

Teaching for an Unknown Future

[Intro]

The focus group discussions often touched upon how educators can handle unknowable, and possible unsustainable, futures. Imaginaries of the future lie implicit in education, not least sustainability education. (REF THEORY CHAPTER?) Uncertainty seemed to be an implicit condition of the sustainable futures crafted in teacher education. This uncertainty is for example illustrated by a warning example featured in a course reading used by participants in two of the focus groups (group D and N): "Nature decides the phase but we can't see its clock". These are the words of American environment scientist Lester Brown, who has set out to formulate different versions of "Plan B" for humanity (Brown 2009). Brown's plan departs from what he calls the failed Plan A, explained in terms of "business-as-usual", and strives to find solutions and alternatives to the current unsustainable development. Brown's books display themes such as the rapid increase of the human population, peaking oil, energy use, food management, climate change, collapsing fisheries, to name a few (cf. Brown 2008; Brown 2009). In one of the books mentioned in one of the focus groups (Group D), Brown claims:

Frågan vi ställs inför är inte vad vi behöver göra, för den saken förefaller rätt uppenbar för dem som analyserar den globala situationen. Utmaningen består i hur vi ska göra det inom den tid vi har på oss. Olyckligt nog vet vi inte hur mycket tid vi har kvar. Naturen avgör takten men vi kan inte se dess klocka. (Brown 2009, 9)

This quote echoes the themes that are of interest in this chapter; how

teacher educators manage limited time, unknowability and uncertain knowledge when teaching sustainability. I explore the tension about, on the one hand, the urgency to do something, and, on the other hand, the worry that these actions are not enough. This tension is interesting because on the one hand, unknowability is a crucial condition for education (Britzman 2010), and, on the other hand, becoming knowledgeable is a prerequisite for education. In recent years knowledge through education has become an important matter of concern, empathized by for instance global and national initiatives to strengthen the request for “knowledge societies” (Hargreaves 2003). When it comes to issues that are hard to fully know – such as issues raised under the umbrella term of sustainability – the teacher educators seemed to be negotiating how to handle the uncertain elements of teaching sustainability. This chapter investigates imaginaries of epistemic uncertainties in relation to sustainability education. I focus on three related areas of uncertainty: *attempts at imagining the doomsday*, *different modes of uncertainty*, and the *management of uncertainties*.

Attempts at imagining the doomsday

The notion of both an uncertain and doomed future were present in different ways in the focus group conversations. By imagining a doomed future, the teacher educators seemed to be dealing with the question of what the point of teaching for a future is if both the teaching and learning subjects, as well as the planet they live on, are doomed. This section looks into how the idea of the doomsday was envisioned in the focus groups.

The doomsday was envisioned differently in different parts of the conversations in the focus groups, as well as differently in different groups. The future apocalypse could mean everything from peaking oil (D) and food crisis (M) to doomsday predictions of the Maya calendar

(G) and humans trying to extinguish all life on earth (G). When the notion of the doomsday was brought up, it was not uncommon that the participants started laughing:

<p>Margareta: Där tror jag tidsperspektiv som du säger, både ha förståelse bakåt att det är föränderligt, men frågan om hur långt tidsperspektiv ska vara just för att, alltså det här med att skapa ångest eller missmod eller resignation hos eleverna när man jobbar med det, det är ju farligt, för det är ju liksom något annat, men jag såg Filosofiska rummet, lyssnade jag på igår kväll, de pratade om tidsperspektivet och då var det en som sa det liksom ”ja men om en miljard år spelar det ingen roll vad vi gör liksom va.. Maria: ((skratt)) Margareta: utan det kommer ändå försvinna” så liksom gör inte ((skratt)) så det finns ju liksom allting</p>	<p>English translation coming up!</p>
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The laughter in this situation indicates how the notion of the final doomsday can be seen as difficult to deal with for the participants; it seems both hard to imagine and hard to grasp. The situation can be read in terms of that in order to see their sustainability teaching activities as meaningful – or at least not meaningless – their perspectives had to be that the notion of the doomsday would somewhat have to be meaningful and not really *real*. This manifestation can be understood as a continuous struggle to form a whole out of a fragmented reality (cf. Dawson 1994, 34). As I discussed in the chapter on theoretical perspectives, imaginaries function as mediators between the perceptual and material world, which is why imaginaries are assumed to play an important role in reshaping societies and environments (Yusoff and Gabrys 2011). Imaginaries explain why sustainability becomes manageable as it forms subject positions in relation to the making of the future. The laughter can here be read as Margareta and Maria's way of forming themselves as subject in relation

to a devastating topic that makes human life (including teaching activities) seeming pointless. Using laughter, even humor, in order to talk about the end of the world, happened in other focus groups as well:

<p>Goran: 2012, är det väl? Gert: va? Goran: ja det är 2012, det sista.. Gert: ja just det, fast det.. Goran: sista året Gert: att Maya räknade så har jag för mig är för att det vart liksom, taleserien vart fulländad då, så därför räknar de dit Goran: man behöver inte räkna längre sen? Gert: nej ((skratt)) Goran: nej, okej Gert: det verkar nog ((skratt)) Gunnar: det löser sig</p>	<p>Goran: 2012, isn't it? Gert: What? Goran: Yes it is 2012, the last.. Gert: Yes that's right, but it.. Goran: The last year Gert: Maya counted like that, I recall it was because of, the series of number was completed then, that's why they stopped counting there Goran: You don't have to count longer then? Gert: No ((laugh)) Goran: No, okay ((laugh)) Gert: It seems ((laugh)) Gunnar: It will probably be alright</p>
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The quoted focus group above was conducted in early 2012, 10 months before Maya's prediction of the end of the world. By referring to the Mesoamerican Maya calendar, a non-Western, pre-modern system of calendars, the participants could talk about the doomed planet in words that made the apocalypse an issue one could laugh about. Perhaps contributing to making the doomsday into a fictional and unlikely scenario. As Gunnar says "it will probably be alright" he creates a reassuring end to the conversation, suggesting that the colleagues and their students have nothing to worry about. These two examples from the focus group display how the notion of the unknown and uncertain future were present, and somewhat managed, in the conversations. Other ways of envisioning disasters had to do with for example the destructive phase of our current economic system and life style (G, D). I will spend the rest of this chapter by looking more in detail into, first, which modes of uncertainties the focus groups were referring to, and, second, by looking into how they handled these uncertainties in their roles as teacher educators of sustainability.

Different modes of uncertainty

Uncertainties were not extracted or produced from a single source, but rather constructed from a number of different points by the production and circulation of different imaginaries. Here I investigate different mode of uncertainty to paint a fuller picture of the cause of uncertainty.

Uncertain technology

Technology can be considered one of the most important rationalities of the modern society, with both positive and negative effects (Gyberg 2009, 177–178). Technology, with its close connections to scientific knowledge, can be seen as part of a society characterized by risk (Beck 1992, 155). The role of technology – socio-technical nuclear energy for example – was brought up in one of the focus groups as a mode causing an uncertain future:

<p>(01:10:43) Gert: /.../så vad vi vet är ju att som de säger att det ska gå kommer det inte att gå, och det finns ju några väldigt enkla exempel som man kan dra för studenterna: till exempel varför det inte blir så, och det är ju då grunden för hur hela det ekonomiska systemet fungerar är ju ganska sjuk /.../ så brukar jag dra fram för dem här att det, vi vet att den mänskliga ekonomin den brukar funka i 300 år och det är deras livslängd ungefär, så när man talar om för folk att det här med kärnkraft det är oproblematiskt för att vi kan ta hand om avfallet genom att avsätta en viss summa pengar när vi startar kärnkraftverket så växer pengarna, samtidigt som avfallet, så då kommer vi kunna ta hand om avfallet i evinnerlig tid för det är ju, vi pratar ju har om hundra tusentals år, och då vet vi att efter 300 år så har vi förlorat kontrollen över det hela, och var finns hållbarheten i det kan man</p>	<p>English translation coming up!</p>
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<p>ju fråga sig Goran: Nej det vore ju väldigt osannolikt att vårt ekonomiska system ska hålla längre eftersom inga andra har gjort det Gert: Nej det brukar ju bli någon sådan här, alltihopa trillar ihop och sedan så hittar vi på ett nytt och så kör.. Goran: Det är bara det att när man står mitt i fallet så ser man det inte, antar jag Gert: Nej</p>	
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By comparing the life span of an economic system with the management of nuclear waste, Gert enacted an imaginary of a society constantly spinning out of control. A contributing factor to this seemed to be a deterministic idea of system collapses after a certain period of time. The impossibility of planning for the future is enacted here, not unlike the management of risks of later modernity as discussed by Ulrich Beck (1992), and developed by Stacy Alaimo (2010). Storing nuclear waste in order to make nuclear energy safe and sustainable enacted the unknown future as a threat. Mats, another focus group participant, expressed more of a linear understanding of technology:

<p>Mats: /.../ Så jag vill nog komma tillbaks till detta att det jag tycker vi vill med hållbar utveckling i utbildning och så i utbildning eller som allmän metafor det är ju att undvika det uppenbart icke hållbara.. ((skratt)) My: Sam... Mats: givet då så att säga våra sociala, tekniska ramar, jag menar det jordbruk vi hade på 1700-talet var inte hållbart visade det sig och sedan uppf, upptäckte vi mineralteorin och vi fick konstgödsel, så fick vi liksom plötsligt en helt ny hållbarhet i jordbruket och vi fick andra miljöproblem /.../</p>	
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Despite an incremental understanding of scientific and technology discovery, Mats points out that the technology of artificial fertilizer displayed unexpected and unknown side effects. Understanding

technology in this way can be said to be in line contemporary ways of dealing with the Janus face of technology. This means that technology is recognized for having unknown consequences, and for developing momentum to which humans need to adjust (Gyberg 2009, 182).

[DEVELOP]

Unreliable actors

Yet another problem of the uncertain future imaginary was that it seemed to open up for doubts about scientific findings in the case of, for instance, climate change. The participants found it hard to delimit uncertainties from unscientific claims expressed by, for example, *the mass media*:

	<p>Goran: The problem is that with some issues there is some critique based on prejudices and unjust arguments, but if it's been reported by mass media we're expected to handle it in some way, to reflect it [in our teaching]</p> <p>Gisela: Uhm</p> <p>Gert: Uhm</p> <p>Goran: For example in the debate on climate change, there have been many unjust arguments</p> <p>Gert: Uhm</p> <p>Goran: From the so called climate change deniers, which I find to be irrelevant, because these are not scientific arguments but arguments which are taken up by mass media, so I find it hard to account for such perspectives</p> <p>Gert: Yes, you don't want to present arguments from the oil industry ((laughs))</p> <p>Goran: Yes</p> <p>Gert: Such arguments you don't want to account for</p> <p>Goran: Uhm</p>
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The participants seemed suspicious of the mass media reports on an issue such as climate change. Here the uncertainty seems to be coming from that the mass media was not seen as trustworthy because of its use of arguments from the oil industry. This suspicion created one type

of uncertainty; that certain actors contribute to the notion of uncertainty, with an effect on the teacher educators' ability to teach sustainability issues in the teacher education classroom.

Another suspected actor contributing to the notion of uncertainty was the *unregulated economic system* inability to affect the local situation in Sweden:

<p>Didrik: Men jag menar blir det bara mer påtagligt för den enskilde, så kommer mönstret tillbaka. David: Ja, det gör det Didrik: Vi behöver ha ett par riktigt varma, blöta vintrar här och, vi behöver ha missväxt på veteskörden i Ryssland och USA, då ska ni få se på saker.. Någon: Mm Dan: Fast frågan är om det påverkar oss i över huvud taget ändå för att jag menar titta på ekonomiska kriserna vi gick ju trots att livsmedelspriserna tredubblats så påverkas vi inte i över huvud taget utav, i Sverige så har vi ju inte märkt av någonting</p>	<p>Didrik: But once it gets closer to the individual, then the pattern comes back David: Yes, it does Didrik: We need a couple of warm, wet winters here and we need the failure of crops in the production of wheat in Russia and in the US, then you will see things happening.. Someone: Umm Dan: But the question is if this affects us at all because I mean if you look at the economic crisis we went, although the food prices tripled it didn't affect us at all, in Sweden we haven't noticed anything</p>
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The current economic system's inability to reflect patterns of climate change in the local Swedish context was problematized here. This problematization created a sense of uncertainty of what was going on and offered a critique of the university education's ability to reflect this development.

Uncertainties in the nonhuman environment

Yet another aspect of uncertainty could be found in how some participants discussed changes in the nonhuman environment. Prescribing nature agency enacted education in a non-anthropocentric way:

	<p>Gisela: /.../ We mustn't forget that, it's both the humans and the nature that will determine our future</p> <p>Gert: Yes, I think like this sometimes; I have said to the students a few times: that we're actually omnipotent, we believe in ourselves way too much, we believe for example that we're able to extinguish all life on earth, but I actually don't think that's possible, there are way too many life forms that don't exist exactly the same way we do that always will have a chance to survive even if we kill everything living, such sulphur fixing and ((laugh)) a number of strange...</p>
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Contrary to the belief that humanity can manage to extinguish all life on earth, Gert talked about how he tells his students that this is an impossibility precisely because there are things living on this earth that we – humans – cannot know or control. Despite our best try, according to Gert, we cannot extinguish life on earth because of the existence of nonhuman organisms and agency that are impossible to know and to control. This insight makes the nonhuman environment into an uncertain element when imagining sustainability in education. The acknowledgment of the agency of nonhuman environment in co-creating the future shows the potential *ethics* of downplaying human impact when trying to change the path towards the future. [Connect to discussion in theory chapter.]

Another aspect of the uncertain nature can be said to be that of the interaction of measuring instruments and a changeable nonhuman environment:

<p>Didrik: men hur är det David, karvar det fortfarande stora ismassor i från våra</p> <p>David: mm</p> <p>Didrik: nord och syd, det är helt tyst, man hör ingenting, hur mycket is är det kvar då?</p> <p>David: du, vi får ju vänta till september</p>	<p>Didrik: But how is it, David, are there still chunks of ice cut from our</p> <p>David: Umm</p> <p>Didrik: North and South, there is a complete silence, one doesn't hear a thing, how much ice is left then?</p> <p>David: Hey you, we have to wait until</p>
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<p>Dan: hm Didrik: jaha, är det då ni får en ny rapport? David: det är då vi ser den största minskningen</p>	<p>September Dan: Umm Didrik: Is that when you receive a new report? David: That's when we can see the biggest loss</p>
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The conversation above displays how the uncertainties of nature cannot be caught with our measuring methods and current knowledge. This makes the practices of extracting knowledge from natural phenomenon into an uncertain practice. However, as Stacy Alaimo (2010) points out, the unknowability makes the engagement with scientific practices a necessary ethical project through the inclusion of agency of the nonhuman world.

Uncertain knowledge

Yet another type of uncertainty had to do with uncertain knowledge. Knowledge were seen as uncertain for three different reasons connected to knowledge as *complex*, *precarious*, and *changeable*. To begin with, the risk of acknowledging *complex* problems – with uncertain outcomes – was here discusses in terms of risking to create passivity in the students.

	<p>Lisbeth: I think teaching is about seeing the complexity and then handle this in some way, if one only deals with the complex, one becomes paralyzed Lisa: Yes Lisbeth: There is no point in doing something if everything is complicated, on the other hand you have to dig in before finding something which can be an acceptable solution for me as a person, that doesn't mean that I deny complexities, but I believe one has to... I can't just leave the students in a state of: "oh, this is so complex".</p>
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One interpretation of Lisbeth's worry here is that knowledge comprising uncertainties needs to be delimited and packaged in ways that aloud for the students to still feel hopeful about the future (REF to

other research, for example Wibeck or Yusoff). There seemed to be a parallel between acknowledging uncertainties as *complex* and becoming *passive* in relation to the unknown. Negotiating between multi-layered complexities and resolvable problems seemed to be what Lisbeth is doing here in order not to leave her students at a passive state without hope. Uncertain knowledge as complex knowledge seemed to be causing a problem for Lisbeth and Lisa and it seemed difficult to deal with in teacher education.

The fact that models used in the teaching could be seen as *precarious* and always changeable seemed to be recognized as a challenge:

<p>Ove: Alltså kunskapens totala relativism måste vi också bekämpa på något sätt. Oscar: visst Olga: ja, men vad.. Ove: Den här modellen vi har om atomerna och elektronerna och så, den är.. håller rätt hyfsat idag men imorgon kanske det är något helt annat. Hur motiverat är det för eleverna att lära sig våra modeller och..</p>	<p>English translation coming up!</p>
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The uncertain models and theories of physics is here considered problematic in order to combat relativism. The uncertainty is highlighted by Ove's claim that the models we have in physics can be something completely different tomorrow. This short conversation piece shows how there seems to be an underlying assumption that scientific models should last over longer periods of time. Dealing with uncertainty therefore incorporates both risks and possibilities and creates a possible battlefield against relativism, displaying an assumption that knowledge ideally should be something stable. (Connect to a discussion on unknowability?)

The third notion of uncertain knowledge is knowledge as *changeable*. If

the knowledge practices we rely on in order to proclaim sustainability to large degree are uncertain and changeable, how are we to convince students of the importance of this issue? David, one of the teacher educators, accounts for a dilemma occurring when his students ask him about the truth of climate change:

	David: /.../ still many students ask "but what is the truth then?" but there is no truth in relation to climate change, it's what our knowledge says today, I can guarantee that in three or two years, when the next report is released, then nothing I said two years ago will be the same... /.../
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As can be seen above, David points to a challenge that he has encountered in his teaching, connected to the changeable knowledge practices of climate change. David's account for unreachable truths in the case of climate change points to the difficult question of what it means to actually know something. Admitting that the truth in changeable and not static seems to be causing a practical dilemma in David's teaching; how can one teach sustainability and yet admit that the truth about an alarming issue such as climate change is constantly changeable? What becomes clear in this example is that knowledge about climate change is possible through a certain unknowability and uncertainty. The role of the unknown shows that knowledge, in relation to climate change, lies closer to unknowing than uncertainty, bringing about a radical potential of redefining the unknown in teaching (Sjögren, forthcoming).

It is interesting to reflect on why uncertain knowledge seems to pose a challenge to the teacher educators. What conceptions of knowledge in relation to sustainability leads to the – in many cases – discomfort in teaching issues that seem to be hard to fully know? I argue that the discomfort rests on a conception of knowledge that might be unfit for

dealing with sustainability issues.

Managing uncertainties in education

This section looks more in detail into how uncertainties were dealt with in relation to sustainability education. I will look both into how fear was made productive, and how the teacher educators made education meaningful despite the mission of teaching for an unknown future.

Making fear productive

Sustainability issues seemed to enact possible – even likely – scenarios of the extinction of the human race. An implicit notion of a doomed planet was present and visible in the focus groups. Some of the focus groups discussed how education should deal with this pressing scenario in a manageable way. *Managing* an uncertain and doomed future was considered both important and difficult:

<p>Oscar: det har ju varit ju så mycket debatt om det här att det ska inte vara skrämpropaganda så att <i>nu blir det så jädra gulligt liksom</i> ute i framför allt ute i skolorna..</p> <p>Ove: ja det är lite..</p> <p>Oscar: hållbar utveckling blir quick fix liksom..</p> <p>Ove: ja just det..</p> <p>Oscar: bara vi gör så där och så där och så har vi vindkraftverk så har det ordnat sig..</p> <p>Olga: så ordnar det sig ja</p> <p>Oscar: alltså..</p> <p>Ove: ja</p> <p>Oscar: det är faktiskt ett enormt hot mot hela mänsklighetens överlevnad som hänger över oss..</p> <p>Ove: ja</p> <p>Oscar: och det är ju viktigt, <i>man får ju liksom inte förlamas inför det hotet va</i>, och det finns en massa positiva tendenser och så, men det är viktigt att vi liksom inte.. så <i>frågorna får inte tappa sitt allvar</i> heller va..</p> <p>Ove: nej</p>	English translation coming up!
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Oscar: det är en intrikat balans mellan de här.. två	
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Oscar describes the balancing act between taking the sustainability issues seriously – by emphasizing possible human extinction – and envisioning them as problems that easily can be fixed. Taking serious the survival of the human species is here contrasted with quick fixes such as wind power and “cuddlesome” education in schools, in which the problems are considered highly likely to be managed and resolved. In this example the notion of the uncertain future becomes a possibility if it is handled as a serious and important matter of concern in education. However, the promising possibility of taking the sustainability issues seriously included regulating the students feelings; the students needed to be able to take the issues seriously without getting “paralyzed”. [WIBECK?]

Several of the participants in the focus groups talked about the necessity of crafting productive fear in sustainability education. Mats, to name one of them, was asking for *more worries* as a productive path for change:

<p>Mats: Fast jag är inte så rädd för oro, det kanske (00:57:23) är så att vi ska ha mer oro Någon: ((skrattar)) Margareta: Ja men... Mats: Ja men fullt seriöst! Margareta: Ja Mats: /.../ och man kan väl säga såhär att har man inte någon riktigt tung anledning att engagera sig för att förändra någonting så är det ju ganska... ”plain sailing” egentligen</p>	
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For Mats, the only way to get students engaged in sustainability issues was to make them seriously worried. Uncertainties could thus be used in education in order to regulate the feelings of the educable subjects; ta shake them into getting worried. Here worries were seen as

productive. Worries were thus considered useful, unless they lead to paralyzation and passivity:

<p>Magnus: jag tror att i hållbar utveckling som det står här [i dikten ”Rektor Brysk”], miljöförstöring, så är det kanske mer det här skuldbeläggande Margareta: Mm Magnus: och skapandet av oro istället för att skapa den goda elevens förutsättningar att verka i samhället med redskap att, att hur kan vi lösa problemen? /.../ för att ge eleverna liksom förutsättningar att verka i samhället.. Margareta: Mm Magnus: för att lösa problem</p>	<p>English translation coming up!</p>
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Magnus did not seem as certain as Mats above of whether worries actually could be considered productive in order to strive for a more sustainable future. For him, it seemed to be most important that the students would be able to *solve* problems in society. Magnus and Mats enact different future imaginaries as they talk about the educational potential of worries. For Magnus, the uncertainties of the future seemed to be manageable and sustainability problems were seen as possible to resolve. For Mats, on the other hand, the future did not seem to be as bright. He managed his worries by proposing more worries in the students, maybe as a way to grasp for a solution to a doomed future.

Uncertain futures were sometimes considered to be presented differently depending on which age group the students were going to teach. Uncertainties, complexities, and risks were considered by Magnus to be problematic if the students were going to teach young children:

<p>Magnus: Men här måste man hålla tungan rätt i mun, för jag tror det är väldigt viktigt vilken åldersgrupp man jobbar med..</p>	<p>English translation coming up!</p>
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<p>Mats: Absolut!</p> <p>Margareta: Ja</p> <p>My: Absolut</p> <p>Magnus: jobbar man med förskoleungar,</p> <p>Flera: Mummel</p> <p>Magnus: eller 1-3, 4-6, då kan man inte, eller man får inte..</p> <p>Margareta: Nej</p> <p>Magnus: skapa..</p> <p>Mats: Det håller jag helt med om</p> <p>Magnus: där finns glädjen..</p> <p>Malcom: Ja</p> <p>Magnus: upptäckarglädjen, nyfikenheten och det är den man måste..</p> <p>Margareta: Ja, behålla</p> <p>Magnus: med karateteknik använda..</p> <p>My: Mm</p> <p>Magnus: för att så småningom..</p> <p>My: Mm</p> <p>Magnus: skapa de här insikterna kring..</p> <p>Margareta: När de kan analysera</p> <p>Magnus: hur komplex</p> <p>Flera: Mm, mm</p> <p>Magnus: omvärlden är, vilka hot, risker, men också möjligheter det finns va, för att sen komma upp</p> <p>My: Mm</p> <p>Flera: Precis, mm</p> <p>Magnus: och det märker, alltså sen när, när de är mogna för att hantera såna här problem då kan man ha mer, för jag tror också att det är viktigt med motivationen /.../</p>	
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Uncertainties were here allotted different weight depending on which age group the future teachers were going to work with. The younger students were going to learn through discovery, and by having fun in order to stay motivated to handle problems related to sustainability. A way of managing uncertainties seems to be to negotiate teaching differently on a continuum of fear and the willingness to action depending on the context. Furthermore, in this excerpt young children are considered to be important for the future; they need to be happy and curious enough to be willing to “do something.” Working to make the children stay happy can also be considered to reflect Magnus, and some of the other teacher educators, own need to believe in to future.

Turning to Graham Dawson (1994), the formation of collective imaginaries create a perspective for the self through which “troubling, disturbing aspects may be managed, worked through, contained, repressed” (1994, 22). Teaching the children hope then becomes a way of still having faith in the future. The importance of holding on to *visions*, despite uncertainties were discussed in other focus groups as well:

<p>Goran: /.../ men det enda vi vet är ju att inget av det [olika tänkbara scenarier för framtiden] kommer att infrias, det vet vi ju säkert, det kommer inte gå så och då tror jag det viktiga är att man fokuserar på visionen, och den kan ju ligga i de här scenarierna i och för sig, och arbetar man här då: vad vill vi egentligen åstadkomma, vad är, hur vill vi skapa det goda livet och det tror jag är viktigt att börja reflektera kring det, vad måste vi ta bort, vad måste vi lägga till på något sätt för att vi ska gå den vägen framåt som är den enda möjliga, ja det kanske finns flera sådana i och för sig, det tror jag är viktigt i det här sammanhanget</p>	<p>English translation coming up!</p>
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Despite the recognition of everything’s uncertainty – and the insight that everything is uncertain and unpredictable – Goran proposed the importance of focusing on visions. The effect of realizing that the sustainability area evokes uncertain issues became to focus on a dream, independently of how “real” that dream were perceived. One could even argue that Goran proposed the necessity of unrealistic dreams in order to make the teaching meaningful. However, dreams and imagination are powerful means for shaping realities and creating the possibility of becoming otherwise (Yusoff and Gabrys 2011, 522).

Making education meaningful

It could be argued that all the different uncertainties accounted for

above result in that the focus group participants would find their work as teacher educators rather pointless. However, the focus groups discussed the issues in different ways that seemed to make their work meaningful. Apart from not causing too much worry (see the discussion above), the participants used different strategies in order to make education meaningful. For example, despite the necessity of fearing the uncertain future, it was assumed in one of the focus groups that education only could claim legitimacy if it held on to the idea that education can affect and change the future:

<p>Gert: man kan inte stå där som motsvarigheten till han med plakatet "världen går under imorgon" ((skratt)) Gisela: ((skratt)) men annars är det ju meningslöst att undervisa om det, om man inte skulle vilja få till stånd någon förändring genom undervisningen</p>	<p>English translation coming up!</p>
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Keeping up the spirit seemed to be considered part of teaching and educational work. Gisela's comment shows the tight connection between education and the future, which makes the managing of uncertainties necessary in education. Another aspect of not losing hope – and of making educational practices as well as education meaningful – is displayed in the next excerpt in which knowledge about vulnerable places is discussed:

<p>Magnus: de sårbara platserna.. Margareta: Mm Magnus: att man i skolan kan jobba med inte bara det sårbara utan adaptationskapacitet, alltså hur, hur förbereder vi för oss när det värsta kan hända? Och årskurs 4 kan mycket väl alltså gå till brandkåren och till kommunen och kommunens planer kring hur de hanterar sårbarhet och risker, var vi än är. Och sedan kan man lägga det i ett globalt perspektiv.. Margareta: Mm Magnus: alltså såhär: var finns de</p>	<p>Magnus: the vulnerable places.. Margareta: Umm Magnus: that in school one could work not only with the vulnerable but with adaption capacity, consequently how do prepare for when the worst thing happens? And year four could go to the fire station and to the municipality and the municipality's policies for how they handle vulnerability and risks, wherever we are. And then one could add a global perspective.. Margareta: Umm Magnus: consequently like this: where</p>
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<p>riktigt sårbara platserna där hot och risker och, för det är också ett sätt som jag sa, alltså kunskap ger beredskap..</p> <p>Maria: Mm</p> <p>Magnus: kunskap ger insikter kring hur vi förhåller oss till vår omvärld här i det här fallet då hot och risker, för alla platser i hela världen har någon form av risk- och hotbild va, (1 sek) så det kan ge en insikt just kring det där med sårbarhet. Och hur man kan skydda sig då.</p>	<p>are the most vulnerable places where threats and risks and, because that's also a way like I said, consequently knowledge gives preparedness..</p> <p>Margareta: Umm</p> <p>Magnus: knowledge gives insights to how we relate to our surroundings and here in this case threats and risks, for all places in the whole world have some kind of threat and risk level right, so it can give an insight to precisely this thing about vulnerability. And how one can get protected then.</p>
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How do we prepare for the worst thing that can ever happen? One answer to that question is of course that we cannot ever prepare for the worst thing to come, precisely because that thing is unimaginable [(Beck?)]. For Magnus, holding on to the idea that knowledge can save us, seemed to be one way. Here, the answer to how we can prepare for the worst things to come seemed to be through knowledge and insights in order to get “protected”. In this way, the worst thing becomes something manageable that can be imagined, traced and resolved. Managing the potential doomsday in this way made education and teaching into activities that seemed meaningful, and important for the future.

Discussion

Connection education – future – uncertainty. → *uncertain futures – uncertain epistemologies*

Imaginations of a doomed human species was, as shown above, present in the focus group conversations, through the intermingling of educational and sustainability imaginations.

The chapter has revealed implicit ideas about education's role in society. Uncertainties were made in many different ways in the focus group discussions. I argue that these different modes of uncertainty has the potential of challenging aims and objectives of education. Living with the imaginaries of a future doomed humanity make educational aims of upbringing the *future* become somewhat irrelevant. However, the teacher educators also used a number of strategies in order to make their activities and practices seeming meaningful. These strategies included reinstalling knowledge as certain and the future as predictable– even when it was not – as well as the glimpses of a regularization that uncertainties and worries/fears are all that we got.

The teacher educator seem to be dealing with this by either trying to decrease the threat and fear, or by decreasing the stress on the possibility of doing something at all. The gap between the a doomed planet and composting and recycling one's garbage, for example, seemed to lead to strategies such as reassuring that something can be done (by knowledge and by learning) or by making fear productive (creating visions for the future). One interpretation of how the teacher educators make education and teaching activities meaningful is by requesting from their students that they should do the best they can – and teach the same to their students (depending on for example age) – while we all are pushing the boundaries of the planet to its absolute limit. The doomsday was certainly part of the sustainability imaginary and for the most part handled *as is* if education could make the future brighter. Imaginaries...

[connect to Baudrillard's SIMULACRA? = ”tecken och representationer som utgår från modellen istället för verkligheten” (Haikola 2012, 45)]