Journal of Childhood Studies



Childhoods and Time: A Collective Exploration

Camila da Rosa Ribeiro, Zsuzsa Millei, Riikka Hohti, Walter Omar Kohan, César Donizetti Pereira Leite, Norma Rudolph, Ingvild Kvale Sørenssen, Karolina Szymborska, Tuure Tammi et Marek Tesar

Volume 48, numéro 1, janvier 2023

Time Special Issue

URI: https://id.erudit.org/iderudit/1097289ar DOI: https://doi.org/10.18357/jcs202320719

Aller au sommaire du numéro

Éditeur(s)

Canadian Association for Young Children

ISSN

2371-4107 (imprimé) 2371-4115 (numérique)

Découvrir la revue

Citer cet article

da Rosa Ribeiro, C., Millei, Z., Hohti, R., Kohan, W., Leite, C., Rudolph, N., Kvale Sørenssen, I., Szymborska, K., Tammi, T. & Tesar, M. (2023). Childhoods and Time: A Collective Exploration. *Journal of Childhood Studies*, 48(1), 133–147. https://doi.org/10.18357/jcs202320719

Résumé de l'article

This collective piece explores the philosophical, ontological, and epistemic potentials of analyzing the relations between childhood and time, proposing thought experiments and fieldwork analyses that release childhood from a linear temporality toward (modern) adulthood. Each experiment originating from the authors' distinct scholarly positionings fractures "modern childhood" and its civilization project, built from the hegemony of linear, sequential, progressive, and principled time.

Copyright © Camila da Rosa Ribeiro, Zsuzsa Millei, Riikka Hohti, Walter Omar Kohan, César Donizetti Pereira Leite, Norma Rudolph, Ingvild Kvale Sørenssen, Karolina Szymborska, Tuure Tammi, Marek Tesar, 2023



érudit

Ce document est protégé par la loi sur le droit d'auteur. L'utilisation des services d'Érudit (y compris la reproduction) est assujettie à sa politique d'utilisation que vous pouvez consulter en ligne.

https://apropos.erudit.org/fr/usagers/politique-dutilisation/

Cet article est diffusé et préservé par Érudit.

Érudit est un consortium interuniversitaire sans but lucratif composé de l'Université de Montréal, l'Université Laval et l'Université du Québec à Montréal. Il a pour mission la promotion et la valorisation de la recherche.

https://www.erudit.org/fr/

Childhoods and Time: A Collective Exploration

Camila da Rosa Ribeiro, Zsuzsa Millei, Riikka Hohti, Walter Omar Kohan, César Donizetti Pereira Leite, Norma Rudolph, Ingvild Kvale Sørenssen, Karolina Szymborska, Tuure Tammi, and Marek Tesar

Camila Rosa Ribeiro is a doctoral researcher at Tampere University, Finland, and a practicing performance artist. Her research explores the intersections between art practice and philosophy, focusing on devising performativity through collective practices of memory storying. She focuses on processual intensities and irregular movements of time and how they oppose the modern colonialist logic that constructs and activates raciality and violence. Her research lies at the intersections of performance studies, education, and memory studies. Email: camila.darosaribeiro@tuni.fi

Zsuzsa Millei is a professor in the Faculty of Education and Culture, Tampere University, Finland, and in the Department of Education, Communication, and Learning, University of Gothenburg, Sweden. Her interdisciplinary research explores child politics in its broadest sense under three areas: everyday nationalism and childhood; socialism and childhood; and biopolitics of childhood. Email: zsuzsa.millei@tuni.fi

Riikka Hohti is a postdoctoral researcher at the Helsinki Institute of Sustainability Science, where she studies child-animal relations and more-than-human education. Her research is situated at the intersections of childhood studies, human-animal studies, and education, and she has published on multispecies care relations, digitality, temporality, and the Anthropocene. She is a docent in the field of childhood studies in the University of Tampere. Email: riikka.hohti@helsinki.fi

Walter Omar Kohan is a professor of philosophy of education at the State University of Rio de Janeiro, Brazil. He is also a researcher at the National Council for Scientific and Technological Development and the Carlos Chagas Filho Research Support Foundation. He was previously president of the International Council of Philosophical Inquiry with Children and has been coeditor of the journal *Childhood & Philosophy*. His research focuses, theoretically and practically, on the relationships among childhood, education, and philosophy. Email: wokohan@gmail.com

César Donizetti Pereira Leite is an associate professor of psychology and education in the Department of Education at Paulista State University in São Paulo – Brazil. He is experienced in the field of psychology, with an emphasis on developmental and educational psychology, working mainly on the following topics: education, childhood, experience, language and teaching and learning, image production and cinema. Email: cesar.leite@unesp.br

Norma Rudolph is a postdoctoral researcher at Tampere University. Her research interests include post-Apartheid South African policy for young children, autoethnography, and decolonial theories and praxis. Her most recent publications are "Revealing Colonial Power Relations in Early Childhood Policy Making: An Autoethnographic Story on Selective Evidence" (2021); "Equitable Recovery from COVID-19: Bring Global Commitments to Community Level" (2021); and "Corrigendum: Data Practices and Inequality in South African Early Childhood Development Policy: Technocratic Management Versus Social Transformation" (2019). Email: norma.rudolph@tuni.fi

Ingvild Kvale Sørenssen is an associate professor in the Department of Education and Lifelong Learning at the Norwegian University of Science and Technology. As a childhood studies, media studies, and education scholar, her research interests revolve around children's age identity, socialization, and meaning making in the interplay of popular culture, friendships, and family life. Her theoretical focus is on the relationality of human and nonhuman actors in different sociomaterial assemblages. Email: ingvild. sorenssen@ntnu.no

Karolina Szymborska is affiliated with the University of Białystok, Poland, in the Department of 19th-Century Literature and Regional Cultures. Her research evolves around children's archetypes in literature, particularly on topics related to child mortality and immortality. Email: karolinaszymborska@yahoo.co.uk

Tuure Tammi is a postdoctoral researcher at the University of Oulu, Finland, in the Faculty of Education. His research transverses environmental education, child-animal relations, and multispecies citizenship. Email: tuure.tammi@oulu.fi

Marek Tesar heads the School of Learning Development and Professional Practice and is Associate Dean International in the Faculty of Education and Social Work, University of Auckland, New Zealand. He is also the director of the Centre for Global Childhoods. His award-winning scholarship is focused on early childhood education in both New Zealand and cross-country contexts. His academic work and consultancy focus on educational policy, philosophy, pedagogy, methodology, and curriculum and draws on his background as a qualified teacher. Marek's scholarship and activism merges theoretical work with a practical focus on the everyday lives of children and their childhoods in Aotearoa New Zealand and overseas. Email: m.tesar@auckland.ac.nz

This collective piece explores the philosophical, ontological, and epistemic potentials of analyzing the relations between childhood and time, proposing thought experiments and fieldwork analyses that release childhood from a linear temporality toward (modern) adulthood. Each experiment originating from the authors' distinct scholarly positionings fractures "modern childhood" and its civilization project, built from the hegemony of linear, sequential, progressive, and principled time.

Key words: modern childhood; time; non-linear time; temporality

Prologue: Childhoods and time

Marek Tesar

When thinking about childhoods and time (in their broadest sense), notions of time and temporalities may lead toward historical narratives about how childhoods have changed. One may consider the future of childhoods, including the most preferred or probable futures. Furthermore, one may drift toward philosophical narratives which can present different ontological, epistemological, and axiological positionings toward childhoods. In my earlier explorations, I used philosophy as method developed with colleagues from the global South and North to experiment with Western and non-Western philosophy in theorizing childhood. Some of the most intriguing notions, however, are

the explorations that are grounded in the question "What is the relationship between childhoods and time?" In collectively exploring this question, we linked the idea of childhood with educational spaces and places, such as early years classrooms, and associated curricula or pedagogies. In this prologue, I move toward a different line of thinking formed through prior collective writings regarding who is a child and what is childhood and how we research these concepts (Tesar et al., 2021). By looking at a much broader foundation of the formation of childhood and its relation to time, this new thinking allows the concept of childhood to be liberated from the classroom, and its pedagogical or curricular disciplinary powers.

This experiment should not be taken for granted. The idea of taking a broader, relational, worldly—if not planetary—outlook has of course been debated for some time. I am keen on Walter Benjamin's (1999) approach where he discusses the histories of "time." He argues how in the past various festivities, rituals, and ceremonies enabled humans (including children) to connect past times with the times in the present. This connection had implications for how childhoods were formed and how children experienced their childhoods. By today we have mastered a different sensibility; we count hours and days, mornings and afternoons, holidays and festivities; children experience time and the concept of waiting differently. Children wear watches, calendars determine what activities are encouraged, and age dictates when certain activities are appropriate. The powers of time and the calendar in childhood are invisible and, at the same time, very visible, simultaneously discursive and material. Time is not just a concept but is activated in policies measuring childhoods according to years. Or we can just look at children's clothing and consider whether the child is dressed "on time," "in time," or "for the time," or is completely "out of time."

Posthuman childhood studies are useful to consider when exploring questions of childhoods and time (Malone et al., 2020), and new materialist theories have recently become a productive space and testing ground for thinking childhoods (Diaz-Diaz & Semenec, 2020). Time, together with concepts of being, becoming, and agency, have become important to explore children and childhoods at both local and global levels and especially in relation to changing climate and global discourses. These explorations are not always about the genealogies of these concepts (or time), but they are often about the performance of these concepts in our everyday life. Posthuman and new materialist studies of childhoods acknowledge that childhoods are shaped by how children spend time both inside

and outside of the structured educational, pedagogical, and curricular environments. These studies identify how children resist structured time in how they live their childhoods inside and outside of these environments (e.g., Murris & Kohan, 2021; Pacini-Ketchabaw & Kummen, 2016; Tesar et al., 2016). The shift toward posthuman and new materialist readings of childhoods and time continues to challenge existing *time-tested* theories and concepts that have for such a long time determined and governed our understanding and construction of childhood.

These new approaches to reading childhoods and time from decolonial, posthuman, and new materialist perspectives have expanded both the philosophical and scholarly disciplines with a clear impact on the experiences of childhood. The traditions of many Eurocentric theories have not addressed the diversity of children's lives in the majority world (the global South). These theories have also not addressed the time that children utilize to live their childhoods. These "times" are diverse, interfacing with various artifacts, toys, homes, landscapes, animals, and foods. The human/nonhuman relations open and produce new conceptual spaces that cater for children's timely and contemporary experiences. This provokes thinking about childhood and time beyond language, discourse, and culture to reconsider the affective nature and influences of matter and materialities in children's lives and reduce the discursive power of language.

Introduction: Releasing childhood from temporal linearity

Camila da Rosa Ribeiro and Zsuzsa Millei

Clock time, calendar time, schedules, routines, habits, and celebrations underpinned by linear time, rhythms, and temporal patterns matter the social and material environments of childhoods, discourses of childhood, and children's feeling of belonging today (e.g., Hanson, 2017; Millei, 2021; Murris & Kohan, 2021; Pacini-Ketchabaw & Kummen, 2016; Tesar et al., 2016). Time also bestows ideals and norms of childhood, such as hurried childhood or standard development. Time separates children from adults as a social category. Patterned linear time played a major role in creating the ideal of modern childhood. "Modern childhood" extends over adolescence, designates places for children in the home and school, and understands growing up in time sequences. The model of modern childhood was in place by the end of the 19th century in the lives of North America and Western Europe's bourgeoisie. Reformers and policy makers have used and still rely on this model today in their civilizing efforts, for example, in anti-slavery and enforced civilization and assimilation projects worldwide (Marten, 2018, p. 137).

Would time, if differently construed, open possibilities for fracturing modern childhood and its civilization project, built from the hegemony of linear, sequential, progressive, and principled time? We have invited participants of the "Childhood and Time" Conference (May 10–12, 2021, Tampere, Finland) to help us respond to this question. Authors came from multiple disciplinary fields, such as philosophy, childhood studies, early childhood education, education, and literature. They seek to challenge, on the one hand, the figure of the unitary modern child adorned with standardized development, an ideal that colonizes childhood by pathologizing, moralizing, and "rescuing" the children who exist outside the humanitarian purview of the West (Ibrahim, 2021). On the other hand, contributions interrupt some of the mechanisms that create the "modern child" as less-than adult who is on his way to a future built on the ideal of liberal progress (Burman, 2020; Millei, 2021).

This collaborative text operates as a springboard to decompose or release child/childhood from temporal linearity. We engage in this task with a postqualitative approach, as authors experiment with "provocations that come from everywhere in the inquiry": from reading, from research, and from life (St. Pierre, 2018, p. 603). By listing these responses, we invite the readers into a collective thought experiment to release categories, norms, and commonsense idea(l)s that bind child and childhood in the sequential timeline of liberal personhood.

Aion, chronos, and kairos: Time, childhood, and education

Walter Omar Kohan

My thought experiment starts from a vision of building an errant and philosophical pedagogy in response to the question inspired in both poststructuralist and Latin American intellectual traditions. From this view, childhood is time, and we relate to childhood as we relate to time. Usually, adults allocate their childhood to their past assuming a chronological notion of time. As Aristotle shows in his *Physics, chronos* has only two parts, past and future, being present just a limit, an instant, a now. There is no substantial present in chronos, as it is the number of movements. So that when chronos governs the descriptions of human life, it is presupposed that life is several continuous, consecutive, and irreversible movements and childhood needs to be abandoned to enter the other stages of life: There is no way to stay in childhood if we want to turn ourselves adults. According to this logic, every movement affects the following: This is probably why education has been so often considered a preparation for the future. In this framework, education fills under the logic of cause-effect and means-ends: every educational action is explained by another and expected to fill an aim outside itself; thus, in neoliberal societies educational institutionalized time needs to show its productivity, impact, and good consequences. Time in educational institutions cannot be lost and needs to be spent efficiently. Nevertheless, the etymology of the word school points to a different, almost opposed, notion of time. Precisely, the Greek word scholé means free time, leisure. Pedagogists in the 19th century, like Venezuelan Simón Rodríguez, and contemporary scholars Jan Masschelein and Maarein Simons (2013) have shown elsewhere that the origin of the Greek school is not related to a place to learn (we do not need a school to learn) but to an arrangement, a form where we can "lose time"—that is, conditions need to be created so that a "nonproductive time" can be experienced to think, study, read, write, and put the world into question.

In Ancient Greek there are at least two other words for time (*kairos*, meaning opportunity, and *aion*, duration). The Greek understanding of school is less connected with chronos and more with aion, a word which Heraclitus related to childhood in his iconic fragment 52: "Time (aion) is a child playing: a realm of a child." In fact, more literally, the fragment might be translated as "aion is a child childing," being that the words for child and playing are the same word (*pais*, *paizon*) in the form of a noun and a verb respectively. Aion is time not as quantity of movement but as intensity of experience. As such, aion is mostly present, a durative sense of present. In aion, where a child governs, according to Heraclitus, time does not pass but stays. On the contrary, in modern school where chronos governs, we form children to be the desired adults of the future. But when aion enters the educational space, we need to be attentive to what governs in aion: a child. We need to experience the time of a child childing (playing): be present in the present.

What time does govern our educational relationships at school? The realm of what time is school? The preceding paragraphs make us think that if it is the realm of chronos then school might not be able to be a school in the sense of offering the unproductive and free time needed to read and question the world as well as to dream with other worlds. Giving some attention to aion and kairos might also inspire a reconsideration of the ways educators consider, experience, and relate to childhood.

Since Heraclitus, thinkers of different cultures and times have suggested that childhood is more a time than an age, closer to aion than to chronos. In that case, the education of childhood (aged children) calls for a childhood (childlike time) of education: an aionic time that educators need to keep alive in themselves to educate people of all ages. Among them, Paulo Freire, the Brazilian educator, calls our attention especially because he was focused less on the education of (chronological) children than that of (chronological) adults. Nevertheless, his commitment to (aionic) childhood is remarkable. Among many other awards, Paulo Freire was honoured as a "permanent child" by the communal library of Ponsacco, Pisa, Italy, when he was 68 years old. As he aged, he remained in the time of

curiosity, surprise, and enchantment, and he considered that keeping alive the child we are and the child we haven't been able to become is a necessary condition for educators of people of all ages (Freire & Faundez, 1989; Kohan, 2021). This formulation is challenging and instigating. It seems to suggest that childhood is something that goes far beyond a biography and that there are many chronological children with no experience of childhood. Maybe this is why Freire dedicated himself to adult education: because in illiterate adults, the robbing of their time of childhood is more dramatic and greater. Therefore, as paradoxical as it might sound, it can be argued that Paulo Freire dedicated his life and thinking to adult education because of his commitment to childhood, understood as "when it is never too late" (Couto, 2011).

The pedagogical and philosophical implications of this connection between childhood and time are diverse and promising, and we can only suggest them here. If being an educator has to do with experiencing and offering some time, the time of childhood experienced and offered by an educator is also a time of curiosity, art, love, and revolution, and the education of childhood calls to a childlike pedagogy of the question (Freire & Faundez, 1989; Kohan 2021)—which is not a method but inspires a loving, artistic, and revolutionary educational life.

Actor-network theory in exploring childhood and time

Ingvild Kvale Sørenssen

My thinking orients from childhood studies inspired by science and technology studies in an attempt to open up the field by decentering the child and exploring the world through a relational ontological lens to avoid essentializing humans and nonhumans. Within the social studies of children and childhood, the notions of being and becoming were intrinsic (Uprichard, 2008). The goal was to move from focusing on the future of children, where the "becoming child" implicitly bore with it a linear temporality and progression (Millei, 2021), to a focus on the here and now of children, the "being child" (Qvortrup, 2009). Uprichard (2008) explores being and becoming as two manifestations of time: In the being child, time can be seen as external, and in the becoming child, time is an ontological property of the individual. However, rather than moving beyond the binary while still categorizing and differentiating between being and becoming and between time as internal and as external, if we stay with the binary, with the being and becoming, we can explore time as multiple and complex. This both disrupts the notion of time as singular and gives possible new insights and understanding of how childhood and time are constructed. We can explore how children and time, as the time of childhood and time in childhood (James & Prout, 2015), are mutually enacted depending on, among other things, materialities used to do childhood with and social norms regarding age performances. By employing a sociomaterial perspective, specifically, actor-network theory (ANT), we can explore age and time in childhood by including nonhumans as actors and considering how these can take part in, facilitate, and restrict the multiplicity of doing age, thus disrupting the notion of time as singular. By staying with ambivalence and complexity, we can avoid reducing children and time into presupposed a priori understandings of what childhood and time are, and rather embrace an open-ended relational understanding of how both unfold empirically.

Age has been argued to be a social category, albeit not a stable category, and age can be understood as the social practice of doing age (Frønes, 1995). To do age is to perform age in relation to normative cultural understandings of acceptable behaviour or acceptable activities for certain age groups. Within the notion of doing age, age is implicitly detached from time in the sense that it is a social performance that can vary according to the assemblages within which it is enacted. There are limits and restrictions to one's age performance in given situations, and certain expectations of what children should be able to do and how they should behave according to different age norms. Age is not merely biological; therefore, it is not a manifestation of time. Rather, age is done in heterogeneous

networks by individuals and in relation to other actors, both human and nonhuman, in varying social contexts. This doing of age facilitates operating with multiple age performances in different contexts.

Drawing on ANT and an open-ended relational perspective, we can perceive doing age as flexible, negotiable, and continuously constructed and reconstructed. Or, in the language of ANT, assembled and reassembled. Within an ANT framework, first, nonhumans are understood as actors, meaning that nonhumans have an impact on what is and can be done (Latour, 2005). Second, these actors are in relational symmetry with other actors (humans and nonhumans), discarding any presupposed a priori understandings of nonhuman or human actors. This leads to the third aspect, which is that all actors, human and nonhuman, are relationally, and mutually enacted, that is, they are brought into being in the meeting between them, in what can be understood as assemblages (Law & Mol, 2008). Through ANT, we can explore the multiplicity of age facilitated by nonhuman actors that take part in the enactment of age, as well as by human actors and implicit expectations of how to do age in given situations.

Using *tweens* (children 8–12 years old) in a Norwegian setting as an example, we can see how, by incorporating a sociomaterial perspective, time as singular becomes troubled. Implicitly, the word tweens conveys what this age group consists of: those who are between childhood and youth. Contrary to seeing tweens as residing in a liminal stage, or in between, they are rather both: They are a being child and a becoming teenager and engage in what I term *age-shifting*. Age-shifting is the possibility to shift between ages, drawing on childhood and teenager repertoires depending on the situational and relational assemblages (Sørenssen, 2015). In my study, girls in their tweens described themselves as being in-between younger children and teenagers, as being able to be small and big in different situations (Sørenssen, 2014). Age-shifting could be induced due to both social frames and material objects, such as makeup. The girls explained what type of makeup was, or was not, appropriate depending on their biological age, where time serves as an ontological property of the tween, but also on the materiality of the makeup and the relational setting, which thus disrupts the singularity, increments, and sequence of time constructed by developmental stages. The girls were too young to wear lipstick at school but could wear lipstick at parties, while lip gloss was defined as being acceptable in a school setting.

ANT can open for multiple enactments of age by not essentializing age. Doing age is not merely social; age-shifting is enacted with both human and nonhuman actors. It is facilitated and limited in different assemblages, allowing the girls to be children and to be becoming teenagers in different age performances. The notion of age-shifting allows us to view age as a social strategy but also as flexible and contextually and relationally dependent. In addition, age-shifting and the ANT perspective can reveal how time in childhood can be understood not as singular but rather as multiple. By staying with ambivalence and complexity, this view can further our understanding of childhood, suggesting that both time and childhood need to be explored through an open-ended, relational, and antiessentialist perspective to avoid premade categories.

Multispecies caring relations and childhoods

Riikka Hohti and Tuure Tammi

We have been collaborating for years in research at the intersections of childhood studies, education, and humananimal studies. As we employed critical posthumanist and feminist new materialist theories, multispecies methodologies, and feminist storytelling, we have become attentive to a multitude of relations also involving intersecting unequal (e.g., speciesist and colonial) histories. In our multispecies ethnographic work on childanimal relations, the most thought-provoking setting was the greenhouse. The greenhouse is an educational zoo built in the atrium of a regular secondary school building, complete with all the technology needed to maintain a subtropical climate, which is the home of dozens of different animals and plants. We spent four months in this

place, following the engagements between animals such as gerbils, roosters, and birds with a group of students who took responsibility for caretaking of these animals as part of their schooldays.

Inside the school building we cross the entrance hall, one knows these kinds of secondary school entrance halls by heart, they are so familiar, always similar but when we open the greenhouse door, another world overwhelms. Scents and smells from blooming and decaying plants, bright lights, cries, shouts, sounds and chirps, accompanied by smaller rustles and the humming sound of a humidifier, stable rotation of the air conditioner in the ceiling. We are anxious to go there and hear what's new, how the kids, other animals and plants are doing.

Institutional linear time heavily shapes the school life, from the fixed structures of lessons and breaks, which distribute bodies and movement in specific ways across the school building, to how learning is organized according to age groups and curricula based on the teleological idea of progress. In the greenhouse, however, we observed—and indeed felt—how the institutional time became blurred and multiplied. Foregrounded here were cycles of life that were not human only, such as the intersecting metabolic cycles shaping the caretaking practice: rhythms involving food, excrement, cleaning, getting dirty, feeding, eating, drinking, getting dirty, and cleaning again. Cycles of births and deaths intertwined with practices such as breeding and euthanasia. Various life modes and life spans mixed and mingled: movements and speeds belonging to animals such as the 80-year-old turtle Matilda, the slow pace of giant African snails, the quick-to-hide gerbils, the almost imperceptible insects feeding on the plants of the greenhouse, the microbial smells of decay. These processes took place in created conditions, yet with further temporal cycles such as the short moments of daylight in mid-winter above the glass ceiling.

Immersed in the above-described more-than-human rhythms and temporalities, it happened often that we did not leave the place as planned but stayed there, feeling energized. And so did some students, we noticed, who often left only when the janitor closed the doors late in the evening. Coming from fieldwork conducted in another school, we both noticed a clear difference in atmosphere and experience of time. Perhaps it was this opening of singular institutional time into a multiplicity of times that created this energy and, on the other hand, made us halt and refrain from taken-for-granted research procedures that leaned on humancentric theories and ethics. Weaver and Snaza (2017) write about the necessity of listening in more-than-human research, which for them enables us to reenter the worlds we are examining "as students, as newcomers" (p. 1061).

To make sense of the caretaking practices involving young people and their respective care animals, we turned to the relational feminist theory of care by Maria Puig de la Bellacasa (2017), which helped us to approach childanimal relations as not only axiomatically positive but also as messy, tense, and difficult. According to this theory, care involves three intertwining dimensions: material, hands-on maintenance work, affective engagement (e.g., feeling responsible for someone), and ethical-political involvement (e.g., speaking of "good care").

Handling animals was what the carers of the animals often did, as the shared understanding was that the young people needed to keep the animals company so that the animals would get used to their "own" humans' touch. These repetitive encounters allowed a sensitivity to the other's needs and responses to emerge through micro movements (see Tammi & Hohti, 2020). It was in such encounters that students made observations of the animals becoming old, possibly having a tumour, perhaps being pregnant, or having eaten too much because they weighed more than before. Through repeated physical touch, this knowledge emerged from the care relation, further shaping and

affecting the very relation. These repetitions are different from those normally included in school days, because they do not serve linear ideas of progress.

Multiple times and scales of lives across species are brought into a dynamic relation with each other through care in the greenhouse. Care draws the young caretakers of the animals into intra-active relations, which introduces a transformative state concerning both, one that is not based on the one-directional temporalities of human progress. Puig de la Bellacasa (2017) writes that "the work of care takes time and involves making time of an unexceptional particular kind" (p. 206). The particularity of care time comes from maintaining and sustaining, from the mundane repetitions. In short, particularity emerges from banality. Care at the greenhouse, however, is not innocent as it does not necessarily serve better futures for all beings involved (Puig de la Bellacasa, 2017). The caring assemblages can be intimate and intensive, but these "hot" intimacies sometimes flourish thanks to other, more distant and slower assemblages involving humans and animals, such as care in intensive chicken farms.

In our broader effort to rethink childhoods and education as more-than-human phenomena, we have discussed encounters between nonhuman animals and young humans. It is human-centered temporal constructs and notions that keep species hierarchy in place (see Hohti & MacLure, 2022; Schrader, 2012). The events in the greenhouse showed how focusing on multispecies caring relations makes more-than-human rhythms and temporalities surface, which is when other kinds of histories and childhoods can begin to be accounted for, ones that introduce us to a more modest way of being and growing up as human on Earth.

"Six Fridays and one Sunday," "Axolotl time," and "unintentional time": Figures for other child-times

César Donizetti Pereira Leite

I research children and image production to rupture colonial ways of thinking about childhood, children's development, and educational practices with children guided by the philosophy of difference. From this position, it is practically impossible to talk about childhood without addressing time as well. As childhood studies researchers and pedagogues, in our educational practices and our analytical categories in the field of psychology and pedagogy, the ways in which we conceive childhood have a close relationship with the ways we approach children; similarly, our practices with children indicate our ways of thinking about childhood.

Allied to certain conceptions of time, in our daily practices, we always insert time—or temporality—into a certain perspective of space—or spatiality. Time, mostly in our educational practices at school, always puts us in front of a composition, stratification, spatial organization. Starting from nursery school, school builds—through an idea of childhood and a temporal and spatial organization—a way of life and a way of existence in the world that shapes and modulates children's bodies, which is a colonizing process. Shaping and modulation create, within the child, the passage to the world, to the system, to adult life.

Children's bodies and passage to the world are modulated by discourses of developmental psychology and pedagogy. In developmental psychology, there is a precise chronological and linear demarcation of time—an evolutionary and accumulative way of thinking of the child's development. Knowledge is also broken up, from minor complexity to major complexity, and is delivered in the curriculum. All of that is justified by a model of development that underlies ways of living time, organizing time, thinking about childhood, and approaching the child. Within this perspective, the relationship between childhood and time creates a "political regime" that inserts the child in a predetermined world.

Besides this adult-structured world, there are children and their ways of living, their ways of being in the world and dealing with different situations. I introduce three examples that may open new perspectives on the discussion of childhood and time.

- (1) *Pinocchio* by Carlo Collodi (2021) and its film version directed by Roberto Benigni (2002) tell the story of a puppet boy. During his wanderings, Pinocchio meets Lucignolo, who will become his dearest friend. Lucignolo problematizes the practices and purpose of school. He often insinuates that he will never give his body to stultifying and disciplinary practices, which modulate bodies and subjectivities through domestication, chronologization, and the regulation of time. Lucignolo takes Pinocchio to the Land of Toys, where time has a different dimension and the calendar follows another perspective presenting other possibilities. In this playland, each week is made of six Fridays and one Sunday; also, the holidays start on the first day of January and end on the last day of December. These time dimensions foreshadow possibilities of occupying spaces, creating a clear rupture with the time measured by a fixed calendar, which is predetermined, rhythmic, and ritualized. In those other space-times it is possible to crack, twist, tear, and break up common perspectives of time.
- (2) The second example is *Idea of Childhood* by Giorgio Agamben (2012), which presents a very curious figure: a salamander that inhabits the fresh waters of Mexico. This salamander, called Axolotl, belongs to a curious type of evolution called *evolutionary regression*. In other words, to survive the axolotl had to stay in its infantile body, and from this point develop its reproductive system. In the same direction, Agamben presents a certain explanatory model of human evolution in which man would also have evolved, not from adult individuals, but from the offspring of a primate that had prematurely acquired the ability to reproduce. Child to adult progression and evolutionary progress are both troubled by this example.
- (3) In my research with colleagues, we produced images with children and teachers in public early childhood education in Brazil (Leite, 2012; Leite & Cammarota, 2020). We observed that the images (photos and films) produced by children are marked by accidental, casual, unintentional cuts, consequences of quick looks, unfocused glances, and noises. This childlike state of images shatters linear filmic and photographic narratives of our culture. It is as if the children, far from the predetermined linearity of time, mess with our perceptions of the world. It is as if they set us as strangers in this world and create a world that is presented as blocs of sensations (Deleuze & Guattari, 1994). A world as such is a "a compound of percepts and affects" (p. 164); like an art piece that exists independently of the meanings and sensations individuals attribute to them, so is childhood.

Puer tempus: The child within the philosophy of beginning

Karolina Szymborska

My thoughts approach questions from childhood studies, a field that engages in highlighting and questioning childhood's temporal nature. I bring those questions together with a shift caused by a philosophical dispute that took place in 19th-century children's literature. Until the 19th century, childhood identity was often shown in literature and philosophical treatises (from Augustine's *De Civitate Dei* to Kierkegaard's *Fear and Trembling*) as established in relation to the sacred or profane understanding of time. When forms of nonempirical reasoning described the child as bearing a "transcendent cognition," children were perceived as temporal and finite. In the situation of a fundamental crisis of faith, revealed by modern philosophy and science, this way of thinking has lost its validity. A new paradigm emerged in which the child was granted messianic power and their being became infinite, although stripped of sacred connotations. This transition from secular to postsecular models of experiencing time was accompanied by a reconstruction of the temporal perceptions of a child's being—and that required a new beginning and validation in children's literature. Thus literary discussions around the child

inherited the complexities of two intricate philosophical debates: one on the child's finitude and the other on their rebirth through beginning. On the threshold of the 20th century, philosophy moved away from finiteness toward a new paidocentric modus I term here the "philosophy of beginning." One of the most important features of this breakthrough was the reflection on the child's "inner temporal consciousness" (Sokolowski, 1964), conceptualizing the nature of children in relation to temporality and, in turn, attributing children's nature as a recurring process of existential and eschatological beginnings. While the child's inner temporal consciousness draws mainly on their individual experience of a changing image of the Self, the existential and eschatological aspects emphasize the child's archetypical temporal essence: universal and infinite. Literature challenged the superposing of both tendencies, questioning the alignment between children's agency with the sacred explanation of being in time.

This transformation in modern Europe triggered the establishment of a new form of "time" narrative in children's literature that emerged from the adult genre known as the novel of time—Zeitroman. This term was first used in "adult" literature by Clemens Brentano in the 18th century to describe an expanded form of a social novel that portrays the society of the time and its effect on the individual. Zeitroman in children's literature went in a different direction, expressing in the 18th century the awareness of time's effect on a child's identity and maturation, provoking the child's perpetual return from the linear to the eternal chronotope described by Bakhtin.

In 20th-century children's literature, Zeitroman concentrates on showing the psychological and moral growth of the child protagonist, as an alternative model for recognizing the child's temporal nature. However, at the beginning of the 21st century, the genre directed philosophical tensions from universal to existential concerns, depicting life and death, not in the abstract terms of the infinity versus finitude of a child's life, but in terms of the universe of a child's temporal consciousness. In the literary plot, a child's being is established during temporal rites of passage: through time travel, time loop, precognition, time war, time slip, etc. These time-based encounters shape the existential and ontological dimensions of a child's psyche, their temporal introspection, suggesting that in their subconsciousness lies a temporal "mirror stage"—paraphrasing Lacan's (2007) terminology. When the hero enters such encounters, she or he must develop tools to conceptualize themselves as a finite or infinite being and recognize their own reflection as a time-being. Facing the mirror of identification, the child establishes their temporal image, integrating the fragmented chronotope of the Self.

This identification process introduces a new ambiguous narrative figure—puer tempus—that introduces a new mode of experiencing time consciousness. This archetype embraces the dialectic that takes place between the beginning and the end of the child's life, epitomizing the temporal mirror stage. In this archetype, there is still a residual difference between immanence and transcendence. We see the intertwinement of the child's present and future, underlining how children generate a conscious experience of time that affects how they perceive, think, or act. This intertwinement is best visualized in Ransom Riggs' novels (e.g., Miss Peregrine's Home for Peculiar Children, 2011), as the author tries to inhabit a material reality that rejects infinity, creating an immersion in chronos like never before. It contemplates the child's time-being and the hero's escape from a time loop as the keys to understanding the child's implicit temporal structure of consciousness. Such depiction illustrates the child being entangled in chronos and in history, tying the child to the present, but also shows the child's tarnished finitude.

Contemporary writings such as Natalia Sherba's cycle *Time Wizards* or Monika Kowaleczko-Szumowska's *Gallop '44* seem to show that the child's being is entangled in the perspective of eternity. However, children are torn apart by history and acquire the trauma of death. To constitute self-recognition, the textual child must recover and interiorize, or reject and remodel, the sacred and profane eternal time and reestablish a connection within their beginning. In this manner, they can learn to inhabit the world and not dwell in eternity. The experience of inner temporality transforms children in literature: They choose life over death, beginning over the end.

Ubuntu philosophy, relational time, and childhood

Norma Rudolph

I write from my experiences of living and learning with diverse communities in Southern Africa that straddle research and activism, revealing hierarchies of knowledge and colonial thinking. Different visions of childhood and society emerge from different epistemologies, philosophies, cosmologies, and knowledges. The dominant global construction of childhood and schooling is entangled with the linear notions of time and progress. A relational notion of time and knowledge emerges in epistemologies of the South (Escobar, 2020) that challenge the colonial view of time by finding new ways to think about time that "make strange our understandings of pasts, presents and futures" and imagine the possibility of past frustrated hopes motivating action in the present (Craps et al., 2017, p. 502).

Nsamenang (2006) describes how human existence in African contexts is perceived as cyclical, beginning with spiritual selfhood, when the mother becomes pregnant, moving to a social selfhood, and ending with biological death, which again is the beginning of ancestral selfhood. Epistemologies of the South offer a way of knowing that does not separate "thinking from feeling, reason from emotion, knowledge from caring" (Escobar, 2020, p. xxxv). I understand this way of knowing and being to extend beyond the connectedness of all humans to include the living dead (frequently referred to ancestors), the yet to be born, and everything else. In Indigenous cosmology, everything is connected, not only humans but all beings, including plants, rocks, rivers, sea, sky, sun, and moon. Henderson (2016) vividly illustrates this by documenting children's everyday pursuits, including collecting water and herding cattle in uKhahlhamba, South Africa. She shows that "children can depict both the concrete forms of the world—flora, fauna, geologies, and waters—and the ways that these are crisscrossed with human and more-than-human relations" (Ross & Pentecost, 2021, p. 8, referring to Henderson). Western metaphysics describes "the natural" and "the social" as separate realms. However, from children's stories of their activities, as documented by Henderson, we learn that these realms are woven into and through one another and absorbed in the play of everyday life as children live it and acquire valued dispositions. Henderson also describes how the daily activities of even the very young offer forms of independence.

The construction of time as nonlinear in African Indigenous cosmology has implications for different visions of childhood in communities across Africa. Time is relational and cyclical, and transitions of the soul include physical and supraphysical realms. As an example, I share here a snippet from an unpublished animation, *Indlela Yokuphila* (Mayniham, 2021), in which one story about the soul's journey is told to a group of children by an isiZulu-speaking *Sangoma* (healer) whose spirit family is the whale. The storyteller explains to the children that when your time comes you will join the ancestors in the ocean. Your soul travels along the river into the ocean following the songs of your great-great grandmothers and learning much and exploring on the way. It is an endless realm of knowledge, wisdom, and wonder. When you arrive in the deep ocean, your ancestors are waiting to receive you with the greatest love, and they know exactly who you are and where you came from. You are welcomed by your great-great grandmother, and you become an ancestor. You spend a long time in the ocean until "pressing matters" need your knowledge back on earth and you are called back to the physical realm by the song of your next mother (Maynihan, 2021). From this perspective, children are born with wisdom and experience of previous lives on earth and as ancestors.

Beliefs in reincarnation influence conceptualizations about children and their humanness, personality, and agency (Einarsdottir, 2004). In many Indigenous groups, from the Beng of West Africa to the West African Papel, babies are seen as reincarnated, born with the soul of an ancestor (Einarsdottir, 2004; Gottlieb, 2004). Babies, thus, are considered as beings (rather than human becomings) already having a particular personhood that has been

inherited at the time they are born. However, this construction of personhood exists in relations and interactions with others and is always in process rather than completely formed. For the Ng'ombe in Zambia, the baby has become a spiritual being when the mother feels its first kicks (Ross & Pentecost, 2021). As a pure spiritual being, the unborn or newborn infant can communicate between worlds, "and as such, wields considerable power" (Ross & Pentecost, 2021, p. 14). From this perspective, the parent-infant relations are understood to reflect the surrounding complex spiritual and social relations. In some communities, illnesses and deaths of babies are often assumed to be the ancestors' punishment for the wrongdoings of the parents or other community members. An infant can act to restore harmonious relations, for example, by prompting a parent to apologize for an indiscretion. From a Ng'ombe perspective, this capacity is not of the individual baby, but it is a relational, spiritual, and social capacity as the "baby and parents share and move each other's emotional states" (Smørholm, 2016, p. 355).

Given that in many communities adults generally perceive babies, even before they are born, as spiritual and social beings, this means that they are products of, and produce, relations with others (Smørholm, 2016, p. 349). This conceptualization in turn influences constructions of caregiving. From an ubuntu perspective, the primary role of caregivers is understood by many to be helping the child remember who she is and what she already knows. The emphasis is on listening to children and recognizing them as spiritual beings. This does not exclude learning new skills and gaining new understandings. For the Beng in West Africa, young children need help to become fully human after living as "lively, energetic, and multilingual beings" (Smørholm, 2016, p. 349).

Constructions of childhood emerging from relational notions of time challenge the globalized and universalized model of early childhood development policy and practice with its normalized ideas of agency, vulnerability, development, family, and care and invites us to think otherwise.

Inconclusive remarks: Childhood and time as mutually affecting multiplicities

Camila da Rosa Ribeiro and Zsuzsa Millei

Readers were invited to follow the thought experiments of the authors as they moved from showing the ways in which time as progression is foundational to Western educational thought or how releasing childhood from linear and sequential time removes the singularity of childhood and age norms. Other thought experiments sought to highlight the "coldness" and singularity of linear time in contrast to the temporal cycles and multiple temporalities of plants and animals and children's unconstrained time experimentations. Still other thought movements decoupled the unitary child and the inner temporal consciousness of life advancing from birth to death from the profane (finite) conception of time. The last movement brought into view plural selfhoods of African Indigenous cosmologies and the understanding of children as ancestors. These movements together contribute to challenging and providing alternative viewpoints to modern liberal childhood and perhaps will set off similar thought experiments that lead to the construction of new research onto-epistemologies.

Making strange understandings of pasts, presents, and futures, as well as sequences of childhood to adulthood and birth to death, the authors provided multiple openings by highlighting intensities, rhythms, tempos, micro movements, parallel timespaces, circularities, and finite or infinite dimensions of the time of childhood and time in childhood and children. These conceptions and perspectives signal the significance of moving our attention to the duration of childhoods as a child childing, inspiring a disposition to open-endedness and antiessentialism that cannot be reduced to one onto-epistemological engagement. We performed here a form of practice by bringing into conversation thought experiments and fieldwork analyses to bear on childhood and time as mutually affecting multiplicities.

References

Agamben, G. (2012). A ideia de prosa [Idea of prose]. Autêntica. (Original work published 1985)

Benigni, R. (Director). (2002). Pinocchio [Film]. Walt Disney Productions.

Benjamin, W. (1999). The Arcades Project (H. Eiland & K. McLaughlin, Trans). Harvard University Press.

Burman, E. (2020). *Developments: Child, image, nation* (2nd ed.). BrunnerRoutledge.

Collodi, C. (2021). *As aventuras de Pinóquio: A História de um boneco* [The adventures of Pinocchio]. Autêntica. (Original work published 1881)

Couto, M. (2011). E se Obama fosse africano? e outras interinvenções [What if Obama was African? and other interinventions]. Companhia das Letras.

Craps, S., Crownshaw, R., Wenzel, J., Kennedy, R., Colebrook, C., & Nardizzi, V. (2017). Memory studies and the Anthropocene: A roundtable. *Memory Studies*, 11(4), 498–515. https://doi.org/10.1177/1750698017731068

Deleuze, G., & Guattari, F. (1994). What is philosophy? Columbia University Press.

Diaz-Diaz, C., & Semenec, P. (2020). Posthumanist and new materialist methodologies: Research after the child. Springer.

Einarsdottir, J. (2004). Tired of weeping: Mother love, child death, and poverty in Guinea Bissau. University of Wisconsin Press.

Escobar, A. (Ed.) (2020). Pluriversal politics: The real and the possible. Duke University Press.

Freire, P., & Faundez, A. (1989). Learning to question: A pedagogy of liberation (T. Coates, Trans.). Continuum.

Frønes, I. (1995). Among peers: On the meaning of peers in the process of socialization. Scandinavian University Press.

Gottlieb, A. (2004). The afterlife is where we come from: The culture of infancy in West Africa. The University of Chicago Press.

Hanson, K. (2017). Embracing the past: "Been," "being," and "becoming" children. *Childhood*, 24(3), 281–285. https://doi.org/10.1177/0907568217715347

Henderson, P. (2016). Mapping journeys through landscape: Phenomenological explorations of environment amongst rural AIDS orphans in Kwazulu-Natal, South Africa. In R. Boswell & F. Nyamnjoh (Eds.), *Postcolonial African anthropologies* (pp. 86–111). HSRC Press.

Hohti, R., & MacLure, M. (2022). Insect-thinking as resistance to education's human exceptionalism: Relationality and cuts in more-than-human childhoods. *Qualitative Inquiry*, 28(3-4), 322–332. https://doi.org/10.1177/10778004211059237

Ibrahim, H. (2021). Black age: Oceanic lifespans and the time of Black life. NYU Press.

James, A., & Prout, A. (2015). Re-presenting childhood: Time and transition in the study of childhood. In A. James & A. Prout (Eds.), *Constructing and reconstructing childhood* (pp. 202–219). Routledge.

Kohan, W. (2021). Paulo Freire: um menino de 100 anos. Núcleo de Estudos de Filosofias e Infâncias.

Kowaleczko-Szumowska, M. (2019). Galop '44. Literacki Egmont.

Lacan, J. (2007). The mirror stage as formative of the I function as revealed in psychoanalytic experience. In B. Fink (Trans.), *Écrits: The first complete edition in English* (pp. 75-81). W. W. Norton & Company. (Original work published 1949)

Latour, B. (2005). Reassembling the social-an introduction to actor-network-theory. Oxford University Press.

Law, J., & Mol, A. (2008). The actor enacted: Cumbrian sheep in 2001. In C. Knappett & L. Malafouris (Eds.), *Material agency: Towards a non-anthropocentric approach* (pp. 57–77). Springer.

- Leite, C. D. P. (2012). Infância, experiência e tempo. Cultura Acadêmica.
- Leite, C. D. P., & Cammarota, G. (2020) Childlike images and education: Perspectives and possibilities on education of children. In M. Schroder (Ed.), *Early childhood teachers: Global practices, challenges, and prospects* (pp. 1–38). Nova Science.
- Malone, K., Tesar, M., & Arndt, S. (2020). Theorising posthuman childhood studies. Springer.
- Marten, J. (2018). The history of childhood: A very short introduction. Oxford University Press.
- Masschelein, J., & Simons, M. (2013). In defense of school. Education, Culture, & Society Publishers.
- Maynihan, M. (Director). (2021). Indlela Yokuphila [Unpublished animated film].
- Millei, Z. (2021). Temporalizing childhood: A conversation with Erica Burman, Stephanie Olsen, Spyros Spyrou, and Hanne Warming. *Journal of Childhood Studies*, 46(4), 59–73. https://doi.org/10.18357/jcs464202120211
- Murris, K., & Kohan, W. (2021). Troubling troubled school time: Posthuman multiple temporalities. *International Journal of Qualitative Studies in Education*, 34(7), 581–597. https://doi.org/10.1080/09518398.2020.1771461
- Nsamenang, A. B. (2006). Human ontogenesis: An Indigenous African view on development and intelligence. *International Journal of Psychology* 41(4), 293–297. https://doi.org/10.1080/00207590544000077
- Pacini-Ketchabaw, V., & Kummen, K. (2016). Shifting temporal frames in children's common worlds in the Anthropocene. *Contemporary Issues in Early Childhood*, *17*(4), 431–441. https://doi.org/10.1177/1463949116677930
- Puig de la Bellacasa, M. (2017). Matters of care: Speculative ethics in more than human worlds. University of Minnesota Press.
- Qvortrup, J. (2009). Are children human beings or human becomings? A critical assessment of outcome thinking. *Rivista Internazionale di Scienze Sociali*, 117(3/4), 631–653. http://www.jstor.org/stable/41625246
- Riggs, R. (2011). Miss Peregrine's home for peculiar children. Quirk.
- Ross, F. C., & Pentecost, M. (2021). Still unknown and overlooked? Anthropologies of childhood and infancy in Southern Africa, 1995–2020. Ethnos, 1–22. https://doi.org/10.1080/00141844.2021.1994622
- Schrader, A. (2012). The time of slime: Anthropocentrism in harmful algal research. *Environmental Philosophy*, 9(1), 71–94. http://www.jstor.org/stable/26169396
- Sherba, N. (2016). Czasodzieje. Klucz czasu, vol.1. EneDueRabe.
- Smørholm, S. (2016). Pure as the angels, wise as the dead: Perceptions of infants' agency in a Zambian community. *Childhood*, 23(3), 348–361. https://doi.org/10.1177/0907568216644032
- Sokolowski, R. (1964). Immanent constitution in Husserl's lectures on time. *Philosophy and Phenomenological Research*, 24(4), 550. https://doi.org/10.2307/2104762
- Sørenssen, I. K. (2014). Domesticating the Disney tween machine: Norwegian tweens enacting age and everyday life [Doctoral dissertation, Norwegian University of Science and Technology]. NTNU Open. https://ntnuopen.ntnu.no/ntnu-xmlui/bitstream/handle/11250/244228/756067_FULLTEXT01.pdf?sequence=1
- Sørenssen, I. K. (2015). The social construction of everyday concepts: Constructing the "tween." *BARN*, 33(2), 81–90. https://doi.org/10.5324/barn.v33i2.3452
- St. Pierre, E. A. (2018). Writing post qualitative inquiry. Qualitative Inquiry, 24(9), 603-608. https://doi.org/10.1177/1077800417734567
- Tammi, T., & Hohti, R. (2020). Touching is worlding: From caring hands to world-making dances in multispecies childhoods. *Journal of Childhood Studies*, 45(2), 14–26. https://doi.org/10.18357/jcs452202019736
- Tesar, M., Farquhar, S., Gibbons, A., Myers, C. Y., & Bloch, M. N. (2016). Childhood and time: Rethinking temporality in early childhood education. *Contemporary Issues in Early Childhood*, *17*(4), 359–366. https://doi.org/10.1177%2F1463949116677931

- Tesar, M., Guerrero, M. R., Anttila, E., Newberry, J., Hellman, A., Wall, J., Santiago-Saamong, C. R., Bodén, L., Yu, H., Nanakida, A., Diaz-Diaz, C., Xu, Y., Trnka, S., Pacini-Ketchabaw, V., Nxumalo, F., Millei, Z., Malone, K., & Arndt, S. (2021). Infantographies. *Educational Philosophy and Theory*, 1–19. https://doi.org/10.1080/00131857.2021.2009341
- Uprichard, E. (2008). Children as "being and becomings": Children, childhood, and temporality. *Children & Society*, 22(4), 303–313. https://doi.org/10.1111/j.1099-0860.2007.00110.x
- Weaver, J. A., & Snaza, N. (2017). Against methodocentrism in educational research. *Educational Philosophy and Theory*, 49(11), 1055–1065. https://doi.org/10.1080/00131857.2016.1140015