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3 **Seeking space for entanglements with young children in immanent material relationality**
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5

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Abstract

This paper explores haptic, affective, sensory and relational interconnections between a child (Erik) and objects, materials and a researcher-practitioner (Christina) at a nursery school in Manchester , United Kingdom (UK). In doing so, it draws upon a Post-humanist theoretical framework. Observational material was collected over the period of a school year. The discussion involves a diffractive three-way ‘thinking together’ conversation between the authors about what emerges as we attempt to listen to Erik’s voices. Improvisation in moments of physical sensation and action with objects, materials and Christina becomes a vehicle for tentative openings and immanent possibilities for all enfolded in the encounter. These are entangled, however, with national and international neoliberal expectations regarding literacy, numeracy and school readiness. We conclude that ‘dissenting from within’ is a necessary ethical practice if we are to offer something more optimistic for children’s becomings than acquiescence in the development of human economic capital.

Key words

Post-humanism; the haptic; thinking together; school readiness; being and becoming

Introduction

This paper stems from a small-scale professional development programme, 2-Curious, developed in response to expanded numbers of government-funded places for two-year-olds. The project began in summer 2014 and ran over seven sessions until January 2016. Participants were six early childhood academics from Manchester Metropolitan University, UK, where the development programme was hosted, and a similar number of practitioners from half a dozen local early years settings. An important part of the project was to encourage participants to trouble dominant beliefs about two-year olds. This troubling was brought about by taking part in the sorts of everyday experiences commonly provided for young children (for example den making, box play) and considering their underlying assumptions. We were interested in ways of knowing beyond the literacy, numeracy and school readiness behaviours which preoccupy the Department for Education (DfE 2017) Early Years Foundation Stage (EYFS). We sought to attend, additionally, to tactile sensations, the haptic, the affective and other aspects of the world that children inhabit. Previous papers by two of the current authors (Barron et al 2017; Barron and Taylor 2017) and by others who took part in the project (Gallagher et al 2017; Holmes et al 2018) provide further information about the development programme.

This paper is concerned with practice in one of the settings, Martenscroft Nursery School and Children's Centre, which has been committed to finding ways of enabling children to engage with learning experiences that go beyond the preoccupations of the EYFS. The school is faced with the tensions of working within an accountability culture where meeting prescribed requirements is critical to how the school is judged and where, as Roberts-Holmes and Bradbury (2016, 610) note 'young children could become reduced to the school's statistical 'raw materials' that are mined and exploited for their maximum productivity gains'.

When reviewing the literature, Braidotti's references (2002) to Middlemarch led Ian to re-read Eliot's novel (1871-2/1994). Middlemarch is concerned, amongst other things, with notions of

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3 betterment and, critically for this paper, with the place of emotion and the advancement of
4 knowledge. Ian was particularly drawn to Will's assertion that 'discernment is but a hand
5 playing with finely ordered variety on the chords of emotion ... knowledge passes
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10 instantaneously into feeling, and feeling flashes back as a new organ of knowledge' (Eliot
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13 1871-2/1994, 207). In relation to our interests in this paper, we might think of how knowledge
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15 guides the touch of the physical hand, giving rise to sounds that stir a variety of emotions which
16
17 in turn create new ways of knowing. Feeling and knowledge then spring back as subtle changes
18
19 to the way in which the fingers play the chords in an enfolding, intra-active, iterative and
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21 unknowable process. This finds resonance with our interest in the idea that reason is entwined
22
23 with the material, haptic and affective in how young children experience and create their
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25 worlds.
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29 The paper draws upon a Post-humanist/New Materialist theoretical framework, seeking to
30
31 explore children's learning beyond the usual emphasis on cognitive learning. We seek to
32
33 explore what Lawrence (2019, 319) calls 'the potential of relation with materials, objects
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35 and the environment' as young children weave in and out of different kinds of interactions.
36
37 Drawing on Post-humanism's decentring of the human as the reference point for all existence
38
39 and knowledge, we recognise human interconnectedness with objects, materials, other living
40
41 creatures, plants and all forms of matter in a complex and interconnected universe. This
42
43 entanglement has generally been neglected in favour of a preoccupation with human reason
44
45 and mastery. We seek to work with the understanding that 'discursive practices are on-going
46
47 agential intra-actions of the world through which determinacy is enacted within the phenomena
48
49 produced' (Barad, 2007, 335) and that 'intelligibility is not an inherent characteristic of humans
50
51 but a feature of the world in its differential becoming' (2007, 335). In other words, what we
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53 can know and understand is a result of the entanglement of human beings with all other forms
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55 of matter and how this intra-action shapes events and behaviours. Foucault (2002a), however,
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3 shows how the discursive-material regulatory practices of the neoliberal state operate to value
4 a very narrow range of responses and place very heavy constraints upon practitioners' actions.
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6 Our interest is in whether spaces can still be found to keep possibilities and responses open.
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10 **Neoliberal caring about young children**

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13 Over the past 20 years, in the UK and internationally, there has been considerable concern
14 about early childhood experience, which has resulted in the allocation of additional public
15 funds in several countries. This reflects attention to claims from neuroscience (see, for
16 example, Shonkoff and Phillips 2000, Gopnik et al 2001), that 'impoverished' early
17 experiences cause inadequate synapse development, with lifelong consequences. Thus, for the
18 first time in the UK, guidance was commissioned to support practitioners working with
19 children from birth to three. Ian was a member of the project team that produced this guidance
20 for the Department for Education and Skills (DfES 2003). The financial crisis of 2008, and
21 the defeat of the New Labour government in the 2010 UK elections, led to austerity measures
22 under the Conservative-led coalition. Spending on provision for young children and their
23 families has been reduced considerably over the past decade. Public investment now centres
24 on those seen to be at risk because of disadvantage. While the UK focus of the paper is
25 recognised, the developments discussed have resonance across the Global North and have
26 become UNESCO and World Bank priorities for the Global South (Marope and Kaga 2015).
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46 Many in the early childhood sector welcome the government focus on young children,
47 following a century of marginalisation. *Birth to Three Matters* (DfES 2003) emphasised the
48 capabilities of young children as 'Competent Learners' and the accompanying video opened
49 with the statement 'young children are amazing'. Lewis (2018, 2) points out that whilst this
50 view of children's competence, uniqueness and rights still existed in the 2017 revision of the
51 EYFS (DfE 2017), it 'offers no exemplification of how this principle might be translated into
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3 practice'. Whilst the EYFS (DfE 2017, 5) states that 'a secure, safe and happy childhood is
4 important in its own right', children are considered primarily in terms of deficiencies in their
5 early experiences and the focus is 'school readiness' to ensure that they have 'the right
6 foundation for good future progress through school and life' (DfE 2017: 5). Drawing on Cross
7 (2011), Kingdon (2018) highlights the temporal state of 'having been' whereby 'children in
8 both their current state of being as well as their future state of becoming are influenced by what
9 has already occurred' (356). Thus, the emphasis is on whether what has already been enables
10 children to conform to what schools expect of them (they are 'school ready'), especially in
11 terms of literacy, numeracy and the ability to listen attentively. These are viewed as the basis
12 for what will come later. Thus, as Stirrup et al (2017, 357) note, 'practice emphasises a
13 performance pedagogy which allows children to demonstrate predetermined knowledge
14 and skill against explicit criteria'. Kinkead-Clark's argument (2018, 11) that 'the perception
15 that readiness only resides within children ignores the school's responsibility in this regard' is
16 one with which many in the early childhood sector would agree but it does not find much
17 support in policy documents.

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38 This investment in compensating for perceived inadequate early experiences in families
39 experiencing disadvantage reflects Heckman's human capital theory (see, for example, Garcia
40 et al 2017). The argument is that costs
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46 'will be outweighed by children's increased earnings in adulthood and the
47 contribution that they will make to the economy Therefore, effective or
48 high-quality provision is intended to provide a good return on the initial
49 financial investment and the earlier that children meet expected outcomes the
50 better' (Lewis 2018, 4).
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3 The proposed revised expectations for what children should achieve by the end of the EYFS
4 (DfE 2019) reflect downward pressure from expectations in the primary school years.
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6 Expected achievement levels in literacy and numeracy have been increased in these, the only
7
8 areas of the EYFS where significant numbers are not currently achieving expectations. Whilst
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10 Lewis (2018, 6) talks of the ‘unintended consequences’ of this focus, many would argue that
11
12 these are not unintended consequences at all but rather power operating, in Foucauldian terms
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14 (2002a), to discipline and compensate for those deemed deviant and/or inadequate (Foucault
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16 2002b).

21 22 **Methodological approach**

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25 In seeking to continue the close collaboration that had developed as part of 2-Curious, the three
26
27 authors were interested in exploring the space for sensory and haptic experience at
28
29 Martenscroft Nursery School and Children’s Centre. We were also curious about the scope for
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31 these experiences as they bumped against the kinds of regulatory tensions highlighted above.
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33 In Autumn 2017, Christina began a three-year research residence attached to Martenscroft
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35 Nursery School and Children’s Centre in order to undertake a longitudinal study of its first
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37 government-funded group of two-year-olds. Ian visited the nursery school in July 2017, at the
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39 beginning and end of the Autumn of 2018, and during Spring 2019, in order to observe the
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41 children as they interacted with practitioners and the nursery school environment. The
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43 intention was that these observations would form the basis for this paper.
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49 In writing the paper, Ian, Lisa and Christina brought different histories with them. Ian was a
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51 university head of department at the time of the project, had an existing relationship with
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53 Martenscroft before 2-Curious but took part in only a small number of the professional
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55 development sessions whilst having a significant role in writing the project papers. Lisa was
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57 the deputy and is now the head teacher at Martenscroft, attended almost all the development
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3 sessions, kept a research journal and has contributed to the writing of this and previous papers.
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5 Christina was a nursery teacher in a different part of Northern England and so did not attend
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7 the sessions but is now a Manchester Metropolitan University research fellow, employed
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9 specifically in order to carry out the longitudinal study.
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13 The paper uses the actual names of the university, academics, practitioners and the nursery
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15 school, reflecting the onto-epistemological and ethical stance that regards existence (ontology)
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17 and what we can know (epistemology) as being inseparable from the people, context and means
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19 by which we seek to determine what is happening in any given situation. Thus, the university,
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21 academics, nursery school practitioners, children and their families, and the nursery school and
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23 its location are what give meaning and shape to what we can know about the children's
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25 experiences and ways of understanding and about the practitioners' pedagogy. This stance
26
27 reflects a New Materialist position and Barad's notion (2007) of the importance of the
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29 'apparatus' and 'agential cut'. Drawing on quantum physics, Barad (2007) argues that
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31 behaviour and properties are situational rather than absolute and the result of the particular
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33 apparatus (people, other materials and objects) that shape behaviour in a particular situation.
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35 Facts, behaviours and knowledge are always fashioned by the particular 'agential cut' created
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37 by the interplay of distinct factors in specific situations. Anonymisation would be at odds with
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39 this stance. Ethically, we have, however, felt it important to anonymise the children, given that
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41 even if their parents and/or the children themselves agreed to the use of their real names in the
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43 present, publications are available for many years and the children may feel differently as
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45 adults.
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52 Feedback on previous conference and journal papers suggested that attention to children's
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54 responses was a significant omission. This is not surprising since 2-Curious had been about
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56 academics' and practitioners' responses to materials and had not involved children. This paper,
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58 however, draws on children's voices in data collected from September 2017 until July 2018.
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3 As Wall et al argue (2019, 268) ‘any definition of voice will be, by necessity, broader and more
4 inclusive of a greater range of communication strategies beyond words and cannot exclude
5 behaviour, actions, pauses in action, silences, body language, glances, movement, and artistic
6 expression’. Drawing on the Mosaic Approach (Clark 2017), we attended to visual, haptic and
7 bodily voices as well as auditory ones. This has involved careful attention to the children’s
8 gestures and physical responses as they engage with their learning environment to help us better
9 understand their preferences and ways of knowing. We focus on detailed consideration of the
10 play of one these children, Erik, with Christina, in order that we can explore this complexity in
11 depth, which would not have been possible had we included a broader range of observations.
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24 The whole notion of observation has required careful thought because of its shaping and
25 disciplinary nature. Hoskins and Smedley (2019, 84) highlight that their study of EYFS
26 practice ‘revealed discourses that had become inscribed by a performative and academic
27 agenda and culture, a context where practices are highly regulatory and where what constitutes
28 success for our settings can be viewed as driven by outcomes’. Christina pointed to similar
29 dilemmas facing practitioners at Martenscroft and noted that their practice is likely to be shaped
30 by the regulatory framework and the way in which it exercises power to determine what is
31 considered important. Thus, in discussion with Christina, Ian and Lisa came to realise that our
32 ethical care for the practitioners made it difficult to study their interactions with the children in
33 the way that we initially intended, as observation, as a material-discursive practice, would have
34 placed further pressure on them.
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50 The paper is, therefore, based primarily on an observation undertaken by Christina. As
51 researcher-in-residence with no responsibility for the children’s learning and progress towards
52 the expectations set out in the EYFS (DfE 2017), practice possibilities are open to Christina
53 that are much more difficult for the school’s practitioners to access.
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3 Discussion of the play sequence involved a three-way conversation between Ian, Lisa and
4 Christina. There is no sense of our research having been undertaken to establish truths or facts.
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6 Thus, our concern is not with triangulation in the traditional sense that looking from different
7
8 perspectives somehow allows claims to be made for the greater veracity of what happened or
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10 for a particular interpretation. Our concern is with ‘reading insights through one another in
11
12 ways that help illuminate differences as they emerge’ (Barad 2007, 30) creating thickness of
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14 understanding where seemingly contradictory elements can sit alongside each other, creating
15
16 other possibilities.
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22 The paper conceptualises the ‘agential cut’ (Barad 2007) created by the enfolding of Erik,
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24 Christina and objects and materials in the nursery environment as the onto-epistemological
25
26 basis for events and behaviours. The events and behaviours are further entangled by and with
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28 the three-way conversation between Ian, Lisa and Christina. The decision to focus on one out
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30 of the many observations and hours of video recording that Christina undertook is intended to
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32 enable detailed consideration of the immanent possibilities in every moment of Erik’s play and
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34 also of how these are shaped by material-discursive practices. It allows us to consider the
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36 decisions that practitioners address as they observe, involve themselves in, and intervene in
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38 children’s play and how this shapes possibilities and determinacies.
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Findings: listening to the voices of children

Christina's observation is presented in three parts to enable the reader to more readily recall it in reading the discussion.

Observation Part A

Erik is playing with the water – filling scoops and throwing them across the water tray – when I join him by sitting nearby on my knees, he throws a scoop in my direction and my trousers get wet – I show him my wet trousers and ask him to be careful as I don't want to get wet, but a few moments later I am soaked again, this time by a small plastic bucket. Erik is beaming, and I explain again that I don't like getting wet.

Ian, Lisa and Christina in Discussion (Part A)

Christina noted that although she was interested in what the water afforded Erik, she did not enjoy getting wet and so her initial concern was simply to make him stop splashing her, demonstrating the way in which the human, sensory and material (in this case liquid) bump against each other and determine what is enacted. She felt that her former practitioner identity may also have been in play, with her knowledge of the EYFS's expectation that children show sensitivity to others' needs and feelings, form positive relationships with adults, know that some behaviour is unacceptable and follow instructions. Erik did not stop splashing Christina, however, and she notes that he was beaming. Perhaps his enjoyment of the sensory experience of being wet means that he is so engrossed that this dominates any concern for Christina as another human being. Perhaps he also likes having Christina there with him and so throws the scoop as a way, misguided from Christina's perspective, of keeping her there. Christina thought she had interpreted the beam not as uncaring delight in her getting wet but as enjoyment of her reaction. It might also be that he was testing Christina's reactions, perhaps checking whether, if he kept splashing her, he would get the same response or whether she would come around to

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3 his way of thinking. Questioning motivation in this way perhaps reflects a tendency to assume
4 that behaviours are necessarily based in thought but it also opens up the possibility that several
5 things might have been at play (Deleuze and Guattari's 'and ... and then,' 1983, 5) in the
6 entanglement with objects, sensations and human beings. It also allows consideration of the
7 complexities of engaging with different aspects of the voices of very young children and the
8 decisions faced by practitioners in determining their responses.
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17 *Observation Part B*

20 I have noticed he has started to look at the water coming through the hole at
21 the bottom of a bucket and I start to put my finger in the wooden hole in the
22 shelf across the water tray. He looks interested in my actions, so I start to
23 pour water out of the bucket through the hole in the buckets and aim it so
24 the water runs through the hole in the shelf. Erik is very engaged – laughing
25 as I pour and, if I do not repeat, he vocalises loudly until I respond.
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35 *Ian, Lisa and Christina in Discussion (Part B)*

38 Our attention then focused on the point where Christina noticed that he lifted the bucket up and
39 her extemporised response. Christina thought he became interested in where the water was
40 coming out and, at this point, he paused, gazing at the hole. She noted that she may have felt
41 some of the responsibility that a practitioner might feel for trying to make his play 'more
42 purposeful' (by focusing on the flow of water through holes) and for attending to the EYFS'
43 concern (DfE 2017) for ideas such as position, solving problems, exploring the characteristics
44 of everyday objects. This interaction of researcher–practitioner in her identity illustrates the
45 challenges of how to approach development work with practitioners, who would be likely to
46 be even more affected by regulatory requirements.
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3 Christina thought it more likely, however, that the hole became a way to improvise, a point of
4 playful connection, of tentative opening of immanent possibilities. She responds to his
5 perceived interest through actions rather than words, reflecting how her interactional style had
6 changed over the past year as she had gained more experience of working with two-year-olds.
7 She felt that consciously and unconsciously, she had become experimental, changing from
8 more observational and linguistic approaches, to ones where she tried not to use words where
9 language was not children's dominant form of communication.

10
11 Erik's laughter is a significant voice to hear in response to Christina's actions. Christina's
12 actions and Erik's laughter at the flow of water through the hole affirmed a connection between
13 them that did not require words, but which was based in communicative playfulness, leaving a
14 space open for immanent possibilities. All three of us sensed that actions, laughter and
15 vocalisation were significant voices for Erik, used to bind him together with Christina and the
16 materials, and to elicit repetition and enjoyment.

33 34 *Observation Part C*

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37 To experiment, I throw a stone from the nearby display in the bucket and then
38 rotate the bucket in my hand so that the stone whizzes round the rim and
39 Erik is engaged and then pulls the stone out and offers it back to me. We play
40 like this for a while with the stone going back and forth between us and also
41 being shaken inside the bucket and making an interesting sound.

42 43 44 45 46 47 48 49 *Ian, Lisa and Christina in Discussion (Part C)*

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52 We were all intrigued by the point where the focus became the stone whizzing round the bucket.
53 Christina seeks 'to experiment' in the observation, clarifying that what she meant was trying
54 to develop a more improvisatory practice. We discussed Christina's repeated attempts to feed
55 his interest through actions, rather than words and how action seemed to be critical to his
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3 engagement. Christina noted how she read Erik's offering of the stone as a communicative act,
4 one of his voices, suggesting interest in the stone as object but an interest that, through the act,
5 he was sharing with another human being. Therefore, she felt a need to reciprocate and sustain
6 it. Offering the stone suggests a generosity and a sharing and delighting in Christina's actions
7 and the movement of the objects and materials as a shared endeavour. It seems to be less that
8 he thinks he cannot do it himself and more that he is revelling in what he is watching and so
9 does not want it to stop. Erik returning the stone to Christina suggests a sort of care and support,
10 possibly in response to what she is doing for him. Perhaps there is a sense of mattering to each
11 other, of care as a 'speculative ... intervention in what things could be' (Bellacasa 2017, 66)
12 as important aspects of what opens possibilities and sustains the play.
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15 We noted that Erik seems largely to be watching whilst play is usually considered to involve
16 action. Perhaps what he is finding so enjoyable is watching the movement and action as a
17 shared endeavour with Christina. Lisa identified a sense of him directing what is happening
18 without being involved in the doing. In this sense, he is leading the play and the sound of the
19 stone whizzing round the bucket has become something that he laughs at or responds to in
20 some way. Whilst adult interactions with children very often cut short what matters to the
21 children, Christina and Erik engage in play that seems to involve 'holding open the possibility
22 that surprises are in store, that something *interesting* is about to happen.... and ... changes
23 everybody in unforeseeable ways'. (Haraway 2016, 127). Seeking to explore possibilities in
24 this way 'demands the ability to cultivate the wild virtue of curiosity, to retune one's ability
25 to sense and respond' (Haraway 2016, 127).
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28 **Caring about young children in a post human world**

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Christina's interactions with Erik strike us as grapplings with what it means to listen to
children's voices and become entangled with children in their Posthuman becomings. Whilst

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3 acknowledging the devaluing of young children inherent in neoliberalist agendas and how they
4 conceive of becoming (see, for example, Hayes and Filipović 2018), we wish to rehabilitate
5 the notion of ‘becoming’ in early childhood. For us, what children possess now in the present,
6 in their *being*, involves their potential for the future, for what they will *become*. It involves ‘*a*
7 *dynamic intra-active becoming that is implicated and enfolded in its iterative becoming*’ (Barad
8 2007, 151, original italics). The inter-relationship is one of ‘becoming-with, not becoming ...
9 Ontologically, heterogeneous partners become who and what they are in relational material-
10 semiotic worlding’ (Haraway, 2016, 12-13). Thus, both Erik and Christina are enfolded in the
11 becoming.

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14 Being and becoming are not different states and not separated in time. There is no ‘moving
15 beyond, no leaving the ‘old’ behind. There is no absolute boundary between here-now and
16 there-then’ (Barad 2014, 168). Whilst becoming is anticipatory, it is concerned with possibility
17 rather than predetermined notions of what must come later. It does its work in the present and
18 connects with the past, ‘activating powerful motivating forces’ (Braidotti 2011, 90) that create
19 possibilities. Massumi (1992, 102) offers the optimism that ‘becoming is an escape ... the
20 body-in-becoming does not simply react to a set of constraints. Instead, it develops a new
21 sensitivity to them, one subtle enough to convert them into opportunities.’ It is this notion of
22 becoming we see as at the very heart of an optimistic and immanent encounter between children,
23 materials, objects and practitioners in entangled practices (what Barad, 2007, calls ‘intra-
24 action’) of making meaning together and with the environment in which they find themselves.
25 Following Braidotti (2002,18), the immanent encounter is ‘a founding, primary, vital,
26 necessary, and therefore original desire to become’. Rather than being wholly concerned with
27 the development of human capital, becoming gives rise to creative possibilities that are
28 concerned with more than economic, political, social and economic productivity in service of
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3 a neoliberal state, making space for the prospect of a richer and more ethical life for both
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5 children and practitioners.
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8 **Discussion: thinking together**

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11 In thinking together, we value the ways in which our different positions combine, overlap and
12
13 bump against each other, thereby shaping and bending what emerges. Barad (2007) refers to
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15 this process as diffraction, drawing on the behaviour of waves when they meet an obstacle.
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17 Lisa is a head teacher and practitioner, which necessarily gives meaning to how she perceives
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19 the practice and learning for which she is accountable, but she was not necessarily present at
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21 the time of the observation. Christina had until recently been a practitioner but her new position
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23 as researcher-in-residence could be seen as giving her the most direct access to the events and
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25 their meanings. This, however, would suggest that the observational material can capture some
26
27 form of objective truth about ‘what happened’, when we understand this as being created
28
29 between everyone and everything entangled in the play. However, we are working with notions
30
31 of the past as ‘always open’ (Barad 2014, 181) as understandings about it are the result of the
32
33 agential cut (Barad, 2007), the means by which it is perceived. In carrying out the observation,
34
35 the agential cut is fashioned by Christina from what happened in her entanglement with the
36
37 children and the nursery school environment, the objects and materials, and the practitioners
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39 but its meanings remain open (Barad 2014) and are further shaped by the discussions between
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41 Ian, Lisa and Christina.
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49 Ian’s hegemonic position, as male, white, the lead author and the most senior academically, is
50
51 potentially exploitative whilst also providing little access to the oppressed/‘minoritarian’
52
53 (Deleuze and Guattari 2004) experiences of the children. Ian was, however, for many years,
54
55 an early childhood teacher, a field in which men are the minority. This, perhaps, has provided
56
57 him with some experience of, or requirement to, engage with what it means to be part of a
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3 minority group. Whilst he feels himself committed to a process ‘that rends him from his major
4
5 identity’ (Deleuze and Guattari 2004, 321), depressingly, Braidotti (2011) asks
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8 ‘I wonder what it is that makes them want to embark on this sudden
9
10 programme of dephallicization ... what do these new male hysterics want.
11
12
13 I see nothing more in this manoeuvre .. (than)... a desire to carry on the
14
15 hegemonic tradition’ (268-269).
16
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18 If Ian’s commitment to understanding the perspective of others is considered a cynical
19
20 manoeuvre, it is at least part of a thinking-with Lisa and Christina about the material, relational
21
22 and intra-active entanglement of Christina, Erik, materials, objects and discourses. Thus,
23
24 thinking-with is seen as making ‘the work of thought stronger, it supports its singularity and
25
26 its contagion ... It builds relation and community, that is, ‘possibility’” (Bellacasa 2012, 203).
27
28 Thus, the diffractions involved are viewed as generative and offering a thickness of
29
30 understanding of Erik’s voices and Christina’s responses. The three perspectives are entangled
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32 in a textured and viscous ‘thinking with’ and ‘thinking together’ about the children’s beings
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34 and becomings in interaction with objects, materials and Christina.
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39 **Reviewing the possibilities, constraints and dilemmas of post-humanist becoming**

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42 So, reflecting on the observation and our discussion, what of our interest in how 2-Curious has
43
44 entwined itself in the spaces and practices of the nursery school and the learning, development,
45
46 being and becoming of two-year-olds? Where has our interest taken us and what have we learnt
47
48 as we have sought to research these concerns? A significant issue to emerge has been the need
49
50 for a major shift in research practices. Barad highlights ‘to the degree that ... observational
51
52 inventions have a role to play, they do so as part of the material configuration of the world
53
54 in its intra-active becoming’ (2007, 341). Christina has come to struggle with the whole notion
55
56 of observation on a number of counts, including the way in which it is a material–discursive
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3 practice that shapes and disciplines what is seen as mattering. The concern has a further
4 philosophical aspect, regarding the idea of trying to put into words what you did and why you
5 did it. She felt that at each moment so much might be happening, and this is totally impossible
6 to capture. She also felt that words were simply inadequate as they bring a fixity, which makes
7 the whole event seem teleological, as though things were always going to unfold that way. This
8 rather disregards affective and haptic aspects of practice and rather supposes that the world is
9 a logical place. Observation, like scientific rationalism, loses the sense that 'each moment is
10 alive with different possibilities for the world's becoming and different re-configurings of what
11 may yet be possible' (Barad 2007, 182).
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24 The second concern about observation was more ethical in nature. We came to realise that our
25 ethical care for the practitioners made it difficult to study the interactions of children,
26 practitioners and the nursery school environment in the way that we initially intended. What
27 we did find, however, was that Christina's role as researcher-practitioner, rather than that of
28 teacher, subject to accountability measures for the children's progress and development,
29 offered a means to create a more experimental space to explore possibilities for learning and
30 pedagogy beyond the preoccupations of the EYFS (DfE 2017). Christina's different positioning
31 has allowed us to explore 'the emergent, the creative, the intra-active encounters (children)
32 engage in as they do the ongoing work of bringing themselves and their community into being'
33 (Davies, 2014, 15). What it has not necessarily done, however, is to enable us to consider how
34 this plays out for practitioners at Martenscroft Nursery School and Children's Centre, as we
35 originally intended, though we do get some indications because of Christina's practitioner-
36 researcher identity. We intend to explore this further in professional development work with
37 practitioners. We need to think about how we do this in ways that are in keeping with our Post-
38 humanist framework.
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3 And what of our interest in Will's contention in Middlemarch that 'discernment is but a hand
4 playing with finely ordered variety on the chords of emotion - .. knowledge
5 passes instantaneously into feeling, and feeling flashes back as a new organ of
6 knowledge' (Eliot 1871-2/1994, 209). This understanding of discernment seemed to be at
7 the heart of Erik's haptic, sensory, communicative and relational encounters and
8 entanglements with objects, materials and Christina in a process of becoming, even if the
9 form that it took was more dance than music. tioners, children, the nursery school
10 environment and the objects and materials in it. These are important and complex
11 matters for practitioners to explore, as they point to the possibility of something more
12 optimistic than preparing children as future human capital. As Braidotti (2013, 93) argues
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54 need to become the sorts of subjects who actively desire mutant values and to draw our
55 pleasure from that, not from the perpetuation of familiar regimes?. These are not matters,
56 however, that feature in any readily identifiable way in the English EYFS (DfE 2017).
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3 Nonetheless, despite the challenges it brings, Lisa is particularly drawn and committed to
4 Braidotti's proposal (2002, 262) 'that we do not rush forward to hasty resolutions of
5 complexities we hardly can account for. Let us instead linger a little longer within complexities
6 and paradoxes, resisting the fear of immanent catastrophe'. She cannot, however, readily
7 escape the requirement to ensure success in terms of what matters to neoliberalism.
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15 Whilst finalising this paper, Ian presented a version of it to colleagues at his own institution.
16 One colleague suggested practitioners should refuse to negotiate with the requirements of
17 regulatory frameworks and agencies where they believe it is not in the best interests of children
18 and where it is the requirements that need to change. In a similar vein, Arndt and Tesar (2016,
19 22) highlight Havel's argument that 'when human subjects support .. the governing
20 ideology, their actions become part of the actants that shape the structures which constitute the
21 system' and no doubt also perpetuate rather than change it. Christina commented that she felt
22 that refusal is extremely difficult for a state-maintained nursery school since state provision, as
23 non-statutory, is continually under existential threat and government (Ofsted) inspection
24 outcomes are often seen as mattering to their survival. Indeed Robson and Martin (2019, 95)
25 note 'the tension between advocating for the interests of children and families and navigating
26 an environment of marketisation of the ECE sector and corporatisation of ECE provision'.
27 There is also the ethical concern about what would happen to the children if a particular setting
28 dispensed with the statutory requirements.
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48 As researchers, all too often we offer challenges to practitioners that demonstrate an
49 insufficient ethic of care towards those carrying so much responsibility. Negotiating these
50 intricacies may result in 'affective and material burnout' (Bellacasa 2017, 163). A path must
51 be woven that 'involves complex and continuous negotiations with dominant forms and values
52 and hence also multiple forms of accountability' (Braidotti 2013, 35). Casting a long shadow
53 over the very real desire to attend 'to a ray of light on water, for example, a tree glowing green
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3 in the late afternoon light, a breeze, the sound of laughter' (Davies, 2014,10), is an
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5 accountability culture whose agential cuts 'account' primarily for cognitive and scientific ways
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7 of understanding and, in the measuring, makes these what matter. As Haraway (2016, 12) says
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9 'it matters what matters we use to think other matters with; it matters what stories we tell to
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11 tell other stories with; it matters what knots knot knots, what thoughts think thoughts, what
12
13 descriptions describe descriptions, what ties tie ties'. It matters what we decide matters.
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17 Lisa feels very keenly that it matters to the parents and staff that the school retains an Ofsted
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19 outstanding rating as this agential cut determines how the progress and achievement of the
20
21 children are judged and what future possibilities are available to them. Indeed, Neaum (2016,
22
23 243) highlights that 'the significance of Ofsted's assessment of school readiness cannot be
24
25 underestimated. Its uniquely powerful position to influence policy, and enforce change through
26
27 regimes of inspection, places them at the centre of the creation and maintenance of the
28
29 dominant discourse'. At the same time, following Press et al (2018, 377), Lisa is concerned to
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31 'situate ECEC within the context of a society that it is worth living in, to move beyond the
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33 atomisation and individualisation of benefit, success and achievement'.
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39 Venturing beyond what is measured as mattering requires the ability to read through each other
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41 these different perspectives on what matters in becoming and to withstand the dissonance.
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43 Thus, alongside Lisa's responsibility for the children's success in terms of the EYFS (DfE
44
45 2017), she is also committed to providing a space in which alternative material-discursive
46
47 practices form other and more ethical versions of reality; ones that ensure that the children are
48
49 able to hear 'the grass grow and the squirrel's heart beat' and to 'hear the roar which lies on
50
51 the other side of silence' (Eliot 1871-2/1994, 226). These commitments are also apparent in
52
53 Christina's interactions with Erik. Lisa hopes to ensure that the aspects of learning that policy
54
55 does not privilege as mattering are not neglected in practice, as to do so would be detrimental
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57 to the children who matter to her and would foreclose possibilities for them. It is a form of
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3 'dissenting within' as a means of 'thinking with care' (Bellacasa 2012, 207). It is the difficult
4
5 diffractive path to finding ways of enabling the children and staff to be successful in relation
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7 to the various formal measures whilst working the spaces of entanglement in the creative
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9 immanence of the other matterings that offer something more optimistic for children than the
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11 seductive ensnarement of neoliberalism's preoccupation with children only as human
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13 economic capital.
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