thinking and doing are in accordance, encouraging both the farmer and the students to take into account the multiplicity of views, values, interests and knowledge claims without resorting to an anything goes relativism and neglect of the far-reaching implications and injustices brought about by many sustainability issues.

Endnotes

[1] The analysis we present is part of a broader doctoral research project in which 7 cases are studied (see also Van Poeck, 2013). Besides the present case study we analysed the project *Environmental Performance at School* (Milieuzorg Op School – MOS), an environmental education centre, the *Transition Towns Network* in Flanders, a "transition arena" aiming to make a city climate neutral, a regional centre for action, culture, and youth, and an organisation that offers workshops to promote ecological behaviour change. We gathered data by combining an extensive document analysis with in-depth interviews (19) and direct observations (45). In this article we highlight the analysis of one particular activity that pre-eminently allowed us to grasp the educational dynamic brought about by the search for balance between sustainability concerns and acknowledging pluralism.

[2] CSA came about 1960s in Germany, Switzerland and Japan as a response to concerns about food safety and the urbanization of agricultural land. The aim was to develop an alternative, locally-based socio-economic model of agriculture and food distribution. Groups of consumers and farmers formed cooperative partnerships to fund farming and pay the full costs of what they consider ecologically sound and socially equitable agriculture. In particular, members or shareholders of the farm pledge in advance to cover the anticipated costs of the farm operation and farmer's salary. Once harvesting begins, they receive weekly shares of vegetables and fruit (and also sometimes herbs, cut flowers, honey, eggs, dairy products and meat). Thus, growers and consumers share the risks and benefits of food production and the farmland becomes, either legally or spiritually, the community's farm. As community members directly provide the farmer with working capital in advance, growers receive better prices for their crops and gain some financial security. In Europe, many of the CSA style farms were inspired by the economic ideas of Rudolf Steiner and experiments with community agriculture took place on farms using biodynamic agriculture.

[3] Articulating an understanding of education in relation to matters of concern was the purpose of this case study. Therefore, we focused on an educational *practice* – more precisely on the interaction between an educator, students, and the issue at stake – and on the particular setting in which this emerged instead of on individual achievements or the acquisition of particular competences. As a result, our analysis does not allow to conclude whether or not (all) the students *achieved* closure and how they experienced this. Answering such questions was not the aim of the case study and would in fact require further research with a different methodology. What we did want to bring to the fore, is how the farmer's care for an issue appealed to a response from the students and thereby opened up the *possibility* for closure.

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