
New Directions: charting the paths for the role of sociocultural theory in early childhood education and curriculum

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ABSTRACT This article identifies the growing role of sociocultural theory as an informant to the early childhood curriculum. Beginning with a brief description of the more traditional Piagetian interpretation regarding development and its use in early childhood education and curricula such as DAP (Developmentally Appropriate Practice), the article identifies key theoretical arguments made against this view on the basis of ontological, methodological and/or epistemological precepts. The growing literature regarding the use of curriculum approaches to early childhood education based on the sociocultural explanations for development proposed by Vygotsky and Rogoff are identified. The article argues that the manner in which sociocultural theory is being utilised in early childhood education may be considered in terms of three main 'pathways', including the transformative, assimilated positivist and social-constructivist paths.

Introduction

Defining curriculum has the potential to present as a deceptively simple process where it may be considered the sum total of what is offered to students to be learned (Ross, 2000). However, the creation of curriculum is a human endeavour, and like all human endeavours involves the cultural values, beliefs, assumptions, theories and languages of its developers in its very construction. Defining curriculum therefore becomes a task of identifying not only course content, but also the particular cultural values and theoretical constructs on which it has been based. This idea, whilst daunting across most fields and levels of the educative process, is perhaps most challenging where it is concerned with the education of the very young. Here, where we are concerned with the early education of children, it is not necessarily sufficient to consider the

curriculum solely in terms of the culturally determined course content to be offered to students. Rather, consideration also needs to be given to the early *developing abilities* of the child to acquire the information, knowledge and language of his or her community. In other words, children participating in early childhood education are at a stage in their lives whereby the assumed knowledge acquisition abilities paired with content attainment in higher levels of education are still in the process of development. As Spodek & Saracho (1991) explained, 'what children are capable of learning is heavily dependent on their level of development' (p. 119).

It is for this reason that early childhood education and curriculum has traditionally been informed by the ideas arising from psychological theory and epistemological philosophy (Spodek & Brown, 1993). The focus in early childhood education and curriculum has therefore tended to emphasise the manner in which children are believed to develop in relation to arguments regarding the origins and construction of human knowledge. As Weber (1984) noted in her formative analysis regarding the early childhood curriculum, 'descriptions of how learning is to take place are supported by psychologically determined concepts of individual growth and learning and so psychological and philosophic understandings inform curriculum selection and building' (p. 5). Historically, the early childhood curriculum has been informed by views regarding early childhood development that have ranged from the romantic to the behaviourist. In more recent times, particularly during the twentieth and twenty-first centuries, the early childhood curriculum has centred on developmental views that have sought to explain *how* children develop, *how* knowledge is acquired, and therefore *how* early childhood education should most usefully (or perhaps we could say 'appropriately'?) proceed. During the course of these centuries, the cognitive constructivist view emerging from the work of Piaget and the sociocultural view emerging from Vygotsky's efforts have presented as the dominant explanations for human development and learning to be utilised in the formation of curriculum approaches for young children. In this article, each of these explanations is discussed in more detail, with the more contemporary sociocultural perspective identified as having carved a place for itself within early childhood education in terms of three main 'pathways'.

The Piagetian Influence and Developmentally Appropriate Practice

The application of Piaget's genetic epistemology to early childhood education has been generously documented and explored in the literature (for example, Kamii & Ewing, 1996; Devries & Kohlberg, 1987; Elkind, 1989), and now somewhat famously resides in its incarnation in the earliest version of the curriculum guidelines known as Developmentally Appropriate Practice or DAP (Bredekamp, 1987). The DAP curriculum guidelines suggested that early childhood education should provide young children with opportunities to

construct their own knowledge. This argument was based initially on Piaget's premise that knowledge acquisition involved the assimilation and accommodation of information arising from children's empirical experiences to their evolving schemas and representations of the external world. Where Piaget argued that assimilation and accommodation resulted in the development of increasingly complex mental abilities via a series of stages culminating in the adult achievement of formal operations, the DAP guidelines argued similarly that young children should be provided with learning experiences that targeted their current developmental abilities as defined by these same stages. Thus, the DAP curriculum guidelines argued that the most effective means of educating young children would be to ensure that early childhood educational *practice* was *appropriate* for their *development*. In effect, this meant that the DAP curriculum guidelines would allow knowledge about childhood development to be utilised in order to:

identify a range of appropriate behaviours, activities and materials for a specific age group ... which can then be used [*sic*] in conjunction with understanding about children's growth patterns, strengths, interests and experiences to design the most appropriate learning environment.
(Bredekamp, 1987, p. 3)

As a formalised set of guidelines regarding the education of young children, the earlier version of DAP served to present a formidable theoretical edifice based on largely academic descriptions of human intellectual development and knowledge acquisition (Edwards & Flee, 2003, p. 5). For Charlesworth, this achievement represented the defining of the basic elements of 'quality instructional practice with young children as no previous publication had', resulting in possibly 'the most influential document guiding the field of early childhood education' (Charlesworth, 1998, p. 274). However, emerging criticisms of the methodology employed by Piaget in order to develop his genetic epistemology began raising questions regarding the accuracy of the stages of intellectual development he described (Gelman & Baillargeon, 1983). Amongst the most notable of these criticisms was Donaldson's (1983) claim that children were capable of operating at higher levels of cognitive function than described by Piaget when tasks were more suited to their linguistic capabilities (Donaldson, 1983; see also McGarrigle & Donaldson, 1974). Other arguments were made, with Brainerd (1973), for example, suggesting that children's responses to tasks designed to test their levels of cognitive operation did not necessarily represent their levels of understanding as they were possibly constrained in their abilities to describe their understandings by the verbal response mode utilised by Piaget (Brainerd, 1973, p. 177).

Although other authors (Beilin, 1992; Lourenco & Machado, 1996) have sought to defend Piaget's work and his theoretical propositions, the criticisms levelled against his genetic epistemology came from more than the methodological quarter, with arguments against the very ontological perspective on which it was based also levelled against his theory. Here, the

postmodern movement, in which questions regarding the nature of knowledge and the manner in which it is produced, researched, disseminated and utilised in relation to early childhood education (Lubeck, 1996) operated as a means of questioning the supposed positivist assumptions underpinning the view of development emerging from Piaget's genetic epistemology. According to Silin (1987), the dominance of the Piagetian description regarding intellectual development in early childhood education served only to emphasise a positivist orientation towards knowledge construction and development over alternative perspectives:

To accept Piagetian epistemology as the basis for educational programming is to accept a particular conception of what is essential to human development and to success in adult life. This conception is most consistent with a highly rationalised, scientifically orientated culture. (Silin, 1987, p. 24)

This idea was later explored by both Kessler (1991) and Bloch (1992), who in separate and yet formative papers, argued that not only was the ontological basis on which developmental theory based questionable, but also that an overreliance on it as a curriculum informant (such as that arising from the 1987 version of DAP) emphasised a particular view of development over any other possible educative purpose or experience. In other words, Piaget's developmental theory had come to occupy a position of such theoretical importance in early childhood education that it became the accepted or assumed purpose for education itself. Acceptance of developmental theory as an informant to the early childhood curriculum came to represent the process whereby supporting children's development became the end aim of education. This, according to Kessler (1991) and Bloch (1992) was problematic in that it raised questions regarding whose development was represented by the very developmental theory considered necessary to the processes involved in practice. Arguing in general that the view of development informing early childhood education was articulated from a research perspective that included reference to primarily white middle-class and male populations, Kessler and Bloch reasoned that such a theoretical basis did not necessarily reflect the developmental experiences of children from alternative, but no less real, populations that differed according to gender, ethnicity or socio-economic status (Kessler, 1991, p. 142; Bloch, 1992, p. 18).

Others (Fleer, 1995a; Clyde, 1995; Smith, 1996; Beyer & Bloch, 1996) likewise continued to offer arguments against the use of the Piagetian description for development in early childhood education. The challenge to this theoretical perspective's dominance in early childhood education, in particular its presence in the 1987 version of DAP, was emphasised with the 1995 publication of *DAPcentrism: challenging developmentally appropriate practice* (Fleer, 1995b). Here, in an edited book critiquing the view of development held by the Piagetian description and its assumed relevance to early childhood education, questions were raised regarding the cultural appropriateness of

developmental theory for all children, in addition to the assumption that development preceded learning. The notion that knowledge was constructed by individual children as they engaged with the external world was also questioned, with the theoretical argument regarding intellectual development proposed by Vygotsky positioned as an alternative informing view for the early childhood curriculum (Fleer, 1995a, p. 13). Similar views were evident in the USA, with authors such as Jipson (1991) and Mallory & New (1994) emphasising the cultural basis of development and therefore the possible inappropriateness of a curriculum based entirely on developmental theory (Mallory & New, 1994, p. 2). These emerging arguments were later furthered by Dahlberg et al (1999), where it was suggested that existing conceptions of developmental theory proposed a particularly solitary and endogenous view of childhood and development that focused on the 'individual child, who irrespective of context, follow[ed] a standard sequence of biological stages that constitute[d] a path to full realisation or a ladder like progression to maturity (Dahlberg et al, 1999, p. 46). According to this view, the traditional acceptance of Piagetian theory as an informant in the early childhood curriculum failed to acknowledge the role of contextual and cultural influences in children's development and therefore resulted in the inadequate extension of developmental theory to the early childhood curriculum (Edwards & Fleer, 2003, p. 17). A more useful approach was believed to consider development in terms other than those determined by Piaget, whereby development ought to be viewed as 'a social construction, always contextualised in relation to time, place and culture, vary[ing] according to class, gender and other socio-economic conditions' (Dahlberg, et al, 1999, p. 49).

The Vygotskian Influence

It was here that Vygotsky's explanation for human development, embedded as it was in the socio-historical experiences of adults and children, gained increased acceptance as a theory that addressed many of the criticisms levelled at Piaget's genetic epistemology. Vygotsky's central tenet was that learning led the developmental process, with children acquiring (or learning) the knowledge practices of their host communities as they interacted with others. Accordingly, development was viewed as a process that occurred on two planes (the interpersonal and intrapersonal), and involved the acquisition on the child's behalf of the different knowledge practices and psychological tools (such as language) that characterised these same practices. The development of intellectual ability in the young child was therefore considered a function of social interaction contextualised according to the particular cultural setting in which it occurred. In this sense, the fundamental difference between Piaget and Vygotsky's explanations of development was that Vygotsky viewed social interaction as central to the developmental process, whereas Piaget had emphasised the child's exploratory behaviours in the external world as central to development (it should be acknowledged, however, that Piaget viewed

social interaction as a possible influence on development to that extent that social interactions provided opportunity for disequilibrium to be prompted).

Whilst Vygotsky's theory found a receptive audience amongst those authors questioning the assumed relevance of Piaget's developmentalism to early childhood education, perhaps its most important contribution has been the argument regarding the nature of development as a socially determined process. Essentially, this view of development has served to challenge the notion of a universal description for development, as Piaget suggested, by emphasising the role of culturally mediated social interactions in children's learning. In other words, the value Vygotsky placed on the interrelationship between development and the host community's informing sociocultural knowledge and practices meant that development had to be considered as intrinsically defined by the sociocultural context in which it occurred. Given this argument, it was not necessarily considered possible that a grand description for all human development could be described, meaning that Vygotsky's explanation represented a theoretical contribution to the fields of developmental psychology and early childhood education that described a 'contextualised rather than a universalistic theory of development' (John-Steiner & Mahn, 1996, p. 197). An outcome of this particular view of development has been the increased attention paid to the *contexts* in which young children's development occurs. Amongst the most significant of work to be conducted within this framework has been that by Rogoff (1984, 1990, 1998), who utilised Vygotsky's sociocultural theory as a prompt for the suggestion that all cognitive development is relative to the context in which it occurs and is actualised by children's participation in the context itself (with participation defined as children's active or observational activity in their communities as guided by their more capable peers or adults). This view of development, like Vygotsky's, argues that children's learning occurs as they interact with their social elders. However, for Rogoff, the contextual plane of development is also emphasised, with the community/institutional practices of the community viewed as being as instructive as children's social elders in assisting them to appropriate the knowledge practices of their host communities. Accordingly, development, unlike the somewhat universal description offered by Piaget, is defined by the community in which it occurs:

Depending on the circumstances, both immediate and societal, as well as the individual characteristics of the person, appropriate development may take many courses. This is not to say that development is aimless. Although chance plays an important role in the characteristics of the circumstances and of the person, the activity of the individuals and their social partners has purpose. Development involves *progress towards local goals and valued skills*. (Rogoff, 1990, pp. 56-57, emphasis added)

To this end, Rogoff (1998) argued that development occurred on three interacting planes of influence, including the intrapersonal (i.e. the individual child), interpersonal (interactions among social partners) and

community/institutional (contextual). This idea served to displace the notion of the individual child as the constructor of his/her own knowledge, with development and knowledge acquisition positioned instead as a function of community participation and interaction across each of the three identified planes of development (Rogoff, 1990, 1998).

Sociocultural Theory and the Three Paths of Curriculum Development

Sociocultural theory, particularly that defined by Vygotsky, was initially utilised in the early childhood literature as a theoretical rebuttal of the perceived dominance of Piagetian developmentalism, and as an answer to the primarily ontological and epistemological criticisms levelled against cognitive constructivism. However, the increased understanding regarding Vygotsky's sociocultural account for development, and to a lesser extent, the emergence of Rogoff's work, has resulted in the establishment of sociocultural theory as an early childhood educational theoretical informant in its own right. Despite its increased theoretical currency in relation to early childhood education, the role of sociocultural theory in early childhood education does not necessarily represent a straight and easily definable path. Rather, the various interpretations placed upon sociocultural theory, and therefore its implications for early education, have resulted in a number of readings of the theory and its likely manifestation in practice. To date, little conversation has occurred regarding these readings, the subtle differences between their theoretical allegiances and the consequent paths sociocultural theory has taken in discussions regarding the early childhood curriculum. However, this apparent lack of clarity regarding the role and use of sociocultural theory as an informant to the early childhood curriculum has been addressed with the initial identification of three sociocultural 'pathways' in early childhood education, the transformative, assimilated positivist and social-constructivist paths (Edwards, 2003; Edwards & Fler, 2003).

The Transformative Path

The first of these 'paths', identified by Edwards (2003) as the 'transformative' path, recognises Fler's (2002) adroit adaptation of Rogoff's sociocultural theory to the early childhood curriculum. Fler (2002), having argued that traditional Piagetian developmentalism failed to recognise the developmental needs and outcomes of all children, argued that the three planes of development identified by Rogoff could be extended logically to the early childhood curriculum. According to Fler's argument, the three planes of development identified by Rogoff could be utilised as a theoretical framework aimed at assisting early childhood educators and academics to shift from the individual child perspective to a more inclusive perspective encompassing

development for all children as it occurred for them according to *their* cultural experiences:

Rogoff's (1998) three research lenses provide a useful framework for conceptualising the teaching–learning process in early childhood education. As practitioners we can more usefully think about children and their learning by focussing our analysis on the learning context through the three lenses. This allows us to observe, analyse and plan from three perspectives. That is, we can consider use of a personal perspective for planning, an interpersonal perspective for planning and a community/institutional perspective for planning. (Fleer, 2002, p. 12)

Fleer's extension of Rogoff's sociocultural explanation of development for early childhood education was transformative to the extent that it spoke of altering the traditional focus on the individual child in early childhood education as the basis for curriculum planning and programming to focus on all three planes of the child's development. Fleer's call to examine and plan for children's needs across each of the developmental planes identified by Rogoff has enabled the possible development of curriculum that matches learning experiences to individual children's cultural contexts, as well as to the interactional social patterns that characterise learning in their particular cultural contexts as opposed to the dominant educational context. Fleer (2002) supported this supposition with research arising from an investigation into the literacy acquisition experiences of Indigenous Australian children (Fleer & Williams-Kennedy, 2001) whereby a consideration of the curriculum from the community/institutional plane of development revealed differing cultural values regarding the supposed superiority of 'active learning' in early childhood education:

Organising the learning environment so that children may use the home corner, the construction area, the collage trolley and the painting area, [is] built on an assumption that children learn by doing ... however, for some Indigenous Australian children, learning by observation without explanation is also very important. (Fleer, 2002, pp. 13-14)

In other words, a consideration of the early childhood curriculum from the sociocultural perspective (particularly via the appropriation of Rogoff's three planes of development) enables the cultural experiences that characterise and define children's development to serve as the basis for curriculum decision-making over the use of a universal developmental theory supposedly applicable to all children. Fleer's achievement in describing an alternative pathway through which sociocultural theory may be utilised in early childhood education should not be underestimated since it represents a theoretical springboard from which the issues arising from a postmodernist critique of developmental theory may be addressed. As Lubeck (1996) has noted, whilst the shift in emphasis from developmental to sociocultural theory has been liberating in a pedagogical sense, developmental theory has been 'so foundational to the field of early childhood education that erasing it would

seem to leave us in a mindless limbo in which everything is relative' (Lubeck, 1996, p. 158). The adaptation of Rogoff's theory of development to early childhood education via the theoretical framework proposed by Flear offers a new pathway through which this very limbo may be traversed.

However, in using the transformative pathway in this manner, it must be acknowledged simultaneously that both theoretical and practical implications are likely to arise as the path itself becomes more defined. For example, how will sociocultural theory be translated into practice? What form will sociocultural observations and planning take? And, at a theoretical level, how will the presence of this path interact with existing developmental orientations to curriculum and other forms of sociocultural theory? These questions, born as they are from within a consideration of the transformative pathway itself, are interesting in that they seem to address the very void suggested by the rejection of developmental theory and thus offer a more contemporary means of extending current conceptualisations of the early childhood curriculum.

The Assimilated Positivist Path

The second pathway the role of sociocultural theory in early childhood education appears to have carved in the area of curriculum has been identified as the 'assimilated positivist' view (Edwards, 2003). This particular perspective resides predominately in the revised edition of DAP (Bredekamp & Copple, 1997), which sought to address the criticisms levelled against the first version regarding the supposed suitability of Piagetian developmentalism as the basis for curriculum in early childhood education (for example, Mallory & New, 1994; Flear, 1995a). In recognition of the 'expanded knowledge base' (Bredekamp & Copple, 1997, p. 1) informing early childhood education, DAP was redefined in order to include reference to both developmental and sociocultural explanations for development (and consequent curriculum planning):

The rules of development are the same for all children, but social contexts shape children's development into different configurations. Early childhood teachers need to understand the influence of socio-cultural contexts on learning. (Bredekamp & Copple, 1997, p. 7)

In this version of DAP, the sociocultural description of development was positioned as an influence on children's development, rather than the reason for development. Described by Rogoff (1998) as the social influence approach, this interpretation of sociocultural theory served only to emphasise the role of the individual in constructing knowledge that may have been shaped through social interaction. This particular view is, in fact, anathema to a truly sociocultural perspective in which the sociocultural context itself is viewed as the crucible *for*, rather than influence *on* development:

The social influence approach uses the individual as the unit of analysis, and adds social interaction as an 'influence' on individual development,

treating the partner or their 'input' as an independent variable, and the later performance of the target individual as a dependent variable ... [the sociocultural view, however, argues that] individuals develop as they participate with others in shared endeavours that both constitute and are derived from community traditions. (Rogoff, 1998, pp. 686-687)

In this respect, the merging of both developmental and sociocultural theory in the updated version of DAP (Bredekamp & Copple, 1997) represented a view of development that was essentially positivist in nature despite its supposed assimilation with the ideas emerging from sociocultural theory. This position was evident in the revised guidelines' description regarding development and learning in which attempts to address both developmental and sociocultural explanations of development resulted in development being simultaneously described in Piagetian and Vygotskian terms:

Development and learning are dynamic processes requiring that adults understand the continuum [of development], observe children closely to match curriculum and teaching to children's emerging competencies, needs and interests, and then help them move forward by targeting educational experiences to the edge of children's changing capacities so as to challenge, but not frustrate them. (Bredekamp & Copple, 1997, p. 9)

In this explanation, the revised DAP guidelines described an approach to early childhood curriculum which maintained that development should be matched to children's learning experiences, with these same experiences then linked to the sociocultural argument that learning leads development itself. According to Lubeck (1998), this attempt to address criticisms levelled at the original DAP guidelines with reference to sociocultural arguments served only to result in a 'both/and' approach to curriculum in which developmentalism and sociocultural theory were considered equally valuable. This essentially served to assimilate the sociocultural explanation of development with the existing positivist interpretation regarding developmental theory, and was argued by Lubeck to result in the situation whereby the two explanations of development were presented as analogous:

The revised guidelines have been re-written to recognise the complexity and variability in human development and learning. At the same time, however, they retain many of the normative and universal features that characterised the initial version. Seen in this light, the 'both/and' approach itself serves to avoid or diminish conflict. The document now incorporates challenges and contradictions, making it seem impervious to criticism. (Lubeck, 1998, p. 280)

In this sense, the 1997 DAP guidelines, whilst heeding the arguments against Piagetian developmentalism and for sociocultural theory, have evolved in order to reflect the nature of continuing theoretical discussion and debate in the field. However, as noted by Lubeck (1998), the manner in which this has been achieved has not necessarily served to reconfigure the existing

developmental approach to curriculum. Rather, as Rogoff has argued with respect to the social influence approach to developmental theory, the reviewed DAP guidelines have tended instead to assimilate sociocultural descriptions of development into the existing and predominately positivist theoretical framework which saw appropriate practice defined as that which matched children's developmental progress. Reference to the social contexts in which children's development occurs and to their potential developmental abilities does not necessarily equate with a truly sociocultural explanation of development, particularly where this approach holds context to be the crucible and purpose for development itself.

The Social-Constructivist Path

The third path in which sociocultural descriptions of development and learning has been traced has been described as the 'social-constructivist' path (Edwards, 2003; Edwards & Fler, 2003). As a form of sociocultural theory made relevant to early childhood education, this particular path is most readily identifiable in the work emerging from the educational project conducted in the Reggio Emilia region of Italy. Here, the community desire to establish early learning experiences for young children that encourage a sense of community, a commitment to democracy and the development of critical thinking abilities has resulted in a form of pedagogy that draws on many established theories of development and learning, including those expressed by Piaget, Vygotsky, Bruner and Dewey. The pedagogical intent behind the Reggio Emilia programs has been described as utilising the reciprocal relationships that exist between children and their immediate/extended communities in order to initiate and support learning opportunities that promote development and children's understanding of particular concepts (Gandini, 1993; Nimmo, 1998). An important component of this intention is the process of documentation in which children and adults work together in order to document or display their learning via the use of images, recorded and transcribed conversations and other media. The 'work' documented by the participants in the Reggio Emilia programs arises from the investigations, or 'projects' conducted by the children into areas of conceptual concern, or interest, to them. As a result, the Reggio Emilia programs have been characterised by the belief that exploration, interaction and reflection are key elements of the learning process. As Malaguzzi (1993) explained, the 'curriculum' for these children therefore evolves from their conceptual curiosity within a cooperative learning framework:

Making plans, considering options, making cognitive reflections and symbolic representations and refining communication skills. Active exploration and creative reproduction by educators and children proceed without complete certainty but with a shared representation of the point of destination, the ultimate goal. (Malaguzzi, 1993, p. 9)

According to this view, children's learning is bound to their cognitive activity and the manner in which they themselves construct understanding by researching their projects. However, this same view is accompanied simultaneously by the belief that such cognitive activity is a shared social process among children and adults. It is here that the notion of a social-constructivist reading of sociocultural theory may be most readily identified, since the child and his/her interactions with conceptual material via the 'making of cognitive reflections and symbolic materials' are paired with the need to 'refine' communication skills and engage in 'active exploration' with adults and peers alike. In this reading, unlike the assimilated positivist version of sociocultural theory where the social interactions between the community and cultural participants are taken as an influence on development, social interaction is viewed instead as the mediator of development. However, unlike the transformative interpretation, children's cognitive activity is still positioned in terms reminiscent of Piagetian developmentalism.

The social-constructivist reading of sociocultural theory as it operates within the Reggio Emilia interpretation of pedagogy is one New (1998) touched on when she described the Reggio Emilia philosophy as 'a system of relationships' between children, adults, concepts and symbolic representations (New, 1998, p. 266). This system of relationships between ideas, children and their social-cultural partners may be considered representative of a view of early childhood education that echoes elements of developmental constructivism whilst emphasising simultaneously the social origins of learning and development (New, 1998, p. 277). As Malaguzzi (1993) stated, the Reggio Emilia programs represent an 'interactive-constructivist view of learning [accompanied by], intensive relations among all participants, the spirit of cooperation and attention to context' (p. 10).

Conclusion

The early childhood curriculum has been informed historically by theories of development and philosophical conceptions regarding the origins of knowledge. The massive influence Piaget's genetic epistemology held over early childhood education resulted in early arguments regarding the most appropriate means of educating young children, particularly as expressed in the earlier DAP curriculum guidelines (Bredekamp, 1987). Continued investigation into children's development and learning has seen an increased emphasis placed on the sociocultural nature of development, with work by Vygotsky (and later Rogoff) serving to further inform theoretical debate and discussion about early childhood curriculum. The nascent and somewhat emerging role for sociocultural theory in early childhood education and curriculum has yet to be played out fully. However, initial readings of this theory appear to be characterised by three main paths, in which the sociocultural argument itself is interpreted according to a particular perspective. The first of these, identified in this article as the transformative path, is representative of Fleer's (2002) attempt

to utilise the sociocultural explanation of learning as a true alternative to the criticisms raised against the more traditional cognitive developmental explanations employed as an informant to the early childhood curriculum in the past. The second path, identified as the assimilated positivist, represents a view of sociocultural theory located primarily in the DAP curriculum guidelines in which social interactions and children's cultural contexts are viewed as an influence, rather than cause, for development. The final path, described here as the social-constructivist path informing the Reggio Emilia project, represents a reading of sociocultural theory in which both social interactions and contexts are viewed as the mediators of development, whilst an emphasis on cognitive activity and conceptual construction is maintained.

The extent to which each of these paths is likely to become more worn is, like most paths, a matter of use. Whether each in turn is utilised as a means of describing the new directions in which sociocultural theory appears to be taking early childhood education and curriculum is, likewise, dependent upon use. However, a path, once traced or described, does not necessarily represent the best way forward for all those who travel a particular landscape. Early childhood education, and the articulation of theoretical perspectives to its practice and curriculum formation, is a landscape characterised by a terrain made difficult by the very human endeavour that characterises education. In such an environment, pathways, whether they be newly identified or worn from the feet of a thousand travellers, should always be chosen and examined with judicious care. This article, in charting the role of sociocultural theory in early childhood education and curriculum, offers the transformative, assimilated positivist and social-constructivist paths as those open for further discussion and examination as those involved in the education of young children continue to traverse the plains of learning and development.

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