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Conceptualising uncertainty and the role of the teacher for a politics of climate change within and beyond the institution of the school.

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Abstract

This predominantly conceptual paper foregrounds ‘uncertainty’ and our recent work that interconnects students as political subjects within, and beyond, the school; engaging with human-induced climate change in all its socio-political and more-than-human complexity. It combines conceptual work on Rancièrian political philosophy with empirical work on teaching climate change in a range of schools in the Southeast of England. The paper makes the case for the educational importance of engaging with a Rancièrian logic of politics as a democratic mode of twenty-first century existential engagement. This takes seriously citizenship as a dynamic of schooling, which occurs through momentary rupture that can never be fully pre-determined or foreclosed. The paper applies ideas of a “thing-centred pedagogy” (Vlieghe & Zamojski, 2019) to pay deep attention to the unbounded subject matter of climate change. It explores how such an approach opens the scope of engaging with issues of adapting to, and living with, the ontological uncertainties of human-induced climate change, including the tensions and complexities of how to act within and beyond the school. This includes political subjectification as transformation, by which students (and teachers) take up their freedom to act. The paper integrates interviews with nine teaching staff working with students aged between 4-18 years-of-age, including in local authority controlled schools, academies and the private sector. While the fieldwork was conducted in England, its conceptual emphasis has international relevance, focusing as it does on a politics of schooling for global climate change.

Key words: politics; climate; teachers; citizenship; Rancière; transformation
**Introduction**

Early in 2020, nine-year-old Sophie asked her teacher “Is it true we’ve only got ten years to save the planet?” In that moment, her teacher was unsure what to say to Sophie by way of a thoughtful response. In this predominantly conceptual paper, we integrate theoretical discussion with excerpts from teacher interviews, to think through new schooling practice possibilities that take seriously Sophie’s urgent query about human-induced climate change. Twenty-first century schooling requires that such urgency is attended to with the full weight of evolving scientific knowledge, taught throughout a schooling curricular. At the same time, there is a need for global climate change to be understood as a “thing” that is unbounded, contingent and indeterminate. As such, it cannot be steadied in space or time; rather climate change is complex and diffuse, requiring the acceptance of, and engagement with, *uncertainty*. The paper takes up the trope of ‘getting lost’ (as do, for example, Lather, 2007; Solnitt, 2005; Benjamin, 1999) in order to draw attention to the way Sophie might work out a response to climate change with the support of her teacher. Such “workings out” include what Sophie sees going on around her in the local, and how this extends and interconnects to the world and beyond; what she might do singularly and with others by way of a response; and the implications for her ongoing subjectification in a complex, multi-faceted and, often anxiety-inducing, climate-changing world. By virtue of taking part, Sophie is a political subject engaging with climate change in all its affective and more-than-human complexity.

This paper makes a case for the educational imperative of engaging with a Rancièrian logic of politics that emphasises the equality of all beings to make sense of climate-related curricular. It takes seriously Sophie’s subjective citizenship as a dynamic of her schooling, leaving open the possibility for her to act and to be different in order to transform her world. We draw on ideas of a “thing-centred pedagogy” (Vlieghe and Zamojski, 2019), that aligns with a Rancièrian logic. This rejects both teacher or child-centred pedagogy: instead, the teacher draws attention to the ‘things’ that are worth preserving in the world and requires students to verify their equality through their ability to make meaning of subject-matter. Vlieghe and Zamojski (2019) call this “pedagogical subjectification” (p. 156). Building on their work, we suggest that the subject-matter of climate change is intrinsically unbounded, reaching into every fissure of human experience, including our co-
existence with the non-human. An unbounded thing-centred pedagogy must therefore enable Sophie to engage with the multiple ways in which she experiences climate change, including how it extends deep within and beyond her. This allows her to embrace the ontological uncertainties of it. Paradoxically, this requires Sophie and her teacher to slow down in order to respond swiftly to rapid climate-related changes in the twenty-first century. Sophie’s subjectification therefore extends beyond the pedagogical to the political, where she (and her teachers) are enabled to take up further transformational possibilities to reconfigure an existing order of things, with the option of saying “no” to orthodoxies of practices, including those of the school, that induce climate change.

Throughout the paper, we incorporate the reflections, thoughts and feelings of nine teaching staff working with students aged between four and 18 years in the south-east of England, including in local authority controlled schools, academies and the private sector (pseudonyms are used for interviewees). These are primary teachers (four) and senior managers (two), secondary teachers (two), and a specialist outdoor teacher. Five of the staff were involved in an outdoor-education teacher event that we co-constructed with teachers, that included activities designed to introduce participants to the concept and practice of engaging with the uncertainty of climate change. The remainder were purposefully selected for their known interest in climate change, including their activism, and to ensure the inclusion of a diversity of sectors (i.e. primary/secondary; state/private). The interviews were largely unstructured, focusing on student activism, teaching climate change and the possibilities for engaging with uncertainty. In our analysis, inspired by Maclure (2010) and working interactively online, we shared where the data directed our attention and glowed, while at the same time always zooming out to make connections to the wider data. This became an affective as well as an intellectual process “resonating in the body as well as the brain” (ibid, p.282). We have chosen to integrate aspects of the interviewees’ contributions throughout, using ‘conversation as method’ in our analysis and text construction. Researched locally, the paper none-the-less has global relevance, focusing as it does on a politics of schooling for global climate change.

Our focus on teachers marks something of a shift from our original pre-Covid-19 intentions, which were to explore more directly the teaching of climate-related
uncertainty in the classroom, with data collected from teachers and students. However, we identify with Gallacher and Gallagher (2008) who suggest research is “fundamentally a process of muddling through, sometimes feeling lost and out of place” (p. 512; original emphasis). Unexpectedly, the disruption caused by Covid-19 afforded us an opportunity to attend more closely to teachers, which has refined our conceptual thinking concerning their role in relation to students. We have done this by engaging principally with the recent work of Vlieghe and Zamojski (2019) and Biesta (2020a; 2020b), all of whom draw on Rancière.

Politics and education: a conceptual framework
This section engages with the theoretical apparatus of a Rancièrian logic of an expanded space of politics and education, exploring how this is enacted as dissensual, subjective citizenship both within and beyond the school.

Rancièrian la politique and le politique
A Rancièrian politics assumes that—by virtue of being human—all subjects (including students and their teachers) are political and are qualified to participate in politics as a process of ongoing democratic contestation (Rancière, 2004) of what it means to live and be human. This includes how to act in relation to climate change, within and beyond the bounds of the school. Rancière distinguishes between “la politique” and “le politique”. In so doing, a gap is illuminated which—a Rancièrian logic presumes—must always exist in democratic systems. This gap is between what is established and prescribed (including in relation to the school; ways of doing things; and what is designated as being worthy knowledge to be taught and made to count as part of an official curriculum) and that which demands attention, transforming what is already in place and taken-for-granted. Existing, and a priori configurations of the school and what goes on within it, might be defined as “la politique”:

[an order of bodies that defines the allocation of ways of doing, ways of being, and ways of saying, and that sees that those bodies are assigned by name to a particular place and task… [an order of] the visible and the sayable that sees that a particular activity is visible and another is not, that this speech is understood as discourse and another is noise. (Rancière, 1999, p. 29)

“Le politique”, on the other hand, suggests the possibility of a rupture of la politique in any moment. It queries dominant modes of knowing, doing and being. These
modes might include expectations of what it means to be a teacher or student at any one time in school, in relation to a given consensus, offering alternative ways to know, do and be (Leaney and Webb, 2020). Le politique is therefore about a political relationship:

[a] mode of acting that perturbs this arrangement … whatever breaks with the tangible configuration whereby parties and parts or lack of them are defined by presupposition that, by definition, has no place in that configuration. (Rancière, 1999, p.32)

For Rancière (2003), politics is concerned with a “conflict over the existence of a common stage and over the existence and status of those present on it” (p. 26-27): an ongoing “playing out” between la politique and le politique, which assumes a “contingency of the order [and crucially] the equality of any speaking being with any other speaking being” (p.30). In the context of the school, this means that the construction of a knowledge curriculum, the way it is taught and accorded value, and the social relations between teachers and students, all become sites of political contestation and therefore make for “the possibility of a political subjectivity” (Rancière, 2001, p.1).

Political dissensus beyond the school
The notion of dissensus describes the subjective playing out of the contested space between la politique and le politique. It allows for the reworking of ways of saying, doing and being that define things that are done ordinarily within an institution, such as the school, “bringing into relationship two unconnected things [that] become the measure of what is incommensurable between two orders” (Rancière, 1999, p.42). This is well-documented in literatures on aspects of youth activism, where young people are “implicitly or explicitly entering into debates that involve dissenting from prevailing norms, beliefs, and practices” (O’Brien et al., 2018: p. 42), including the challenging of unsustainable consumption, fossil energy use, addressing issues of social justice and calling for greater solidarity between young people globally (ibid; Bowman, 2020). The dissensual space opened up by the student climate strikes mirrored across the globe, draws attention to students as more than simply “innocents” in need of protection from their school or educational institution. The strikes are a reminder of how young people’s welfare and protection has increasingly been understood since the end of the Second World War, enshrined in the UN
Convention on the Rights of the Child (United Nations, 1989), as also connected to their participation in the social world on matters that they regard as relating to their lives. The politics of participation was picked up by one of our primary school interviewees:

Mike: From a primary school perspective we had a few children out [for the climate strikes]. The head’s perspective was—after a bit—he had the view that it was something to be taken seriously . . . My own perspective was that it was brilliant for connecting with youth from local colleges and universities: that was great . . . the sense that young people could hear from other young people was really important, I think.

The climate strikes highlight competing orders and contradictions of la politque and le politque in democratic schooling. La politque is necessarily concerned with “consensus”, a “reduction of democracy to the way of life of a society, to its ethos . . . both the abode of a group and its lifestyle” (Rancière, 2004, p.306), and le politque, is its “other”, concerned with moments of rupture. This is the difficult space of dissensus within which climate-concerned students (and their teachers), as political subjects with rights, find themselves. It requires a ‘getting lost’—the practice of openness, attentiveness, and preparedness to respond and act; it is the way in which “Activism necessarily unfolds in conditions of uncertainty – there is no knowing what is to be done in any a priori sense” (Gould, 2019, p.32).

The climate protests create public spaces of dissensus that shift regional, national and global reactions, and call into question the role of the school within a democracy (Mayes and Holdsworth, 2020).

Mundane dissensus within the school

Dissensual acts of climate striking have been somewhat thwarted as a consequence of the ongoing global Covid-19 pandemic. The current concerns with student wellbeing in response to the pandemic, which is itself a manifestation of climate change, highlight how Sophie’s earlier enquiry of her teacher reflects a continuing urgent questioning. It also illustrates the possibilities of Rancièrian dissensus that takes place within the school (not only on the streets). This resonates with work of Nolas and colleagues (2017), whose international ethnographic research has focused on reading young people’s “political activism in mundane activities as well as in banal spaces” (p. 7); rather than in the “spectacular and remarkable” (p. 9)—civic arenas assumed by adult authority figures as the spaces of political action that
bring about change. Our own research (e.g. Kirby & Webb, 2020; Kirby, 2019; Webb & Crossouard, 2015) draws attention to engaging with ideas of political activism through children’s common concerns in their everyday social worlds. These concerns are often only lightly connected to stipulated school curricular, including in relation to climate change, which is currently statutorily designated for study just within the geography and science English national curriculum for 11 to 16-year-olds, for example (Department for Education, 2013).

Younger school students in particular are structurally less able to take coordinated collective action on the streets, as borne out by one of our interviewees, Aisha, who feels primary students “can’t leave [school] on their own” and are therefore dependent on “parents to take them”. This places the onus on teachers to observe and to listen to what students are conveying inside school about what matters to them that may/may not chime with what is presented to them through a consensus politics of the school curriculum. The student climate strikes and the everyday anxieties of children expressed within school highlight the need for any democratic project of schooling to designate time and space to consider and problematise what climate science and other climate-change related knowledges resonate with children’s lives. Accommodation of dissensus is therefore crucial educationally, within the framework of democratic schooling. This is not just in terms of what it accords for an equality of speaking subjects (Rancière, 2010), in line with a legislative framework of children’s rights, but also for its ethic of illumination and transformation for student subjectivities, to respond to climate change: both outside the school boundary and beyond the days of schooling, carrying students into their adult futures. An important question therefore becomes how spaces for dissensus, rupture and uncertainty might be accommodated within the existing political ordering (la politique) of schooling with often tightly configured ways of being, doing and knowing. As one of our interviewees, a former secondary English teacher and now a primary teacher, recounted:

Alexia: There’s a bit of space for the pedagogical possibilities of uncertainty within the Early Years, but as you go up school, this becomes more difficult because schools are very certain places: they’re certain in their standards, their rationale . . . and I think generally in their ethos and what they’re looking to produce—not just grading and assessment or data—but the types of children they are looking to turn out.
Politics of citizenship education within the school

Currently, any politicisation of climate change education, such as the national curriculum in England, manifests through an instrumental focus on teaching children to learn technical knowledge and skills. The logic of this approach might be, for example, that they are entreated to become Green consumers, to try to walk/cycle to school, and to recycle, shifting responsibility both to the individual and to a younger generation. This illustrates how a dimension of la politique applied in school “is the increasing tendency to turn political problems into learning problems” (Biesta, 2013, p. 8). In England, the Office for Standards in Education (Ofsted) (2019) includes a focus on citizenship, for equipping students “to be responsible, respectful, active citizens who contribute positively to society” (p.11). Students are given a clear message about the boundaries of their permissible “self-regulated acts” of citizenship (Kennelly, 2009, p. 144), which makes little accommodation for dissensus. Indeed, the education commentator, Toby Young (2019), suggests that school-based citizenship activities should focus on litter picking rather than striking. Several of our research participants documented examples of la politique activities and projects that they had undertaken, or were currently undertaking, delivered in instructional mode, as ways for students to learn that designated acts for citizenship require management of resources and people. These included Eco councils; Sustainability Committees; Forest Schools; solar panels; turning off lights; a “Save our world” day; Green Flag school awards. One primary teacher mentioned a cross-curricular plan for learning different areas of sustainability and climate change each term (which they said felt like “extra work” for “most teachers”).

A Rancièrian conceptualisation of the above examples assumes a politics of schooling for climate change of la politique of “responsible” citizenship. However, such a logic also assumes that there must always be some form of contestation to bring about change or transformation (i.e. le politique). Rancière argues that this “is not [about] a group of political subjects that ‘becomes aware’ of itself, finds its voice, and imposes its weight on society” in the form of only ever carrying out a pre-prescribed set of learning activities. Rather, it is concerned with “establishing oneself as a subject [that] does not happen before the ‘act’ of politics but rather in and through it” (Rancière, 1999, p.40). Rancièrian political democracy for students and teachers in school (as elsewhere) is therefore about a configuration of a
metaphorical stage with the players on it and what their “part-taking” (Rancière, 2001, p.1) might enable them to know, to do and to be.

Since young people’s climate strike actions began in 2018, there has followed in England an increasingly intrusive surveillance and educational authoritarianism that resists and rejects “alternative forms of citizenship” (O’Brien et al., 2018, p. 42). For example, a counter-terrorism police guide, soon withdrawn after publication, advised that teachers should report students for their participation in activities associated with Extinction Rebellion, a nonviolent civil disobedience environmental movement, and those who use “strong or emotive terms about environmental issues like climate change” (Dodd and Grierson, 2020, n.p.). The Department for Education (2020) has since instructed schools (as well as colleges and Higher Education establishments) not to use, “under any circumstances”, materials produced by organisations challenging capitalism (n.p.). Finding spaces of dissensus within the existing configuration of the school is a challenge.

**Dissensus: thing-centred pedagogy**

Within this section, we explore what dissensus might look like in the school, in relation to climate change. We begin by exploring a “thing-centred” pedagogy and its possibilities for dissensus in the form of pedagogical subjectification, before examining how the unboundedness of the thing of climate change opens up greater uncertainty and possibilities for broader political transformation. This entails students taking up their freedom to act both in and beyond the school. We conceive of this through a focus on transformative possibilities offered by uncertainty, which may reconfigure an existing order of things, including the politics of saying “no”. We conclude by emphasising “slowness” as a means to attend deeply to the urgency of climate change and to foreground dissensus as integral to more sustainable futures.

**Pedagogical thing-centred “love for the world”**

Rather than adopting an “education for citizenship” or “education for sustainability”, Hodgson, Vlieghe and Zamojski (2017, p. 18; original emphasis) advocate “defending education for education’s sake”. Their focus is on “love for the world”: “It is time to put what is good in the world—that which is under threat and which we wish to preserve—at the centre of our attention” (p. 19). For the teacher, this means sharing what they know about the world, in order to draw students’ attention to
something they consider important: “come closer, and have a look, this is fascinating! It is worthy of your effort. I invite you to engage with it” (Vlieghe and Zamojski, 2019, p. 527).

What Vlieghe and Zamojski (2019) advocate here is far from enlightenment assumptions of the “teacher-centred”, in which teachers impose established meanings, or progressive “child-centredness”, which requires a delegation of responsibility wholly to the student to form their own understandings (p. 522). Other enlightenment discursive regimes also assume responsibility of “the psychologised individual and her behaviours” (Webb, 2015, p. 285). Instead, Vlieghe and Zamojski follow a Rancièrian logic, in as far as they suggest a thing-centred pedagogy, including a focus on a subject area or school topic in an aspect of the statutory curriculum (or beyond) that is worthy of attention and “gives us to think” (2019, p. 57). The teacher demands an absolute attention on the part of the student, “for seeing and seeing again, saying and repeating. Don’t try to fool me or yourself. Is that really what you saw? What do you think about it?” (Rancière, 1991, p.23). The route that the student is required to take is uncertain, but “we know what he cannot escape: the exercise of his liberty” (Rancière, 1991, p. 23). Everyone is equal to attending to “the thing” in common (both teacher and student), equal in their concern to make meaning. The thing is studied rather than learned through technical prescription: everyone shares differing thoughts or opinions; relates the thing to what they already know/understand; and puzzles over it (for even the teacher cannot have “a full knowledge of the thing”) (Vlieghe and Zamojski, 2019, p. 54). What is important is that students do more than simply say what they think or feel (although this is important), as what they say may be both “wonderful” or else (deeply) “problematic” (Biesta, 2020a, p. 100). Everyone having the freedom to tell their own “story” is more of a neo-liberal than a political or democratic freedom, says Biesta (2017a). A thing-centred pedagogy rather assumes “there would always be a question about how the different ‘poem’ would impact on the ways in which we live our lives together-in-equality, rather than each of us being enclosed in our own story” (ibid. p.69). Biesta (2020a) asserts, opinions and feelings must “‘encounter’ the world” (p. 100) in an education system. This is done through verifying what is claimed in relation to the thing itself rather than to one’s own “needs and interests” (Vlieghe and Zamojski, 2019, p. 58).
People gather around a thing are equal in the sense Rancière has conceived of when he speaks of “the democracy of the book”: a thing is put on the table, so that everyone can see it, investigates it, makes claims about it, refer to it in order to persuade others, etc. (Vlieghe and Zamojski, 2019, p. 57).

A thing to be studied cannot be grasped and fixed, as an instrumental teacher-centred logic presumes. For “things withdraw” and “there is always the possibility of the unknown”, requiring us to stay with our area of study and fascination: to “follow it in its withdrawal”, appreciating that whatever can be known is always partial and constantly reconfigured and can never be fully realised (Vlieghe and Zamojski, 2019, p. 56). What makes sense in relation to the thing is not decided by either the teacher or the student, but by everybody making reference to the thing itself. The private school English teacher we interviewed imbued a thing-centred pedagogic approach in the description of some of his teaching:

Tom: ‘I tend to go in with, the text is the thing, it’s the anchor. I do believe I very rarely full foul of this. I do believe good things will happen if you open a conversation around a good text, and if you know the text, you being the teacher. It doesn’t matter if things come up that you don’t know the answer to, I hope I’m dealing with how to deal with uncertainty all the time, not fixed solutions: allowing for ambiguity, dispute. It’s all meat and drink, it’s all part of the fun. I couldn’t imagine it being otherwise, in terms of English teaching.’

The disruption of le politique becomes possible here, through what Vlieghe and Zamojski call “pedagogical subjectification”. This is evident in a student’s verification of their equality, and “specifically the verification of one’s ‘ability to’ or one’s ‘potentiality’”, as experienced by the student “that she or he ‘is able’ (to do something, to know something, to speak about something)” (ibidem, p. 601, as cited in Vlieghe & Zamojski, 2019, p. 156).

Political unbounded thingness of climate change
Vlieghe and Zamojski (2019) suggest that education is a “condition for politics” (p.157) and separate from the political that deals with “matters of concern” (p.60). However, as Rancière (2004) reminds us, his conceptualisation of politics ‘is not a sphere but a process’ (p.305). We suggest that the thing of climate change is an unbounded thing of deep concern that unavoidably requires a process of engagement with uncertainty, thereby extending the possibilities for both pedagogical and political dissensus. The actualisation of pedagogical subjectification, working with the presumption of one’s equality to make meaning,
offers a conduit into possibilities of broader political subjectification (beyond the pedagogic). The political allows for the reconfiguration of what is apprehended as “sensible” in the world, whether in the school or wider environmental, economic or social system (Rancière, 2004).

The “thing” of climate change is too often tightly drawn within specific (predominantly scientific) statutory and extra-curricular texts and activities within schools. These reflect a technical instructional concern with climate change, as suggested by school responses outlined by our interviewees above. These are examples of the limitations of teacher-centred approaches. Drawing on the pre-enlightenment philosophy of Nicholas of Cusa, de Sousa Santos (2009) foresees this as the shortcoming of a dominant paradigm that turns “the infinite into an obstacle to [be] overcome” (p. 114), where the infinite is about a diversity of experience and ways of knowing in the world. Attention to a thing must extend to its ‘thingness’, including, crucially, how the thing always extends, at any given moment, into the student and out beyond the bounds of the school. Take *The Tempest*, identified by the private school teacher, Tom, as a “good example” of a text that he now “reads differently” to the way he read it ten years ago: currently, he introduces a post-colonial and eco-criticism lens to inform his “conversations” with students. Paying attention to the unboundedness of things has always been core to teaching, to follow the withdrawal of all things, but the urgency of climate change for humans (as well as non-human species) is a deeply felt concern and has a particular relevance for students both now and for their futures.

Other concepts have emerged in support of “thing-theory” as unbounded. A notable theoretical example is Morton’s (2013) “hyperobjects . . . entities that are massively distributed in time and space”, contingent and indeterminate (p.39); the hyperobject of climate change is known to us locally and sensuously, “in that it rains and burns down on us” (p.44). It follows that when studying the text of climate change, placed on the table for everyone to see, interpret and deliberate, it must also be recognised how the global phenomena is at the same time largely invisible, amorphous, and impossible to locate only in one place or time.

The implications of an unbounded focus on climate change emphasises it as a thing that is lived and breathed by a localised body that is globally interconnected.
with other bodies and matter on an infinite scale. Morton provokes our attention to the meshing of the human and non-human, extending la politique of climate change beyond the rational and the fixed into the discursive, material and affective. This includes a shift of attention to how our everyday experiences are entangled with what occurs deep within us and far beyond, where “We are living textbooks on global warming . . . crisscrossed with interobjective calligraphy” (Morton, 2013, p. 42).

Examples of where to focus in the classroom might include the individuated body (the fear of traffic-induced asthma); the private space of the family (a parent threatened with losing their flight attendant job); global geographies (the flooding of a distant relative’s home; a soya-based lunch from the fields of a deforested Amazon region) and consumerist economies (contradictions of fast fashion with messages of recycling). Morton’s concern with the interdependence and mutuality of the human and nonhuman contrasts to that of western modernity’s separation of the two, as currently assumed in the English National Curriculum. Such a separation is now a recognised driver of environmental damage: “The Newtonian-Cartesian idea of time and space as neutral containers in which objects float is now ended, decisively, in our everyday experience of the ecological emergency” (Morton, 2013, p. 39).

Climate change is felt, imagined and thought about through diverse sensory engagement and movement, and is connected with what can “change you, expand you” unpredictably (Massumi, 2015, p.11). The interviewed teacher, Alexia, describes the way in which “climate change terrifies people, rightly so: they like terror when they see a film, but not existential”. This, she says, is “psychically exhausting”, but also carries “with it possibilities and with that maybe hope”. In our outdoor event with teachers, we engaged them in imagining their “hoped-for-school” of the year 2030, and to sculpt such hopes as a group, using things found in the wood, rooting imaginations to the sensual and material of the present. Although using hope to connect to an imagined future, we experienced the feelings, sounds, sensations of the outdoors of an autumnal afternoon very much in the moment. As Vlieghe and Zamojski (2019) remind us, hope, in a Ranciérarian logic, is not to be reduced to a mere “teleological account of history … a necessary step on the way to a brighter future” (p.364) but rather, it is connected to how it might “speak to us, now” (ibid; original emphasis). This idea of “hopeness”—“hope without a vision of the hoped for” (ibid) speaks to the power of the dissensual possibilities of writing and art. Ghosh
(2016) suggests both act as a means “to find a way out of the individualizing imaginary in which we are trapped” in relation to climate change (p.135), offering the possibility of that which is heterogeous to a given sensible world of la politique. In the outdoor event, we also explored the value of metaphor and imagination, including using familiar stories, such as Michael Rosen and Helen Oxenbury’s *We’re going on a bear hunt*, to emphasise diverse ways of being in the world and the importance of collectively engaging with uncertainty. Attention to feelings, including anticipations of the future (Miller, 2018), can help to figure out human concerns and desires. This is important, because assumptions of la politique can silence feelings and divergent sentiments, leading to an avoidance of action (Phoenix et al., 2017).

Attending to the unbounded nature of climate change suggests the value of also going outdoors. This offers distance, away from la politique of the classroom, and provides a ritualised transitional space to attend in different ways, in order to act beyond existing “common-sense” behaviours, including those that lead to environmental harm. Being out in nature enables students to experience the materiality of “climate” (including unseasonal warmth) and biodiversity threats; and new possibilities for embodied, affective and material entanglements. For example, Alexia, describes how when teaching in the outdoors, her students get the “feeling of warmth, for wind in your hair, your feet on the ground rather than sitting, that you might be doing inside. So from a sensory point of view, the outside is very rich”. Skolverket (2012) identifies how the materiality of such outdoor things “do something with the children, making them want to look carefully at, feel and explore” (p. 27, as cited in Lindgren, 2019, p. 6). Such close attention affords “different ways of knowing”, including intuition, sensibilities and imagination as sources of information alongside reason and facts (Sánchez and Escrigas, 2014, p. 62). What Alexia has noticed at her school, however, is a reluctance of other teachers to utilise the outdoors, both by simply replicating the indoors (i.e. taking classroom resources outside) and by an avoidance of risk:

Alexia: There was a lot of discussion about why we couldn’t take them [students] to the beach, a few minutes away, all about safeguarding and risk. It was quite a difficult class in terms of behaviour, so I suppose that was a factor, but I thought how mad not to take them to an environment to learn about the outside word. Instead, [their playground] with astro and high walls, not a lot of mud or leaves, felt hermeneutically sealed.
There is always an elusiveness of a thing, such as the text of *The Tempest*, but something as unbounded as the subject of global climate change emphasises the infinite in the finite. The recalcitrance of the thing of climate change refuses to comply with human ideas and expectations of it, altering the very conditions for dissensus. Such uncertainty demands a “humility” both in relation to what is known about “human experience” (de Sousa Santos, 2009, p. 115), and multiple “ways of knowing” (p. 116). Uncertainty offers momentary possibilities for the reconfiguration of politics, by extending spaces of dissensus to transform an existing order of things. This is already recognised in other fields that have drawn attention to the necessity of engaging with uncertainty to respond to twenty-first century complexity (e.g. Kay and King, 2020; Scoones and Stirling, 2020).

**Uncertainty of the student and the teacher**

Teachers themselves are grappling with the complexity and uncertainty of climate change: they are therefore both a subject and object of it, as they are placed in and walk through it sensorially, spiritually and materially. Climate change is therefore less a text on a table simply to be dissected, but more a thing we are always already *within*, a thing that is working on us before any political discussion or dissensus even begins: “We find ourselves inside them [hyperobjects], part of them yet not part of them” (Morton, 2013, p. 39). Subjectification, suggests Biesta (2020a), is about a life-long commitment to “grown-up ways of trying to lead one’s life” (p. 97). In the context of climate change, it is no longer sufficient to leave unquestioned the purchasing of new clothes, as well as the implication for garment workers in the Global South if no one buys the new clothes they make, for example. For the teacher, this is about arousing in the student “a desire for wanting to try to live one’s life in the world, without thinking oneself in the centre” of it (p. 97-98), which includes engaging with the complexity and uncertainties of climate change. At the same time, it demands of the teacher that she too attends to her own subjectification, as she is integral to the dynamic of the transformative space. This dual role is difficult for teachers. One primary teacher interviewee, for example, grappled with how he might live his life in relation to the threat of climate change: having “that particular feeling of uselessness, or sort of defeat already, in face of such adversity”, identifying himself as “too small to have an impact” given its “complexity”.
A Rancièrean logic identifies the teacher, paradoxically, as unique and not unique: unique in demanding the will of the student to make meaning, whilst attending to the equality of all speaking subjects to set in motion the students’ and their own interpretive and emotional capacities, including the political resource of curiosity (Rancière, 2007, p. 263). This degree of attentiveness is afforded by moments of getting lost. For example, the private school teacher explained that he has been teaching a climate change enrichment programme, which includes the science about which he feels lacking in expert knowledge:

Tom: It was very conversational, what we might do about it [climate change]; what the world would do about it. There was a lot of uncertainty there, but how could there not be? It would have been absurd to produce myself as an expert. I was quite uncomfortable, and I was asked questions that I didn’t have the knowledge to answer properly: there was no getting away from that. It was still productive, I think.

Tom remains thing-centred, in the way he does when teaching *The Tempest*, but his heightened not-knowing when teaching climate change emphasises his equality to make-sense alongside his students. This demands of him, as much as his students, what Keats called “negative capability”: being open to “uncertainties, mysteries, doubts”. This includes “an aversion to forming comfortable, but in reality unsatisfying, resolutions” to climate change (Wigod 1952: p. 384, as cited in Lilley, 2013), in order to explore the possibilities of diverse thought and outcomes, to decide how to act. Educationally, this resonates with Biesta’s (2017b) work on the purposes of education. He asserts that students need a teacher to ask how they want to exist in the world, and whether what they desire is desirable, both for their own lives and how we live together with others on a planet with “limited capacity for fulfilling all the desires projected on to it” (p. 4).

Assumptions of la politique are currently implicitly made about climate change education that extend beyond the school gates, with the expectation that children will in turn educate others, including their families, on living sustainably. What this demands, but is currently not made explicit, is the complexity of how children must navigate the difficult border crossing between school and home (Phoenix et al., 2017). For example, a common school message concerns the importance of walking to school, but for some families a car is valued to them because it might “communicate something of themselves to the world” (Alam, 2020, n.p.).
recognition of the complexity of these issues is felt by an interviewee, a secondary academy teacher, who is informed about transport carbon emissions and has strong personal views about not flying, but is wary of how to discuss this with her tutor group:

Joyce: Issues of whether you should fly, that is really a conversation to have, it relates to climate change, more than recycling. It would make a difference. But I do know that kids don’t have that much money, if they are flying somewhere and they went home and saying I shouldn’t be flying, I wouldn’t blame parents if they said who the hell is Ms. [name of teacher] to say that. Maybe I’d feel less mindful of it in other communities.

Joyce’s position starts from what Vlieghe and Zamojski (2019) identify as the “vulnerable other and the need to take protective measures” (p. 106). This is in contrast to Tom, the private school teacher, who feels confident opening-up difficult conversations with his students, including, he says, “about their privilege” (for example, their overseas holidays and large cars with high fuel consumption). Tom offers an example of sharing his “unconditional love for our world” (Vlieghe & Zamojski, 2019, p. 25) related to the subject of climate change, that includes sharing existing radical alternatives to capitalism. Adopting a thing-centred pedagogy, Tom explains how he remains “careful” not to push an agenda: “you have to be the teacher, not shoving anything down anyone’s throat, listening to all ideas, not trying to adjudicate, it’s a group thing. And step back from being too authoritative about it: that wouldn’t be appropriate.”

For Vlieghe and Zamojski (2019), the gift of teaching subject matter emphasises what is intrinsically good and worth preserving: not to fix knowledge, but to enable students to study it and ‘to start anew with this thing’ (p.526). Drawing on Arendt’s concept of natality, they emphasise that what is shared is gifted to a new generation to regenerate the world. An openness to the emergence of something new is integral to the Rancièrian (1991) conception of le politique. Biesta (2020a) emphasises that students must have the freedom to take up what teachers offer “in their own way” (p.96). However tempting it might be to control what others do, he stresses, the danger is that this transgresses the idea of the equality of all intelligences, which does not assume some are knowers and others as ignorant. The
unbounded subject matter of climate change is an example of forces that “come” at students, “both from the ‘outside’ and the ‘inside’” (Biesta, 2020a, p. 95). It is therefore the role of the teacher to provide the very conditions that might render it possible for students to be made aware of, to study, and to respond to these multiple forces. This includes reminding students of their freedom to renew the world, by responding to matters that concern and touch them deeply. As such, educational subjectification extends beyond pedagogical subjectification into the broader political realm of le politique, holding open the possibility of subjective transformation which reconfigures a more sustainable world. When thinking about climate change, we cannot wait for children to leave school and enter adulthood before they have opportunities to trace the unbounded nature of climate change through their unique responses to the curriculum.

Bucking the trend and saying ‘no’
The private school teacher, Tom, has the scope to challenge aspects of la politique in a school where his passion for climate change is “indulged”. He describes it as “quite funny” to find his enrichment class has contravened the Department for Education’s directive on avoiding anti-capitalist thought. In contrast, the academy teacher, Joyce, is fully aware of “working with the constraints of what is permitted”, and therefore tries to “avoid discussion on having time off school for strikes”, not because she feels it is an invalid topic, but because “my school doesn’t support students having time off, as far as I know, so it would have been a rebellious act”. The Reception teacher, Alexia, identifies more scope to be uncertain when working with younger children, but she has felt it “exceptionally draining and exhausting” having to find ways to “come up with the acceptable face” of so doing, which means framing it in the discourse of “effective learning and learning goals”. Under Covid-19 lockdown, however, when she “wasn’t being moderated” and there were fewer children in class, such possibilities opened up:

Alexia: Attention isn’t split in the same way, if a child tells you about something at home, you can genuinely turn your whole body towards them and listening to what they’re saying, not to evidence something, but you genuinely want to know. You’re in a relationship with them, maybe it will enable you or them to make a connection or for something to happen.

Biesta (2020a) stresses the importance that students ‘get’ teachers’ intentions, and in turn students may say these intentions were “helpful, meaningful,
even if, initially, it was difficult to receive” (p. 103–4). However, he draws attention to how the beautiful risk of education entails “a possibility, and there always should be a possibility, that our students take their freedom and then turn back to us and say they don’t want—or, perhaps more importantly, don’t need—our intentions” (p.103; authors’ emphasis). This might also include seeking out alternatives to what has been gifted, such as aligning oneself to ‘degrowth’ movements to combat climate change (Paulson et al., 2020).

There is a current denial of children being permitted to say “no” to adults in schools (Kirby, 2020), which limits but does not extinguish the possibility for their subjectification. A child we know told us that he refuses the weekly offer of a plastic toy as a reward for reading, because he worries about plastic in the environment. He has not told his teacher the reason: his “mode of acting” could be said to be premised on his equality to act for sustainability, disturbing assumptions of la politique, which assume the teacher has superior environmental knowledge (Rancière, 2003, p. 30). Refusals may also occur after students complete their schooling: Tom, for example, told us that former students have written to the head teacher complaining of the school’s colonising curriculum. In relation to climate change, striking students are already looking ahead to how they might look back to this moment in time:

[My parents] think that me getting this day of education will be more important than making a stand against the systematic oppression that is happening… I think it’s really important to do this because if we are successful and, say, however many years in the future I have all these amazing stories to tell my grandchildren about what I did to help. – Mickey (age 17) (as cited in Bowman, 2020, p. 1)

Urgency of slowing down

Teachers have intentions to teach “knowledge, skills and understanding”, and “values, attitudes, ways of doing and ways of being”, and, as mentioned above, Biesta (2020a) stresses that it is important that students “‘get it’ and that they “get it ‘right’” (p. 102). However, Biesta critiques la politique of the current education focus on efficiency, pace and predictability, aimed at reducing the risk that students will not “get it”, to the point that “education becomes nothing but perfect reproduction and thus turns into indoctrination”, where there is no longer “an opportunity for students to exist as a subject” within educational institutions (p. 103). Their subjectness is
core to the educational goal of subjectification, therefore a central concern for teachers, in addition to what Biesta (2009) identifies as two other purposes of education: skills/knowledge and socialisation. Subjectification requires the need “to make room for ‘students’ sense-making—which teachers indeed cannot do for their students—and for exploring the unknown or the not-yet-known” (Biesta, 2020a, p. 103). This demands a “slowing down”, in order for students to meet the real of the world, and to meet themselves and “one’s own desires in relation to what is real”, in order to “‘work through’ all this” (p. 98). An emphasis on slowing down is in stark contrast to the descriptions that several teachers gave us of the fast pace of their school lives. For example:

Joyce: You’re trying to move very quickly through the material, and always trying to distil down, not teaching for the test, but teaching for pace and to keep going. The first thing with uncertainty, is it requires you to really slow down. That’s not something that students know how to engage with, and it’s not something I’d know as a teacher to engage with, because it’s so counter to normal ways of working. . . So there are all these rules that you consult the book on, otherwise you’d not know how to operate. The culture to account for all of your time is the underlying environment to work in. . . There’s the constant stress and on-the-go-ness: what am I doing, what next, the next thing? It’s difficult . . . I’m in the basement and have to run up four sets of stairs from one maths lesson to the next, so that I hand out the [lesson] “starter” and then I collapse. They [the students] find it funny, but I do wonder what is the unconscious message that it’s sending them, that their teacher is running to lessons. It’s an odd framework to be working in, especially when dealing with humans.

In our own outdoor event with teachers, we invited them to find a sitting-spot of their choice in the woods, and to become aware of what is around them as well as their feelings; to think what they would like to ask the thing near to them (such as a tree); and what it might teach them. The activity emphasises paying attention to the world and our interconnection with it, as the Nobel Prize winning cytogeneticist, Barbara McClintock, emphasises, it is important to develop the patience to “hear what the material has to say to you” (as cited in Sheldrake, 2020, p. 76). Equally, it highlights the paradox of how we need slow time to attend deeply to the breadth and complexity of climate related subject-matter, in order to respond to its urgency.

Many of our interviewees highlighted how the current urgency in schools is instead directed primarily to a tightly bounded curriculum of an existing political and social order, which is aimed at getting students ready for an imagined certain future
world. This keeps them in a constant state of preparedness for politics, working with the assumption that politics is beyond the school rather than as Rancière asserts, configured in an on-going process of subjective enactment. The academy teacher, Joyce, has received no directive from her senior management team to discuss climate change, in “tutor time” for example, although she has introduced it herself on a few occasions. In the private secondary school, Tom regularly discusses climate change in tutor time, and offers additional “enrichment” activities on it that students can volunteer to attend. With the teachers we interviewed in primary schools, those with “passion” for climate change action have to be “grounded” to ensure that the “other [statutory] priorities” are foregrounded, including in one school identified as “progressive”. Following our outdoor event with teachers, a couple have been keen to provide opportunities for their students to “get lost” in the outdoors, acknowledging that both they and their students require a process of inauguration over time, in short-bursts, into a thing-centred pedagogy demanding attention to the world:

Adele: I found it useful to experience that myself and take to my class. I think we need to keep practicing. . . . I asked them what do you notice? Getting lost is noticing these things and paying attention. Whereas in fast-paced lives, so busy, we don’t have time to listen and notice. That’s what you do when you’re lost, you’re in that moment, that’s when you feel things, and thinking about that moment, and that’s a good thing to practice with children. Especially in school, when it’s so timetabled, you’re straight onto the next thing. And giving us adults time. And I don’t think we’re used to it. It takes practice for us.

Conclusion
Teachers need to attend to the thing of climate change, and this includes listening closely to students’ current concerns, as expressed on the streets during the climate strikes but also in quiet rejections of plastic toys in the classroom, for example. Their demand to be heard as citizens has implications for the politics of schooling. A Rancièrian logic of politics has enabled us to take seriously the complex role of the teacher in relation to what it means for students to act for climate change (le politique). This has involved us shifting our research gaze away from the street and into the mundanity of the everyday of the school, where the teacher is concerned with their intention to share what they know (that which is apparently “beyond politics”), whilst allowing the political to appear through students’ responses that are
taken seriously by the teacher. In taking students seriously, a degree of uncertainty is entailed: given the unboundedness of the subject-matter of climate change the uncertainty proliferates across multiple domains. Such moments of uncertainty offer a rupture of la politique, and the possibility of alternative ways of knowing, doing and being that are necessary to address human-induced climate change.

Time is not on our side, given the threats to the planet and students’ concerns about the climate that relate to their lives now, as well as in the future. We cannot wait for Sophie to write back to her head teacher as an adult, to say that the curriculum did not address her concerns. The point of school curricular “is not to ensure that children get an accurate understanding of it, but to provide children with the opportunity to engage with content deeply enough to respond responsibly to it”, say Osberg and Biesta (2007, p. 48; original emphasis). This demands a degree of “undecideability” in the curricular content, which assumes an engagement with uncertainty, to ensure its sensitivity and responsibility to the “contingency of the present” (ibid., p. 48). We might do well to take a lead from an artist who engages with uncertainty and paradox, Italo Calvino (1988), an advocate of the quickness of shorter literary terms: keeping focused on an image of what can be achieved, whilst patiently identifying appropriate arrangements (“mot juste”) for its implementation. His preferred motto seems appropriate for the paying of attention to climate change in schools: “festina lente”, make haste slowly (p.57).

[WORD COUNT: 8,575]

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The data is not open access to ensure anonymity and confidentiality given the complexity of de-identification.
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The research was approved by the University of Sussex’s Social Sciences & Arts Cross-School Research Ethics Committee (C-REC).

Conflict of Interest
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