



Action Incontinence: Action and Competence in Dark Pedagogy

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INTRODUCTION

This chapter revisits the action competence approach in the context of the Anthropocene (Pétursdóttir, 2017). The action competence emerged in the 1990s as an effort to critique instrumentalist pedagogical efforts that stress behavior modification and has, over the last three decades, been a strong voice in ongoing debates within research and practice linked to environmental and sustainability education, arguing for *informed action* and the role of *free will* of the learner (Mogensen & Schnack, 2010). Our return to the action competence approach is aimed to make a contribution to its revitalization, where we “revitalize” action competence by drawing out some implications of the Anthropocene for thinking competence and education’s contribution to the development of action competence.

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This chapter is structured in the following manner. First, we will return to the classics outlining the action competence approach in order to substantiate certain key assumptions about the human subject as learner, the conception of competence, as well as the role of action. Second, we will reflect on what notions of temporality, spatiality and causality are at play in these conceptions. Third, we aim to draw insights from the discussion of the Anthropocene in order to rethink these notions and action competence.

Accordingly, the effort of this chapter is not only to revitalize the action competence approach, but also to engage in a broader reflection on the conditions and possibilities of developing the subject's ability to shape and enact the future in the Anthropocene. The foci of reflection that we will apply in the second and third part of this chapter will be on how action competence relates to a notion of individual, human causality that is the main or exclusive focus of the approach, as well as a relating to a past (human historicity) as reference point for future competence. The reflection is here to interrogate: what kind of dialogues with the future are we entering into through education?

THE ACTION COMPETENCE TRADITION

Action competence as a concept of *Bildung* (formation in and through education) is associated with being able—and willing to—become a qualified participant in democracy, where commitment and commitment in relation to the position one has chosen to take is emphasized (Schnack, 1994). The development of the concept was based on a critique of what was considered a tendency toward narrow and problematic approaches focusing on behavior modification in environmental and health education in the late 1980s and 1990s (Schnack, 1994). Narrow and deterministic perspectives on the means and purposes of education, often derived from behavioral psychology, were by Schnack and colleagues portrayed as the opposite of critical pedagogy inspired understanding of education as *Bildung*, where students, as critical subjects, are to be fostered by developing their capacities and ability to take part in critical, formative, and open Bildung-processes (Schnack, 1994).

The concept of action competence itself originated in the late 1980s with the Danish researcher Hans Jørgen Kristensen arguing that: “The question of what students should learn in school with a view to their further path into the next century can be answered with the fact that they must acquire and develop an action competence.” (Kristensen, 1987).

Kristensen further emphasizes that competence to act is not about shaping children and young people into a given society (deterministic perspective), but rather about what “children and young people must learn in order to be able to help shape their own and others’ future” (Kristensen, 1987).

This argument is, as argued above, rooted in a *Bildung*-tradition (derived from the German verb *‘bilden,’* i.e., to shape, to form), which emphasizes general education and democratic formation, and which can be distinguished from “*Ausbildung*” understandings, where the school’s task is primarily education in order to qualify for participation in working life (Klafki, 2011). The *Bildung*-tradition, especially in the form of its reinterpretation in post-World War II Germany, stresses the danger of deterministic approaches to education, where especially Klafki’s later work aimed to highlight their role of developing critical approaches to education that strengthen learners’ ability to openly engage with the content and direction of education (Klafki, 2010, 2011).

With regard to the specific content of such an action competence oriented education, the action competence approach shares strong similarities to Klafki’s critical-constructive pedagogy, and his formulation of the societal ‘key problem’ (epochal key problems) that education must relate to (Klafki, 2010). Such key problems are for example, questions of peace, the environment and inequality, which Klafki describes as universal in a given epoch, in that they are relevant for all human beings. . It is at the same time the confluence of different individual formation processes around these key problems that aligns, at least partially, the process of individual *Bildung* and that of humanity. The basis of this *Bildung*-approach and the resulting curricular outlook is not, as in other European traditions to education, based on or derived from specific academic disciplines or specific academic knowledge and skills content. It is rather a general educational and curricular perspective (*Allgemeine Didaktik*), which must be considered in relation to several of the school’s subjects and topics. Thus, the disciplinary educative traditions and subject-specific contents of education are subsumed to the primacy of a comprehensive educational outlooks (*Bildung*), its purposes and the notion of coherent self as that which is shaped in educative processes. This inheritance from the Klafkian approach to *Bildung*-oriented critical and constructive education sciences, together with Klafki’s emphasis on the democratic educational values—self-determination, co-determination and solidarity—is central to the formulation of the concept of action competence (Klafki, 2011).

With its linkages to German Bildungs-oriented didactics as well as an emphasis on the importance of democratic educational values, the action competence approach shares similarities to other existing approaches to education for sustainable development, such as the *Gestaltungskompetenz*-approach (Haan, 2008) in Germany or the pluralistic tradition in Sweden (Englund et al., 2008).

PARTICIPATORY DEMOCRATIC EDUCATION

The action competence approach was part of a wider reaction toward notions of seeing education as an intrinsic and direct part of economic growth, and a growing focus on the notions of state reliance on education in order to remain competitive in a globalized world (Vare & Scott, 2007). In the late 1980s and 1990s as researchers at the late Royal Danish School of Education Sciences (1856–2000, now the Danish School of Education, Aarhus University) witnessed a growing focus on environmental issues and ties to the new concept of sustainable development (Breiting et al., 1999). This concept was popularized through the Brundtland report and started to seep into educational perspectives on environmental challenges (UN, 1991). Sustainable development established a new, global framework for understanding environmental challenges, but also marginalized former more localized approaches to environmental education (Poeck & Lysgaard, 2016). The specific focus on environmental, ecological and nature-related issues that framed environmental education (EE), were, during the 1990s, expanded to also tap into social and economic issues as well, through the emerging concept of education for sustainable development (ESD) (Læssøe, 2020). This was a time before for example, the comparative programme for international student assessment (PISA, 2002 and on) had impacted Scandinavian educational research and practice, but tendencies to align state and market priorities and use education as a tool to reach such priorities were evident and growing also in Denmark. The notion of ecological modernization put specific links between market driven incentives and solving environmental challenges together (Dryzek, 2005; Hajer, 1995). Organic food made its mainstream debut and education would again be at the center of a discussion of the core value that a society and the education it supports should hold at its center. This greatly influenced the development of the concept of action competence in the north of Copenhagen as a team, forming around Schnack and other key

researchers, set out to critique the educative potential of then current approaches to linking education with sustainable development (Dahl et al., 2011).

Karsten Schnack, as part of the efforts to emphasize the foundation for the development of the action competence approach argued:

There are two different perspectives on education. In the first case, the educational target is of a formative nature, since concerned with a specific critical way of relating to life (...). In the second case, the educational target is limited to acquiring a set of specific behavioural patterns that can help to solve environmental issues here and now. (Breiting et al., 1999)

This understanding of education and the competing approaches and positions it entails, is not only well known throughout continental discussions of the purpose of education, it also opens up for a distinct and normative take on the values embedded within education. The entailing critique of a less nuanced understanding of education as primarily a producer of behavior draws on critical pedagogical perspectives from Klafki. It echoes the heritage from critical theory and the will to engage critically with democratic values through education (Mogensen & Schnack, 2010; Vare & Scott, 2007).

Such an overall understanding of the two outlined approaches to education, and the proposed shortcomings of a focus on behavior modification instead of critical formation became the foundation of the development of the action competence approach. It emphasized the importance of empowered teachers and pupils that were able to navigate questions of power and avoid being manipulated to meet the needs of others. As was argued as part of the project examining environmental education in the Nordic countries:

Behaviour regulation displays the most overt use of power. In itself, there is no harm in that. However, the democracy perspective makes it all-important who exerts such power over whom, in what capacity, and to what extent such behaviour regulations are fair and responsible to weaker citizens. This is precisely what action competence is for—enabling individuals to take part in the use of power, and hence behaviour regulation, in a critical manner. This is the life blood of democracy. (Breiting et al., 1999)

While somewhat grand and sweeping such statements underline the critique of using education as a tool for implementation of specific

behavior, especially without the knowing consent and critical engagement from the learner, mimicking ongoing current critique of the use of “nudging” approaches to solving pollution challenges (Bessant et al., 2015). The critical and formative perspectives must be part of education, according to Schnack, but not only linked to the individual needs and efforts to navigate learning and educational approaches. Another inheritance from the critical theoretical backlog, as well as traces to critical pedagogy is the specific social and political outlook of education according to the action competence approach. While this in itself is adding complexity, the action competence approach adds to this by not only focusing on current social and societal issues that need to be addressed, but also the state of potential futures societies.

Possible solutions and actions need to be considered in this societal perspective. It stands to reason that having environmental problems solved remains first and foremost an adult responsibility. All the same, it is the schools’ responsibility to encourage and prepare their students, enabling them to reflect critically and take part in debating future environmental problems from a societal perspective. (Jensen & Schnack, 1997)

This emphasis on not only current, but also future challenges and the role of young pupils and students as emerging and future adults links the action competence approach liberal education. Schnack and Jensen here draw on a well-established Danish educational take on liberal education:

In liberal education, over and above insight in a sphere of knowledge, there lies the fact that a criterion has been established for utilization of that knowledge, that one has accepted a responsibility for how, when and for what one will use this knowledge. (Jensen & Schnack, 1997)

Understanding the foundation of action competence and the specific challenges that shaped the development of the concept, frames it as an effort to introduce critical theory infused emphasis on *Bildung* and specific societal notions of liberal education. This underlines the importance of addressing environmental challenges as not only localized and something that can be dealt with through behavior modification, but as something that should be understood as part of the social construction of central societal issues that goes beyond limited and opaque use of behavior modification. Action competence thus invests heavily in the role of the

individual learner as the normative critical key character in the continued Bildungs-process of individual and society:

Action competence implies that you will include normative arguments and views in a discussion of what constitutes the relevant issue, and what alternatives and visions can be suggested. This also serves to indicate that when dealing with environmental issues, it is necessary to reflect on normative aspects. In other words, that debating ethical issues makes sense. (Jensen & Schnack, 1997)

An understanding of the core take on the role of education in the action competence approach is seemingly driven by an emphasis on an idealistic kernel, understood as the combination of grounding normativity in how an issue is constituted in an argument. That argument is that a form of normativity is grounded in human will. Thus, the discursive constitution of the issue and the vision for its solution by the human subject “constitutes” the relevant issue.

THE NOTIONS OF ACTION AND COMPETENCE

Based on such an explicit normative ideal of the role of education in society, the group of researchers settled on the concepts of “competence” and “action” in order to describe their Critical-*Bildung*-infused approach to environmental education. While “Competence” in the 2020s reek of the aforementioned efforts by comparative efforts such as PISA and TIMSS to create quantifiable data on the skills and competencies of young people, the concept of competencies did not carry these connotations in the late 1980s and 1990s.

Developing action competence becomes a formative ideal in a democratic perspective. At best, ‘competence’ should evoke associations to something about being able to (and wanting to?) to be a competent participant. (Breiting et al., 1999)

The critical potential of such a concept and the democratic undercurrent of engaging with a participatory understanding of competence were only strengthened by linking it with the notions of action:

‘acting’ needs to be read into the entire complex of distinctions concerning behaviour, activities, habits—and hence actions. Strictly speaking, actions

may well consist of the same movements as kinds of behaviour, yet are invariably characterised by being conscious, reflected, and targeted. (Schnack, 1993)

Action, in the understanding of the action competence approach, differs from simple execution of tasks, as the use of the notion of action in this constellation implies that it is *conscious*. No random faffing about at the will of an old school teacher barking out instructions. The individual learner substantiates her actions through competence and thus moves beyond the limited horizon and potential of deterministic behavior:

Related to an action, there will always be a conscious making up of one's mind, while this is not necessarily the case with a behavioural change which could be caused by pressure from other people (e.g., a teacher or peers) or by other influences such as advertisements. (Jensen & Schnack, 1997)

Accordingly, education is to foster conscious action in contrast to getting the learner to carry out unconsciously a predetermined action. Transforming the battle cry of the Enlightenment "Dare to know!" (Kant 1789) into "Dare to be conscious of your action!" The action competence approach conceives of education as a means to assure that the learner becomes aware of its action.

Hence, the core idea manifests itself as being both idealistic, beautiful and bordering on the naïve:

(We) must understand and explain actions by referring to motives and arguments, rather than to mechanisms and causes (Schnack, 1977). Perhaps, this is expressed most succinctly by the term of intentionality. Actions are intentional. (Schnack, 1993)

What can be seen to be at stake is a logical contradiction as we might ask us: Is there something such as unconscious action, maybe an action that is caused by something that I am not aware of or that was not my attention? The last sentence of the quote above can be seen to suggest that we should not consider such an act an action, as they have to be intentional. It is also here that the core paradox of the "enlightened" action competence can also be seen to be rearticulated in new shape: it puts forward that knowing or, in our case not being intentional, is already *self-imposed* (Deligiorg, 2005; Shell, 2009). Hence, if the learner in engaging

with “making up of one’s own mind” (Jensen & Schnack, 1997) is then that making up of one’s mind must be a posteriori to an a priori intention to not making up one’s own mind; that is, the intention to be not intentional. The initiators of action competence perspective can here be imagined to chant along the lyrics of *The Hives’* classic *Sturm und Drang* Anthem *Hate to tell I told you so*: “Do what I want ‘cause I can and if I don’t, because I wanna.” The issue we aim to address by pointing to the paradox at the core of this reasoning is to show that there is no escape from intention and non-intention. This would already have to be based on the intention to not have an intention. This weird logic can be seen to be articulated in the following classification of environmental action into two main categories:

Environmental actions can be grouped into two main categories: (i) actions which directly contribute to solving the environmental problem that is being worked on: (ii) actions whose purpose is to influence others to do something to contribute to solving the environmental problem in question (indirect environmental actions). (Jensen & Schnack, 1997)

Accordingly, there needs to be something as an intention to let oneself be influenced for category (ii) of environmental action to be a possibility. What is the reason for this intention to let oneself be influenced? Following Kant, we might assume that the action competence approach might put forward “laziness” and “cowardice” (Deligiorgi, 2005).

Hence, there is a quest for action competence, that of the quest of meaning (Jensen & Schnack, 1997) and potentially laziness and cowardice. Yet, meaning and the quest of meaning can be found to lie in the exposition of injustice and inequality. Consequently, we can see the brave heroes of action competence to engage in the quest of meaning by banging their breastplate, and raising their competence dripping swords in a salute: “To Justice and Equality!” gathering the troops summoned by critical theory and critical pedagogy.

Recruitment to the ranks and fight for the cause requires, not only acceptance of the intention of intention, but also commitment to the greater cause. As always, this critique and the development of the action competence concepts needs to be historically contextualized as part of a reanimation of critical theory and pedagogy in the then changing times which saw a growing emphasis on behavior modification, which would develop in the following decades policy driven obsession with all things

quantifiable within global education agendas. In the 1990s, there still was a strong intent to insist on the importance and power of dwelling on the democratic ideals of education:

The action concept implies a deliberate commitment in the acting person—that you have considered the matter and decided to act. Often, the behaviour concept will not encompass this aspect. As a result, ‘behaviour’ and its derivative concept ‘behavioural modification’ private in the shorter and/or longer term? Thus, whenever we talk about modifying student behaviour as an element of environmental education, this tends to signal an education paradigm based on prescriptions and behavioural modification, rather than on democratic elements such as participation, dialogue and co-influence. (Jensen & Schnack, 1997)

These above outlined ideas of action and competence, as imbued within the action competence approach, are not only heavily invested in the idealistic kernel of critical theory and critical pedagogy, but also, today in the third decade of the second millennia, sound as faint echoes of a time where these ideals could still be fought for, without meddling in the ever-changing complexity of notions such as sustainability in times of SDGs and global climate crisis. Today the critical agenda of action competence might seem a bit quaint, mirroring the defeated and paralyzed troops of critical pedagogy, the Left as well as progressivists haunted by fatalism as faint echoes of a lost time.

Yet, back then, action competence was not only part of an ongoing battle over the merits of education in relationship to sustainability and environmental challenges. It also pointed toward the future, toward our challenges of 2021 and beyond. Intentionality was not only caught up in the moment, but also related to future challenges and how the student would engage with these, yet unknown, obstacles:

This democratic perspective for action competence implies that the concept as such is not context defined, in the sense that it points towards specific action possibilities or views of our future society. All the same, it is prescriptive, since concerning our obligation to relate to issues in an impartial and critically responsible manner, and to base our actions on whatever answers we find—thus participating in developing a democratic, equitable, and sustainable society. (Jensen & Schnack, 1997)

The quote can be seen as to appeal to *Bildung* at its purest, seeing education as a process that would not only emphasize the challenges of navigating current societies while drawing on principles and insights from the past, but also reach into yet unknown future societies:

...in order for environmental education to qualify students to tackling future environmental issues, a comprehensive, reflective, and critical approach is needed. (Jensen & Schnack, 1997)

Again, the foundational concepts of critical theory and critical pedagogy are brought to the fore as the omnipotent competence of critical thinking are underlined as the way to deal with the challenges at hand:

As critical thinkers we are engaged in a continual process of creating and re-creating our personal work, and political lives. We do not take our identities as settled; rather, we are aware of the scope of development in all areas of life. We see the future as open to our influence. We regard the world as changeable through our own individual actions and through collective action in concert with others who share our commitment to broader political and social changes. We do not accept the idea that because the things are the way they are now, they must always be this way. And we do not think that we (or anyone else) have the ultimate answer to life's ambiguities and problems. But we do have confidence in knowing, that those things in which we believe, and the actions we take arising out of these beliefs, spring from a process of careful analysis and testing against reality—in other words, from critical thinking. Brookfield 1987 in (Breiting et al., 1999)

And this is where we arrive in our analysis of the original take on action competence: As a formative *Bildung*-ideal, deeply embedded within the critical continental traditions embodied by twentieth century critical theory and aspects of the thinkers associated with the Frankfurt school. Action and competence are entwined with the potential of critical intentionality that invokes the possibility of true democratic participation. Not only was this action competence approach created as a bulwark against tendencies toward behavior modification that seeped into education throughout the 1990s, but it also speaks to the future and aims to establish action competent learners that can continue to critique and intentionally act in order to mitigate the future challenges that they, and the societies they will inhabit will face. As we stated in the beginning of this chapter, the action competence approach has had widespread impact and

implications around the world, for many reasons not in its origin country of Denmark, but across Icelandic, New Zealand, Norwegian and South African educational research and curriculum development the concept of action competence pops up, albeit in new forms and contextualized versions, but still harking back to the roots of the ideas of the original action competence approach outlined above.

EDUCATIONAL SPATIALITY, TEMPORALITY AND CAUSALITY IN THE ANTHROPOCENE

The action competence approach, in its outlined classic form, or one of the newer forms (Carlsson, 2020; Olsson et al., 2019), can still be viewed as both foundational work and something that speaks to and makes contributions to current critical positions within environmental and sustainability education research and practice. Engaging with the approach of action competence, we, in light of what has become to be labeled the Anthropocene and the great Acceleration of global crises, aim to return to the potential routes and paths of action competence, and to revitalize and develop it further through constructive critique. In particular, we aim to address in our critical engagement the notions of spatiality, temporality and causality in action competence in order to illustrate how these notions could be fruitfully re-conceptualized into notions of action and competence in the Anthropocene.

As Morton puts forward in his work on the notions of hyperobjects and dark ecology, we find ourselves living in times where space and spatially are no longer what they used to be (Morton, 2013, 2016). The Anthropocene, following Morton's observations, binds together or twist different temporalities though humans, the planet and other large scale entities into the form of a strange loop, which we can no longer see ourselves to escape from, or realistically cut up and compartmentalize (Morton, 2016). In 2021–2021, we found ourselves inhabiting spaces twisted by a hyperobject called Coronavirus (Bengtsson & van Poeck, 2021). Whereas action competence grapples with notions of *neutralizing* environmental issues (Jensen & Schnack, 1997), Morton insists that this framing of “the environment” as something that can be delimited, addressed and potentially neutralized (as in no longer representing a threat or challenge), is both overly naive, but also a lack of recognition for the weird scale that our planet and its inhabitants operate on.

There you are, turning the ignition of your car. (...) Every time I start my car (...) I don't mean to harm earth (...). My key turning is statistically meaningless. But go up a level and something very strange happens. When I scale up those actions to include billions of key turnings (...) harm to earth is precisely what is happening. I am responsible as a member of this species for the Anthropocene. (Morton, 2016, p. 8)

What Morton can be seen to highlight is that individual human experience of action cannot delineate the positionality or spatiality of that localized action. The example of turning the key of the car and the global warming it produces highlights that there is something happening that is not accessible in the reduction to acting "here and now." The action of turning the key of the car is both my action and not my action, it is both me turning the key and humanity turning the key. The Anthropocene can be seen to signal to humanity "Congratulations! You have now become aware of being part of an entity that operates at global scale, and there is no way back or out."

Action in the Anthropocene, for example the turning of the key, does not confer to the environments that we can perceive, access or understand. Instead of space, or the spatiality of entities over there is, through the Anthropocene, drawn in, turned and twisted into constant and direct links to everything, from the smallest organisms to the state of the thin circumventing layer of oxygen cushioning us from the interstellar void. Action competence can be seen to keep this closeness of entities at bay by "recognizing" global injustice and the "interconnectedness" of regional or even inter-continental environmental issues (Breiting et al., 1999). Yet, it is keeping these entities at bay by separation and distance. Identifying environmental issues through engagement with our local environment, producing solutions and intentionally applying them in order to neutralize the problem is now inherently impossible in the twisted weird interconnectedness of the Anthropocene, globally linked sustainability crisis and the breakdown of planetary systems such as the climate. The extremity of the Anthropocene and entailing global and planetary weird closeness and stickiness of wicked issues such as climate change or space debris pollutants is overpowering educational aspects of identifying and cutting out specific environmental challenges through critical insight, competence and finally action (Morton, 2013).

How do we address the link between Morton's example of turning the key and the 418 carbon dioxide molecules per million that "currently"

(April 2021) float in our atmosphere? How do we understand the weird connectedness that our physical existence imparts on us? How can we conceive critical competence to engage with such vast links that do leave precious little room for the age-old favorite question of journalists and engaged teenagers alike: “but, what can I do?” You can *do* a lot, but to address comprehensively, exhaustively and reasonably the environmental challenges in anything resembling their extended and weird form is well out of reach, as spatiality no longer confines to ideas of neatly packaged or delineated things perceived, the community, the nation state or even humanity (if there ever was something identifiable as such).

Probing into the action competence perspectives on temporality, links with past, present and futures, only continues to muddy the waters of clear-cut understandings of both action and competence. Operating with a historical perspective can teach us about the immediate Great Acceleration that has brought us the calamities framed as sustainability challenges of global warming. By going just a tiny step further, and including the whole history of the human species and its 300.000 (or so) year span, can easily dismiss any clear-cut efforts to learn from the past, and apply it to the present in order to engage the future with open eyes. According to strands within deep history research (Sørensen & Eskjær, 2014), we, as individuals and societies, might face dramas and tragedies, but as a species, or as the species we might evolve into, our current wicked problems represents business as usual as untold hardships are served to us, as they were to our ancestors, so often (apparently) on the brink of total annihilation. In the context of current development of A.I., we might take John Scalzi’s (2010) short story, “When Yoghurt Took Over,” as an entry point to contemplate the temporal and historical aspect that deep history research can be seen to address. In the short story, scientists develop, through the most advanced technology, a new type of bacillus used for fermenting yoghurt. The experiment, while seeming to have failed, turns out to have produced a sentient and highly intelligent species of yoghurt that communicates to the scientists: “We have solved fusion. Take us to your leaders.” Using humanity as a springboard, the yoghurt develops spaceflight ending the story with the observation: “Life from Earth is going to the stars. It just may not be human life.” Hence, we might ask ourselves if the future seemingly intended will be a ‘human future’?

The question relates to the causality at play in intention. Is the intention to be located temporally in the past, and where is it to be located? Foucauldian and Deleuzian analysts have been working since the late

1980s with these perspectives, but something new might be at play here (Gołębiewska, 2004; Semetsky, 2003). What we are suggesting is that the causality of intention might be located in the future anterior. Stretching and expanding notions of linear temporality as found by critical pedagogy, we suggest to rethink the temporality of action competence to be located in an engagement with the future, where that future is bringing itself into being. Competence is in this sense a backward realization of the future in the past. Let us take the history of space flight as an example to illustrate. While the US space mission to the moon has been significantly shaped by the work of Wernher von Braun, who has during his childhood been shaped by the work of Jules Verne and the story “From Earth to the Moon,” we might be tempted to read the Space mission as influenced by the fiction of Jules Verne. Yet, we might consider the fact that Jules Verne also wrote “Journey to the Centre of the Earth,” a fictitious future that did not come “true” (Weingardt, 2011). We might argue that similar to Lorenz work on attractors that Wernher von Braun and others have been influenced by a strange attractor, an attractor that from the future influenced the development of the space program.

The Anthropocene opens up for the weird loops of future attractors imbuing efforts to reconceptualize past and current actions, but also challenges the spatial delimitations as the extreme interconnectedness leaves nothing in a vacuum. No learner is an island, but neither is any given action, thought or educational activity relocated within endlessly intertwined temporality and spatiality. Causal understandings of the links between competence, intention, action and consequence should thus not be approached from limited anthropocentric efforts to pin down and control such processes, but approached from the opposite direction: from the void, where everything and nothing resides in the endless strange loops of the Anthropocene. Such an approach, from the void, renders the action competence, as infused “competence” and “action,” impossible remnants from an anthropocentric twentieth century.

The action competence approach, as envisioned by Schnack, Breiting, Mogensen and others in the 1990s, and since then popularized to a large global audience, represented a critical take on how to ensure that links between environmental issues, sustainability and education did not lead to simple notions of empty vessel pedagogy—merely filling the empty heads of children and young people with qualified information on the challenges at hand. More was, and is, needed, in the form of critical thinking and entailing intentional actions. However, as we have tried to demonstrate

above, notions of “intentional action” and perceived insight into the consequences of spatial and temporal perspectives, clash with the immense complexity, intertwinement and weird relations imbued in the idea of the Anthropocene. The action competence approach might teach critical thinking and informed action, but still relies on an increasingly impossible conceptualization of causal links between knowing, acting and entailing consequences. Action and competence are powerful concepts of the enlightenment and twentieth century critical thinking and pedagogy, but in the Anthropocene, neither concept of action nor competence can no longer be considered ours alone. The Anthropocene signals here to the “competent” learner that the “natural world” of objects is not the passive background waiting for the human subject to set *things* into motion. Accordingly, competence and action are bend and meddled with by what we considered as non-subjects, like the authors sneezing and potentially oozing lethal amounts of virus all over the keyboard. We wonder if it was “our” competence to round up this paragraph and address the editors’ request for clarification or something else’s competence to spread its genome that was happening at “this moment”?

As learners, students, teachers, researchers, citizens, we start to become aware of that we do not “own” or are increasingly unable to impose limits on concepts, objects or phenomena and their entanglement with the world, past and future. Like *Dune’s* guild navigators in training we do in the Anthropocene become exposed to spice-induced visions were we become aware of relations of our actions, as they travel and unfold through time, space (and potentially other dimensions) without fully grasping their consequences or being able to control their outcomes. In the Anthropocene, our expanded awareness troubles our previously held notions of the subjects ownership of both action and competence. As Thacker argues, we no longer have access to thinking the world, or our place in it as prospective of reaching equilibrium or healing a broken planet, environment, economy and sociality:

The world is increasingly unthinkable—a world of planetary disasters, emerging pandemics, tectonic shifts, strange weather, oil-drenched seas, and the furtive, always-looming threat of extinction. In spite of our daily concerns, wants, and desires, it is increasingly difficult to comprehend the world in which we live and of which we are a part. To confront this idea is to confront an absolute limit to our ability to adequately understand the world at all (...). (Thacker, 2011)

The Anthropocene's expanded awareness of the "competent" learner bring to the fore the problem of thinking action in terms of effectuated intentionality, calling, as we argue, for a rethinking of traditional understandings of the role and potential of education. The metaphor of exposure to spice as a way to think the Anthropocene as process of becoming aware or accustomed to is by us seen as suitable as it points out the mutative aspect and break in thinking that we see is happening as well as required. Exposure to the Anthropocene unveils to us the anthropocentrism of the teleological way of thinking action and competence as expressed by the early action competence approaches. Exposure to the Anthropocene renders us aware of actions being caught up with and shaped by things radically non-human. To become exposed means to attunes thinking of competence to a beyond of the confines of human will and intention; our increased awareness highlights how outcomes and intentions of actions are shaped by incontinence. Exposure to the Anthropocene is by us seen as to render aware of the incontinence, *as lack of voluntary control over action and intention as well as the lack of self-restraint when intending or acting*. Any apparent competence and intentionality, not only in and of our actions, but also in educational activities (International Coastal Cleanup day, Fridays for Future, Eco-school, Whole school etc.) are dispersed beyond an anthropocentric web of delineated understandings of spatiality and temporality. To paraphrase action competence: "in itself, there is no harm to that," but it drastically underestimates and limits the impact and potential of engaging with education in light of the Anthropocene (Breiting et al., 1999).

Thus, action, intentions, competences happen, but they are shaped by lack of voluntary control and self-restraint. They are incontinent in that any links to intentionality, cause and effect are more based on selective (intentional and empirically limited) interpretation than anything resembling true control over the outcome of a situation. This should, however, not lock us as educators into an impasse. While initial exposure to Anthropocene could leave us initially at a stage of mutation that focuses on the limitations of the human scope of perception and understanding, we argue for even greater exposure to the Anthropocene and a resulting mutation that can help us to transcend modernist anthropocentric lullabies of critical theory and critical pedagogy.

ACTION INCONTINENCE: DARK PEDAGOGY IN THE ANTHROPOCENE

We suggest exposing ideas of intentionality and human control over actions and their consequences to the notion of always withdrawn nature of any given objects, actions or phenomena (Harman, 2011; Lysgaard et al., 2019). Inspired by emerging thoughts on speculative realism, as proposed by Thacker, it can be argued that action competence and the educational approaches and strategies that have formed much of our educational system continues an intimate relationship with the world that we have put into words and meaning (Lysgaard et al., 2019; Lysgaard & Bengtsson, 2020; Thacker, 2011). This is the anthropocentric part of Thacker's division of the cosmos, or the world into three parts. The *world-for-us*, which is the world as we intend and interact with it, which we interpret and to which we grant meaning, and which is defined chiefly in terms of our intended relationship with it; the *world-in-itself*, which coexists with the world-for-us, resists or ignores our attempts to mold it, and is primarily accessed through scientific inquiry and technological intervention, and finally the *world-without-us*, which does not and cannot coexist with the world-for-us because it is the subtraction of the human element from the world, and is therefore spectral and speculative (Thacker, 2011).

The action competence approach can be understood as a human undertaking to insist on a gradual expansion of Thacker's world-for-us, while insisting on a critical relationship with the world-in-itself, that throws challenges and surprises at us, as it is slowly digested and tamed by human insight and knowledge and turned into the world-for-us.

Arguably, however, we do not even have full access to what we can term the world-for-us. As the links between Jules Verne and Wernher Braun above illustrate, the depths, twists and *conflation* of what we try to conceive as the world-for-us, through education or otherwise are already deeply intermingled with the world-without-us. The becoming aware of this we have labeled above the Anthropocene. Yet, once exposed we can increase this exposure and our mutation by rendering ourselves sensible to how the world-without-us bursts through the world-for-us seemingly everywhere. Our metaphorical excursions, traveling between different planets or introducing nuclear holocaust as a real potential end to all of humanity relates intimately, almost too intimately, with the world-without-us as it bursts through into the world-for-us. To engage with such questions through education there is a need to expose these breaches of the

world-for-us. Breaking with notions of temporality and spatiality that maintain the status of the world-for-us as delimited scene of the narrative of human history unfolding as expressed by action competence is the starting point for exposing ourselves through education to the Anthropocene.

Here we point toward notions of Dark Pedagogy as ways of accelerating our mutation and widening the sensitivity of action incontinence. We are using the term dark in “dark pedagogy” to denote both an ontological position and an emotional, affective resonance. With regard to the ontological position, ‘dark’ aims to infuse educational thought with emerging realist philosophical perspectives on nature’s ‘great outdoors,’ that is to say, sensitivity to how the world-without-us bursts through, in order to mutate the action competent subject in the face of the nonhuman dark. The darkness of the Anthropocene is uncanny in the German sense of *unheimlich* denoting a loss of homeliness and familiarity. In this way, darkness highlights a feeling of loss of place-based identity and culturally safeguarding context. In the encounter of the dark and uncanny, we argue we are encountering a confluence between the world-for-us and the world-without us.

It is hard to deny that the exposure to the Anthropocene and for example the climate crisis tell the competent subject something of profound significance concerning its self-ascribed status as subject and the world-for-us. Exposed to the Anthropocene, the action competent human of good conscience mutates to, first, doubt their status as subject and as well as the flatness of the world-for-us. Mutation sensitizes emotionally and experientially the action competent human to the grip of the *dunkel*, to borrow another German expression. Twilight obscurity (“*Dunkelheit*”) renders ourselves strange, it contaminates from a non-specific moment or renders always-already unfamiliar not only the world but ourselves and how we conceived ourselves by appealing to our intentionality, voluntary control and agency.

Consequently, when exposing ourselves to the grip of the *dunkel*, we immerse ourselves into the world-*X*-us rendering, at least momentarily, exposed and vulnerable to that exposure and engagement with it in action (Lysgaard et al., 2019). “X” marks here the “here” and “now” that as we would like to argue already is saturated or conflated with the spectrality of darkness as *Dunkelheit*.

That leaves to question of how such a Dark pedagogy educational approach and an engagement with action incontinence relates to the twentieth century concept of action competence and could transform it

into something else. Here we return to action competence and the question pondered Jensen & Schnack by the end of the seminal article from 1999:

The question can be asked whether it is possible (or desirable) to aim at a situation where all action are done on the basis of acquisition of a thorough insight and consequent decision making within the spheres in question? (Jensen & Schnack, 1997)

Taking that question as an invitation to immerse ourselves into the world-x-us, we can tease out something dark and uncanny in the question, that is we expose ourselves to the implications of “acquisition of insight.” Where or to whom/what does the insight belong to if it has to be acquired by the addressee of the question, that is the human subject? Action incontinence engages with the premise that question that is it engages with acquiring thorough insight and reflects on what to do with that insight. Yet, it holds that neither insight nor decision is voluntary but exposed and vulnerable to something that is not will or conscious control. The thoroughness of action incontinence draws the subject into the acquisition insight and the temporal and spatial scales that surpass its ability to arrive at “a bottom,” hence there is no solid foundation or basis for decision. Yet, there is in this lapse into this abyss of acquisition of insight the possibility of distancing from basis and decision, that is the possibility of estrangement from basis and decision. Accordingly, action incontinence dives into the dark of world-X-us to expose and alter the competent subject, a fall that however not safeguarded by the safety net of desire nor decision.

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