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Do theory and pedagogy have an impact on provisions for outdoor learning? A comparison of approaches in Australia and Norway

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In this paper, we contrast the early childhood education and care aims and curriculum in Norway and Australia and the theoretical underpinnings of Norwegian and Australian pedagogy in an attempt to partially explain the different approaches to (risky) outdoor play in these two countries. We argue that Norwegian pedagogical approaches may allow teachers to theorize more about, and place greater emphasis on, physical and motor development than teachers in countries such as Australia. Evidence includes reference to theories typically used in Norwegian and Australian writing. Additionally, we examine interview data from teachers, which reveals that both groups of teachers share similar understandings of the importance of risk-taking in play, but there is more consistency between belief and practice for Norwegian than Australian teachers. We argue that the differences in alignment of belief and practice in the two countries are partly attributable to the differing theoretical bases of teachers' pedagogical approaches in each country. These findings have implications for theorizing about outdoor play and learning. In particular, we argue that early childhood teacher training programmes should include approaches based on Gibsonian and Dynamic Systems theories.

Keywords: *Outdoor play; Risk-taking; Gibsonian theory; Dynamic systems theory; Early childhood pedagogy*

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Introduction

In many western countries, the demise in opportunities for young children's play, particularly outdoor play, has been noted (Clements, 2004; Waller, Sandseter, Wyver, Årlemalm-Hagsér, & Maynard, 2010). In particular, concerns have been raised about reductions in outdoor play opportunities that involve risk (Gill, 2007). Risk-averse responses to children's play are increasing in many western countries. Researchers, educators and health practitioners have raised concerns about the curbing of free play activities and have argued that risk-reduction strategies in playground management paradoxically escalate the risk of adverse developmental and health outcomes (Wyver, Bundy, et al., 2010). Although risk-averse responses to children's play are increasing, some countries, such as Norway, have largely defied this trend and continued to encourage children to engage in risky play (Sandseter, 2009). In Australian early childhood centres, risk aversion has led to a regulatory environment that, whilst promoting safety, limits the experiences of children and fails to take advantage of the pedagogical decision-making capabilities of teachers (Little & Wyver, 2008). A range of underlying factors for these differences have been proposed (e.g., Wyver, Tranton, et al., 2010). Interestingly, limited attention has been given to the theories¹ underlying teachers' pedagogy. Aside from excessive concerns about safety, leading to risk-averse responses (see, e.g., Bundy, Tranter, Naughton, Wyver, & Luckett, 2009), other factors contributing to reductions in outdoor play include the focus on direct teaching of academic skills in preference to other forms of learning (Nicolopolou, 2010). It is not our intention to challenge the evidence for the range of factors already identified. Instead, we are interested to examine whether teachers' pedagogy may be a further contributing factor, with a particular emphasis on the theory underpinning pedagogy. This point is important for several reasons, including: as a basis for differentiating theories on their potential to contribute to pedagogical approaches to outdoor play and learning; it may direct researchers to theoretical approaches that are useful for developing questions about outdoor play and learning; and extension of understanding of theoretical approaches that should be examined in teacher training and professional development programmes.

A group of studies in which the authors of this paper have been involved suggests that Australian and Norwegian teachers, in general, share a belief that children should be allowed to take risks during play (Little, Sandseter, & Wyver, *in press*), and this type of risk-taking usually occurs in outdoor play. There does, however, seem to be a distinct difference in the way teachers theorize about outdoor play and risk-taking. In this paper, we consider whether differences may be attributable to the theoretical approaches underpinning Australian and Norwegian pedagogy. To do this, we examine the main theoretical influences, while acknowledging there is a diversity of theoretical approaches in each country.

We begin by providing an overview of the aims of early childhood education and care (ECEC) in each country. We then examine the main theoretical approaches underpinning pedagogy in each country.² This is followed by a discussion of two studies of teachers' beliefs and practices relating to outdoor risky play: one from

Australia, the other from Norway. We argue that the differences in alignment between beliefs and practices may be partly attributable to different theoretical approaches underpinning pedagogy.

ECEC aims and curriculum

Norwegian ECEC (Barnehage), its aims and curriculum

In Norway, the ECEC institution (*barnehage*) is an early years setting working to meet and ensure educational and care needs of children from birth to six years of age. Decreed by law, all Norwegian children between zero and six years old have the right to be educated and cared for in ECEC institutions. Today (2009 data) around 90% of Norwegian children attend ECEC institutions. The education and care of children is a part of the educational system, but is seen as separate from mainstream schooling, which starts the year a child turns six and joins elementary school. The Norwegian Framework Plan for the Content and Tasks of Kindergartens (Norwegian Ministry of Education and Research [NMER], 2006) applies to all ECEC settings in Norway and guides their pedagogical work with children.

Children's well-being in early childhood education in Norway is closely related to children's right to participate, to be responsible and to be active (the rights of children enshrined in article 12 of the UN Convention on the Rights of the Child). They shall be able to express their views on the day-to-day activities of the ECEC, and children's views 'shall be given due weight according to their age and maturity' (NMER, 2006, p. 8). Children shall also have a large degree of freedom in terms of choosing activities. In Norway, children's right to play is regarded as an important element of the content of ECEC, and play is considered to have an intrinsic value and be a part of child culture. Play is also regarded as a means for learning and developing a complex set of skills, involving both expressions and impressions, and this means that ECEC professionals have special obligations to ensure and support children's play.

Outdoor play is particularly emphasized in the Framework Plan: 'Outdoor play and activities are an important part of child culture that must be retained, regardless of the geographic and climatic conditions' (NMER, 2006, p. 16). Norway has a close cultural attachment to nature and the practitioners make use of the outdoor environment when working with children (Hilmo, Bustos, Kaarby Osnes, & Holter, 2008; Nilsen, 2006). In Norwegian society, the concept *friluftsliv* (similar to the concept 'outdoor life', but holds a stronger notion of values and lifestyle) is an important part of the national cultural heritage. Across generations the traditions of visiting nature areas, hiking in the mountains or forest areas, sleeping out in the wild, fishing, hunting and exploring have been kept as a natural part of daily life. In this concept, 'toughening' of children has also been strong. In the Norwegian culture, encountering challenges and risks, particularly through spending time in nature, has been looked upon as an important part of growing up and becoming a sensible and well-functioning human being. The Framework Plan for the content and tasks of

kindergarten (NMER, 2006) states that: 'Kindergartens shall provide children with opportunities for play, self-expression and meaningful experiences and activities in safe, yet challenging surroundings', and by this includes a focus on the importance of a challenging play environment. An important part of the Framework Plan is also the ECEC practitioners' responsibility to let children encounter these challenges through play and activity. The aim of giving the children opportunities to play, to express themselves in safe and yet challenging surroundings, implies that the safety is necessary, but not sufficient, for ensuring good play environments. Research indicates that Norwegian children's opportunities to meet challenges and risks in their play within the ECEC setting are very good (Sandseter, 2010), due to a positive approach to risky play among ECEC practitioners (Sandseter, 2007, 2012) and physical environments that afford risky play (Sandseter, 2009).

Owing to the focus on being outdoors and close to nature promoting important possibilities for play, Norwegian ECEC institutions usually spend a great amount of time outdoors, more than 70% of the total time in ECEC in the summer semester and more than 30% of the total time in the winter semester (Moser & Martinsen, 2010), and they often make their own campsite in local nature areas for regular visits (Lysklett, Emilsen, & Hagen, 2003). Children usually have access to the wild landscape in the neighbouring areas. The outdoor environment in Norway provides multiple affordances for free play and learning situations. Also, an increasing number of ECEC institutions are spending their everyday life outdoors all year round. Norway has a large population of nature and outdoor kindergartens (*friluftsbarnhager*), and it is still rapidly growing. Many Norwegian parents seem to prefer this kind of ECEC institution for their children, and this is an expression of the general acceptance of challenging outdoor play in the Norwegian adult population. In nature and outdoor kindergartens, the opportunity for the children to meet physical challenges and risks is particularly good (Sandseter, 2009).

Australian ECEC, its aims and curriculum

Provision of ECEC in Australia reflects the historical, political and geographic context (Cheeseman & Torr, 2009). Historically, responsibility for education and care have been separated both between the three tiers of government (local, state and federal) and within each of these jurisdictions. A clear distinction has typically been drawn between preschools and schools, on the one hand, falling under the responsibility of education departments, and other services catering for children aged under five years being the responsibility of community service/welfare departments (Press & Hayes, 2000). This has resulted in, 'a complex and multilayered system of policy development, funding and provision of early childhood education and care in Australia today' (Cheeseman & Torr, 2009, p. 62). Various types of services have also emerged to cater to the diverse needs of families. Early childhood services available for children prior to the commencement of formal schooling might include long day-care, preschool/kindergarten, family daycare and occasional care services, with the majority of these being privately or independently operated, although many are not

for profit (Elliott, 2006). In addition, many children are likely to experience multiple ECEC arrangements to suit particular families' requirements (Cheeseman & Torr, 2009). In 2008, 29% of children aged zero to three years were enrolled in formal childcare settings, rising to 54% of children aged three to five years being enrolled in formal childcare or preschool services (Organisation for Economic Co-operation and Development, 2011).

In contrast to Norway, ECEC has not in the past been high on the political agenda; however, in 2009 the federal Australian government made a commitment to providing universal access to 15 hours-a-week, affordable, quality early learning programmes, delivered by a four-year university-trained teacher, for all children in the year before school (Council of Australian Governments, 2009). In conjunction with this, the introduction of the National Quality Standards and national curriculum in the form of the Early Years Learning Framework (Commonwealth of Australia, 2009) heralds the first steps in bringing about a more uniform approach to the provision of ECEC in Australia. Whilst the Early Years Learning Framework promotes the provision of natural environments that, 'invite open-ended interactions, spontaneity, risk-taking, exploration, discovery and connection with nature' (Commonwealth of Australia, 2009, p. 16), to date this aspect of the curriculum has received little research attention.

In most western countries, early childhood teachers and researchers draw upon a wide range of theories, but the dominant approaches have come from Piagetian, post-Piagetian and socio-cultural (Vygotskian or post-Vygotskian) theory (Soto & Swadener, 2002). Australia is consistent with this approach, which underpins not only academic writing, but also professional practice. For example, Early Childhood Australia's (2010) professional learning programme for the Early Years Learning Framework emphasizes socio-cultural theory. It is not disputed that socio-cultural theory has led to a range of positive pedagogical changes. Nonetheless, as will be discussed in the next section, socio-cultural theory has limitations that may make it difficult for Australian practitioners to establish alignment between theory and practice in outdoor spaces.

A further complication is that Australian practitioners, like most western practitioners, share what Smith (2011) refers to as the 'play ethos', which is the 'uncritical and extreme assertion of the functional importance of play' (2011, p. 271). There are at least two assumptions that seem to be associated with this ethos: there is a direct relationship between play and learning (Smith, 2011); and the teacher's role is to provide an environment in which children make choices, but not 'interfere' in children's play (Yelland, 2011). These assumptions have possibly led to a collective neglect of professional responsibility to evaluate evidence closely and use theory or empirical findings to consider whether all forms of play positively contribute to all children's learning. Lack of critical rigour has meant that play is rarely defined clearly (Yelland, 2011), the universality of the associations between play and learning is rarely questioned (Smith, 2011) and the 'dark side' of play is rarely explored (Grieshaber & McArdle, 2010). As Smith notes, the extremes of the play ethos have most probably emerged from the need for practitioners and researchers to constantly defend the role

of play in cultures that are sympathetic to play, but also see it as dispensable and of low priority compared with ‘real learning’ through direct teaching of academic skills.

Norwegian preschool teacher education

Norway has had a specialized early childhood teacher education since 1935. The Norwegian early childhood teacher education is now a three-year bachelor study that qualifies the students to be professional early childhood teachers for children from birth to six years of age, and pedagogical leaders in ECECs. The early childhood teacher bachelor study is based on a common national curriculum, although to some extent the different institutions have freedom to choose the structure and content of the early childhood teacher study they offer. All of the early childhood teacher education programmes in Norway include 10 subjects: pedagogy/education, arts and crafts, drama, music, physical education, religious and ethical education, mathematics, nature and environment, Norwegian/language and social studies. In addition, the students can choose a specialization of half-a-year full study within one of the 10 subjects.

In the last decade there has also been a development towards an even more specialized early childhood teacher education where the students can choose a bachelor programme that has an overall focus on, for instance, drama, art and music, nature and outdoor activities, interculturality, or children’s culture. This has led to a higher recruitment of students in early childhood teacher education, but also practitioners with a higher competence in certain subjects.

Australian preschool teacher education

Formal qualifications in ECEC can be gained through both the higher education and vocational education and training sectors from a range of government and private providers. At the university level, degrees may be offered as either three-year or four-year qualifications and in general they qualify graduates to teach children between the ages of birth and eight years; however, to meet teacher registration requirements some may qualify graduates to teach children aged from birth to 12 years (Productivity Commission, 2011). As part of the national reform agenda for ECEC, from 2013 a four-year qualification will be required as part of the universal access for all children to 15 hours of preschool education programmes in the year prior to starting formal schooling (Productivity Commission, 2011). University-qualified teachers currently account for approximately 16% of the early childhood workforce (Productivity Commission, 2011).

Although there is great variability in both structure and content for the early childhood teaching degrees offered by different institutions, typically they include curriculum content and professional experience related to working pedagogically with children across a range of settings that include school, pre-school and childcare (Productivity Commission, 2011; Woodrow, 2007). Curriculum content

includes pedagogy, child development, language and literacy, mathematics, science and technology, health and physical education, management and leadership, and creative arts.

Differences in theoretical approaches

As noted previously, Australian early childhood pedagogical approaches are loosely based on Piagetian and, more often, Vygotskian theory. These (social) constructivist theories assume that higher-order cognitive and linguistic structures guide exploration and processing of information. This is known as a top-down model of processing (Quinlan & Dyson, 2008). In Vygotskian theory, the role of social interactions and internalization are of particular importance. Norwegian approaches are based on Hendry and Kloep's (2002) lifespan model of developmental change, where development and learning are looked upon as changes within an individual's resource system as a result of encountering and mastering challenges, rather than increasing maturity associated with age. Within the subject physical education, the Norwegian approaches are based on both dynamic systems theory (Thelen & Smith, 1998) and Hendry and Kloep's lifespan model, but also Gibsonian theory (E.J. Gibson, 1988; J.J. Gibson, 1979), including some recent revisions by Heft (1988) and Kytta (2006). These approaches are considered to be bottom-up, because exploration of the environment is not mediated by higher cognitive processes in the development of knowledge. Perception guides exploration (E.J. Gibson, 1988). Central to Gibsonian theory is the idea of *affordances*, which are features of the environment that allow an individual to perform particular actions, but the individual needs to engage in exploration to learn about the many affordances in their environments (E.J. Gibson, 1988). Gibsonian theory therefore emphasizes direct engagement with the environment in order for learning about the environment to occur. Transmission of information through other methods such as verbally or pictorially is not adequate. For a practitioner working directly from Gibsonian theory, or extensions of Gibsonian theory (such as Heft and Kytta), opportunities for exploration will be central to their pedagogy. Constraints on exploration will need to be well considered, knowing that the experience cannot be substituted.

Table 1 provides an overview of the main theoretical differences underpinning Norwegian and Australian pedagogical approaches.

Although both the Piagetian/Vygotskian tradition and the Gibsonian traditions emphasize the importance of action in learning, it is perhaps the more specific articulation of this idea through the construct of affordances that leads to greater emphasis of the physical environment when Gibsonian approaches are used. From the Piagetian/Vygotskian tradition, it is possible to theorize about cognitive change with limited reference to the physical environment, but this is not the case when a Gibsonian approach is used. The Gibsonian approach emphasizes a direct relationship between the environment and learning, whereas the Piagetian and Vygotskian approaches consider this relationship to be mediated by cognitive and linguistic processes.

Table 1. Key theoretical approaches and associated classifications in child development: a comparison of influence in Norway and Australia

Theory	Overview	Influence
Gibson	Theory of perception. Introduced the idea of affordances. This is the ‘grand theory’ that has influenced others.	Norway > Australia
Heft (based on Gibsonian theory)	Developed a taxonomy of children’s outdoor environments based on physical properties.	Norway > Australia
Kyttä (based on Gibsonian theory)	Classified environments based on relationships between potential affordances and promoted, free and constrained action.	Norway > Australia
Piaget	Theory of cognitive development. Constructivist and top-down.	Diminishing influence in both countries, but Australia > Norway
Vygotsky	Social constructivist approach. Attention to tools of thought and the role of social interaction in development.	Australia > Norway
Dynamic systems theory	A systems theory that takes account of the changes in the child and the environment.	Norway > Australia. Dynamic systems theory appears in early childhood literature in Norway but is mainly confined to developmental psychology in Australia.

Two important classification systems have been derived from Gibsonian theory, namely Heft’s (1988) *environmental description* and Kyttä’s (2006) *Bullerby Model*. These classification systems provide a framework for examining environmental affordances. Heft’s classification of features, objects and materials draws attention to affordances of natural and built environments. It has been used by Norwegian researchers to evaluate early childhood environments (e.g., Storli & Hagen, 2010). Kyttä’s model in its current form relates more directly to neighbourhoods rather than early childhood centres. Nonetheless, the classification of the potential affordances, known as the fields of action, is relevant. The three fields of action are: field of promoted action, which includes the socially approved affordances; field of constrained action, which includes the affordances that are restricted; and field of free action, which includes the affordances that a child or group of children have discovered independently. Kyttä’s approach has been used when examining Norwegian approaches, for example, to consider practitioners’ control versus children’s open-ended discovery and risk-taking (Aasen, Grindheim, & Waters, 2009).

Contemporary approaches to cognitive and motor development—namely connectionist theory and dynamic systems theory—have replaced Piagetian and Vygotskian

theory (Thelen & Bates, 2003) in mainstream developmental psychology. However, the Piagetian and Vygotskian approaches still dominate education (Goswami, 2011). As noted earlier, reference to dynamic systems theory is now appearing in Norwegian pedagogical writing.

Preschool teachers' pedagogical practices

As part of a group of studies in which the authors of this paper have been involved, Australian³ ($n = 17$, 16 females, one male) and Norwegian ($n = 14$, nine females and five males) early childhood teachers were interviewed regarding approaches to planning for outdoor play, beliefs about risk-taking and safety, and their views about the regulatory environment and implications for their pedagogical practices. The findings from these studies have been reported in more detail elsewhere (Little, 2010; Little et al., in press; Sandseter, 2012), but the main themes are summarized here.

It is also worth noting that the proportion of male teachers compared with female teachers who participated in the interviews reflects the female to male teacher ratio in ECEC generally. In Australia, male teachers account for only 5% of the teacher workforce (Australian Bureau of Statistics, 2010). The proportion of male ECEC practitioners in Norway is 10.3% overall (Statistics Norway, 2010). There are also results that indicate male ECEC practitioners are more positive about risky kinds of play than female practitioners (Sandseter, 2012). Male staff appear to be particularly drawn to nature and outdoor kindergartens; Hagen (2005) found that there were 19% male staff, and Lysklett and Emilsen (2007) found 24% male staff in Norwegian nature and outdoor kindergartens.

In addition, whilst the paper focuses on differences in theoretical approaches between the two countries, in order to put some of the teachers' comments into context it is also necessary to understand the differences in the regulatory environment within the two systems, especially in relation to safety requirements. Australian outdoor play areas are highly regulated with regards to minimum space requirements and the height and arrangement of play equipment (see, e.g., Department of Community Services, 2004; Standards Australia, 2004). For example, in Australia, the current minimum required outdoor space per child is 7 m² (Department of Community Services, 2004) and the maximum free height of fall for play equipment is 1.5 m (Standards Australia, 2004), whereas the Kindergarten Act (NMER, 2005) and the Norwegian safety standards (DSB, 1996) do not stipulate a minimum requirement for outdoor space in Norwegian early childhood settings, and there is no maximum free height of falls as long as heights over 60 cm have an impact-absorbing surface.

Norwegian preschool teachers' practices

Overall, the Norwegian practitioners have an emphasis on giving the children opportunities for challenges and risks in play, even though they are also concerned about children's safety:

They could get hurt, but still they HAVE to be allowed to take risks—they have to find out that it wasn't such a big deal if I fell down—If they never experience this . . . then suddenly they're at a point in life where they REALLY fall, then it becomes serious . . . they have some scrubs and bruises—that's a part of life (female Norwegian ECEC practitioner, 56 years old).

They express an approach to children's risk-taking in play that means that practitioners have to stretch their own limits for risk and overcome anxieties about allowing the children to explore their environment, their motor competence and their courage:

We don't want anything bad to happen with the children, but of course we have to stretch our adult limits to let them try out their own limits—there are many children who climb higher than I feel comfortable with, but we have to let the children explore! (Female Norwegian ECEC practitioner, 60 years old).

When asked to evaluate positive or negative sides to risky play, all of the Norwegian practitioners evaluated risky play as positive for children. Their main arguments for this were a belief that this kind of play had a positive effect on children's overall development and the idea that they learned to meet challenges and push their own limits. Particularly, the Norwegian practitioners argued that risky and challenging play was important for the development of motor competence and motor control, learning new skills, developing their own courage and self-confidence, and finding out about dangers through their own experiences:

We can't make children's play TOO safe . . . that everything becomes too safe and children can't climb a tree because they could fall down. If we do that, we would hinder children's development . . . their motor competence, ability to encounter challenges and so on . . . We would restrict an important part of children's development (female Norwegian ECEC practitioner, 32 years old).

When exploring how the practitioners handled children's risky play in their kindergarten, the answers revealed that the Norwegian ECEC settings did not have common rules for what the children were allowed to do and not do concerning risk-taking in play. The practitioners talked about some 'unwritten' rules that were implemented into practice by a tacit agreement within the group of practitioners and between the practitioners and the children, but none of these were discussed or agreed upon within the staff group:

We have quite a common perception of what the children should be allowed to do, but of course we are different and have different views on certain things—that's normal. We don't have many rules, but we have a sort of common understanding of some kinds of situations, for instance whittling; in the autumn when they are three years old they're allowed to whittle with knives. But we always ask their parents if it's all right first (female Norwegian ECEC practitioner, 29 years old).

Even though there were some tacit rules, the practitioners usually made an individual evaluation of risky play in each play situation, considering each child individually according to the child's competence and risk mastery.

The emphasis on stimulating and challenging play environments for children is also strong among the Norwegian early childhood practitioners. The practitioners expressed that the children had great opportunities for risky play because of available play features such as large trees, varied sorts of terrain, places to hide, places to jump, play huts to climb on and switchbacks, as well as large play areas with access to move around and play freely:

I think the children have great opportunities for risky play in our kindergarten. Our play environment is well suited for that, we have no fences or anything like that. We have the forest with steep cliffs where the children climb and balance, and the large trees outside here where the children love to climb up very high. They seem to make use of the varied terrain we have in our kindergarten (female Norwegian ECEC practitioner, 29 years old).

The Norwegian settings included a lot of nature elements within the preschool playground, but they also frequently went on hikes to play in various nature areas covering vast spaces. According to the practitioners these hikes were important for children to gain experience from different kinds of natural environments and the various challenges and stimuli this represented.

The Norwegian practitioners expressed a desire to give the children opportunities for risky play, rather than restricting the children's urge for thrills and challenges. Still, they tried to evaluate the risk and give these opportunities within reason, while making the environment as safe as possible by keeping an eye on the children without interfering. In the Norwegian approach it can be seen that there is a close alignment between beliefs about outdoor play and risk-taking, and practice. This is now contrasted with the Australian approach, where teachers hold similar beliefs to the Norwegians but there is a misalignment with practice.

Australian preschool teachers' practices

The Australian practitioners similarly acknowledged the benefits of risk-taking in play for children's learning and development. When asked about what they thought risk-taking involved, many identified positive outcomes of risky play. They believed that responding to challenges and taking risks was necessary not only for motor skill development and competence but also for confidence-building. They also acknowledged the possibility of negative outcomes of risk-taking in play but felt that children needed to learn about risk and the consequences of their actions:

It is important for them to take risks because we all have to take risks in life and then we've also got to deal with consequence too, so it's definitely an important aspect of development (female Australian ECEC practitioner, 29 years old).

The practitioners' beliefs about the benefits of risky play were evident in their approaches to supporting the children's risk-taking. They acknowledged that risk is subjective, with perceptions of risk being influenced by an individual's prior experiences and abilities. Consequently, they emphasized the need to draw on their knowledge of individual children's abilities and patterns of risk-taking in providing

appropriate support and encouragement. Hence, in some situations adult involvement was seen as important to ensure safety or provide support while at other times children were allowed greater freedom to manage risks for themselves:

I think it's good to encourage them because if it's planned, it's safe to do so you want them to move out of their comfort zone to try something a little more risky . . . [but] there's no way I would let some children jump . . . you take precautions as well (female Australian ECEC practitioner, 53 years old).

Whilst the beliefs of the Australian practitioners on one level appeared to be very similar to those of the Norwegian practitioners, there were clear differences in how these beliefs translated into practice. Where the Norwegian practitioners emphasized the features of the environment that afforded opportunities for risky play, the Australian practitioners explained their planning decisions in relation to outdoor play in terms of promoting specific skill development or responding to children's interests. When asked to identify elements of the environment that promoted risky play, many identified natural features in the environment such as trees that the children wanted to climb, but all indicated that they could not allow the children to do so:

They like to climb trees and this place is fantastic for that but due to regulations we can't really allow them to climb very high or on any of the trees because if they do [climb] the ones that aren't on soft fall they could fall. Even the poles . . . they want to climb up them [but] there's no way! (female Australian ECEC practitioner, 28 years old).

It is this type of response that illustrates one of the key differences in the practices of the Australian practitioners in comparison with the Norwegian practitioners. Despite a desire to provide the children with opportunities for a wide range of physically challenging outdoor play experiences, many of the Australian practitioners expressed concern that their accountability in relation to external regulations meant they could no longer achieve that aim. Hence, when planning and setting up the environment for outdoor play the focus was on compliance with the regulations at the expense of providing stimulating and challenging environments:

The rules and regulations have cut down a lot of the risk-taking (female Australian ECEC practitioner, 48 years old).

It's probably because I'm a male but I think we see risks slightly differently. I have worked with a few men and we tend to take a few more risks when we set up [the equipment] but now I find I set something up and go 'ah, gives challenge and the kids are loving it' and then someone will come along and remind me that it's too close to the board and to move it and because I have to move it I have to change the level (male Australian ECEC practitioner, 36 years old).

It is apparent, then, that a tension exists for the Australian practitioners between their pedagogical beliefs and what they believe they can actually provide for the children within what they see as a restrictive regulatory environment.

Conclusion

The reasons why ECEC in one country maintains a strong commitment to (risky) outdoor play and another succumbs to the pressures of risk-aversion are multiple, complex and probably embedded in a wide range of beliefs, practices and policies within each country. The intent of this paper was to explore how different pedagogical approaches might lead to different teaching practices. This is a possible contributing factor that has, to date, received limited attention despite early childhood teachers playing a central role in advocating for change in learning environments. Although there are limitations to our approach and further investigation is needed, we present evidence that the theoretical underpinning of early childhood pedagogy may be important in the alignment of early childhood teachers' beliefs and practices relating to risky outdoor play. Although Australian and Norwegian teachers have similar levels of training and exposure to theory, it may be that greater emphasis on Gibsonian-based approaches and dynamic systems theory advantages the Norwegian practitioners in achieving a stronger alignment than Australians with respect to their risky-play beliefs and practices. The Gibsonian and dynamic systems approaches give the Norwegian ECEC teachers a theoretical basis that focuses on the individual's interrelationship with the environment through perception and utilization of affordances. This means that children's learning is put in direct relation to their actions in various environments. This gives Norwegian ECEC teachers a clearer theoretical rationale for prioritizing play and risk-taking in outdoor environments. Although socio-cultural theory has provided an important theoretical basis for Australian early childhood pedagogy in most domains, it does not support practitioners in making decisions about outdoor play and associated risk-taking.

Notes

1. Whilst aware of the differences between theory, philosophy and epistemology, for convenience we will use the term 'theory' throughout this paper to capture all three terms.
2. The reader will notice that this paper has two 'voices': one Australian voice and one Norwegian voice.
3. Of the Australian practitioners, six had university qualifications, four had an Advanced Diploma/Diploma and seven had a Certificate III. Given both the nature and duration of studies at each level, university-trained teachers have greater exposure to pedagogical theory.

Author biographies

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Helen Little is a Lecturer at the Institute of Early Childhood, Macquarie University, Australia where she teaches on undergraduate and postgraduate units in child development. She is a trained early childhood teacher and previously taught in preschools and primary schools in Sydney. She has been investigating children's risk-taking over the past seven years and her doctoral thesis examined the influence of individual, social and environmental factors on children's engagement in risk-taking behaviour in outdoor play. Her current focus relates to how the space and physical features available in the outdoor environment impact on children's experiences of risk-taking in play.

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References

- Aasen, W., Grindheim, L. T., & Waters, J. (2009). The outdoor environment as a site for children's participation, meaning-making and democratic learning: Examples from Norwegian kindergartens. *Education 3-13*, 37(1), 5-13.
- Australian Bureau of Statistics. (2010). *Australian social trends, June 2010: Child care* (cat. 4102.0). Retrieved February 2012 from <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/4102.0Main+Features50Jun+2010>
- Bundy, A., Tranter, P., Naughton, G., Wyver, S., & Luckett, T. (2009). Playfulness: Interactions between play contexts and child development. In J. Bowes & R. Grace (Eds.), *Children, families and communities: Contexts and consequences* (4th ed., pp. 76-88). Melbourne: Oxford University Press.
- Cheeseman, S., & Torr, J. (2009). From ideology to productivity: Reforming early childhood education and care in Australia. *International Journal of Child Care and Education Policy*, 3(1), 61-74.
- Clements, R. (2004). An investigation of the status of outdoor play. *Contemporary Issues in Early Childhood*, 5(1), 68-80.
- Commonwealth of Australia. (2009). *Belonging, being & becoming. The early years learning framework for Australia*. Canberra: Australian Government Department of Education, Employment and Workplace Relations.
- Council of Australian Governments. (2009). *Investing in the early years—A national early childhood development strategy*. Retrieved July 14, 2009, from http://www.coag.gov.au/coag_meeting_outcomes/2009-07-02/docs/national_ECD_strategy.pdf
- Department of Community Services (DoCS). (2004). *Children's services regulation 2004*. Retrieved November 2005 from http://community.nsw.gov.au/html/comm_partners/childrens_regs.htm
- DSB. (1996). *FOR 1996-07-19 nr 703: Forskrift om sikkerhet ved lekeplassutstyr* [Secondary law for safety of playground equipment]. Norwegian Directorate for Civil Protection and Emergency Planning. Retrieved May 2010 from <http://www.lovdata.no/cgi-wift/ldles?doc=/sf/sf-19960719-0703.html>
- Early Childhood Australia. (2010). *Early years learning framework: Professional learning program*. Retrieved February 2012 from http://www.earlychildhoodaustralia.org.au/eylfp/reflective_practice_and_the_early_years_learning_framework.php

- Elliott, A. (2006). *Early childhood education: Pathways to quality and equity for all children* (Australian Education Review). Camberwell, VIC: Australian Council for Educational Research.
- Gibson, E. J. (1988). Exploratory behavior in the development of perceiving, acting, and the acquiring of knowledge. *Annual Review of Psychology*, 39, 1–41.
- Gibson, J. J. (1979). *The ecological approach to visual perception*. Boston, MA: Houghton-Mifflin.
- Gill, T. (2007). *No fear: Growing up in a risk averse society*. London: Calouste Gulbenkian Foundation. Retrieved January 2010 from <http://www.gulbenkian.org.uk/media/item/1266/223/No-fear-19.12.07.pdf>
- Goswami, U. (Ed.). (2011). *The Wiley-Blackwell handbook of childhood cognitive development* (2nd ed.). Malden, MA: Blackwell.
- Grieshaber, S., & McArdle, F. (2010). *The trouble with play*. Maidenhead: Open University Press.
- Hagen, T. L. (2005). Trauste fjellfolk eller urban knikersadel?—hva kjennetegner de ansatte i natur- og friluftsbarnehager [What characterizes employees in nature and outdoor kindergartens?]. In O. B. Lysklett (Ed.), *Ute hele dagen* [Out all day] (DMMH report no. 1, pp. 15–22). Trondheim: Queen Maud University College.
- Heft, H. (1988). Affordances of children's environments: A functional approach to environmental description. *Children's Environments Quarterly*, 5(3), 29–37.
- Hendry, L. B., & Kloep, M. (2002). *Lifespan development: Resources, challenges and risks*. London: Thomson Learning.
- Hilmo, I., Bustos, M. M. F., Kaarby, K. M. E., Osnes, H., & Holter, K. (2008). Friluftsliv i barnehagen: på jakt etter mangfold og muligheter [Outdoor life in kindergarten: Searching for diversity and possibilities]. In A. M. Otterstad (Ed.), *Profesjonsutøvelse og mangfold. Fra utsikt til innsikt* [Professional practice and diversity. From a view to understanding] (pp. 279–294). Oslo: Universitetsforlaget.
- Kyttä, M. (2006). Environmental child-friendliness in the light of the Bullerby Model. In C. Spencer & M. Blades (Eds.), *Children and their environments: Learning, using and designing spaces* (pp. 141–158). Cambridge: Cambridge University Press.
- Little, H. (2010). Risk, challenge and safety in outdoor play: Pedagogical and regulatory tensions. *Asia-Pacific Journal of Research in Early Childhood Education*, 4(1), 3–24.
- Little, H., Sandseter, E. B. H., & Wyver, S. (in press). Early childhood teachers' beliefs about children's risky play in Australia and Norway. *Contemporary Issues in Early Childhood*.
- Little, H., & Wyver, S. (2008). Outdoor play: Does removing the risks reduce the benefits? *Australian Journal of Early Childhood*, 33(2), 33–40.
- Lysklett, O. B., & Emilsen, K. (2007). Hva kjennetegner menn i natur- og friluftsbarnehager, og hvorfor er det så mange menn i disse barnehagene? [What characterizes men in nature and outdoor kindergartens, and why are there so many men in these kindergartens?] In T. M. Guldal, G. Karlsen, G. Løkken, F. Rønning, & T. Steen-Olsen (Eds.), *FOU i Praksis 2006* (pp. 171–181). Trondheim: Tapir Akademiske Forlag.
- Lysklett, O. B., Emilsen, K., & Hagen, T. L. (2003). Hva kjennetegner natur- og friluftsbarnehager? [What characterizes nature and outdoor kindergartens?] *Barnehagefolk, Pedagogisk forum*, 4, 78–85.
- Moser, T., & Martinsen, M. (2010). The outdoor environment in Norwegian kindergartens as pedagogical space for toddlers' play, learning and development. *European Early Childhood Research Journal*, 18(4), 457–471.
- Nicolopoulou, A. (2010). The alarming disappearance of play from early childhood education. *Human Development*, 53(1), 1–4.
- Nilsen, R. D. (2006). Dyrene i skogen—Om kunnskap, barn og voksne i naturbarnehagen [The animals in the forest—about knowledge, children and adults in the nature kindergarten]. *Barn*, 1, 61–81.
- Norwegian Ministry of Education and Research. (2005). *Act no. 64 of June 2005 relating to Kindergartens (the Kindergarten Act)*. Oslo: NMER.

- Norwegian Ministry of Education and Research. (2006). *Framework plan for the content and tasks of kindergartens, issued 1 March*. Oslo: NMER.
- Organisation for Economic Co-operation and Development. (2011). *Enrolment in child care and preschools*. Retrieved August 19, 2011, from <http://www.oecd.org/dataoecd/46/13/37864698.pdf>
- Press, F., & Hayes, A. (2000). *OECD thematic review of early childhood education and care policy*. Canberra: Commonwealth Government of Australia.
- Productivity Commission. (2011). *Early child development workforce: Productivity Commission draft research report*. Canberra: Commonwealth of Australia.
- Quinlan, P., & Dyson, B. (2008). *Cognitive psychology*. Harlow, UK: Pearson.
- Sandseter, E. B. H. (2007). Categorizing risky play—How can we identify risk-taking in children's play? *European Early Childhood Education Research Journal*, 15(2), 237–252.
- Sandseter, E. B. H. (2009). Affordances for risky play in preschool—The importance of features in the play environment. *Early Childhood Education Journal*, 36(5), 439–446.
- Sandseter, E. B. H. (2010). *Scaryfunny. A qualitative study of risky play among preschool children* (Doctoral Thesis). Norwegian University of Science and Technology, Trondheim.
- Sandseter, E. B. H. (2012). Restrictive safety or unsafe freedom? Norwegian ECEC practitioners' perceptions and practices concerning children's risky play. *Childcare in Practice*, 18(1), 83–101.
- Smith, P. K. (2011). Children's play: Essential for development, surplus energy, or something in between? In M. Veisson, E. Hujala, P. K. Smith, M. Waniganayake, & E. Kikas (Eds.), *Global perspectives in early childhood education: Diversity, challenges and possibilities* (pp. 259–282). Frankfurt: Peter Lang.
- Soto, L. D., & Swadener, B. B. (2002). Toward liberatory early childhood theory, research and praxis: Decolonizing a field. *Contemporary Issues in Early Childhood*, 3(1), 38–66.
- Standards Australia. (2004). *Playground equipment*. AS 4685:2004. Sydney: Standards Australia.
- Statistics Norway. (2010). *Increase in number of kindergarten employees*. Retrieved January 18, 2012, from http://www.ssb.no/english/subjects/04/02/10/barnehager_en/
- Storli, R., & Hagen, T. L. (2010). Affordances in outdoor environments and children's physically active play in pre-school. *European Early Childhood Education Research Journal*, 18(4), 445–456.
- Thelen, E., & Bates, E. (2003). Connectionism and dynamic systems: Are they really different? *Developmental Science*, 6(4), 378–391.
- Thelen, E., & Smith, L. B. (1998). *A dynamic systems approach to the development of cognition and action* (3rd ed.). Cambridge, MA: MIT Press.
- Waller, T., Sandseter, E. B. S., Wyver, S., Årlemalm-Hagsér, E., & Maynard, T. (2010). The dynamics of early childhood spaces: Opportunities for outdoor play? *European Early Childhood Research Journal*, 8(4), 437–443.
- Woodrow, C. (2007). W(h)ither the early childhood teacher: Tensions for early childhood professional identity between the policy landscape and the politics of teacher regulation. *Contemporary Issues in Early Childhood*, 8(3), 233–243.
- Wyver, S., Bundy, A., Naughton, G., Tranter, P., Sandseter, E. B., & Ragan, J. (2010). Safe outdoor play for young children: Paradoxes and consequences. In S. Howard (Ed.), *Proceedings of the AARE International Education Research Conference*. AARE. Retrieved July 2012 from <http://www.aare.edu.au/10pap/2071WyverBundyNaughtonTranterSandseterRagen.pdf>
- Wyver, S., Tranter, P., Naughton, G., Little, H., Sandseter, E. B. H., & Bundy, A. (2010). Ten ways to restrict children's freedom to play: The problem of surplus safety. *Contemporary Issues in Early Childhood*, 11(3), 263–277.
- Yelland, N. (2011). Reconceptualising play and learning in the lives of young children. *Australasian Journal of Early Childhood*, 36(2), 4–12.