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ABSTRACT

The concept of "learning disposition" provides a useful way of examining longer-term outcomes of quality early childhood programs and outlines characteristics of a learning orientation or disposition in early childhood. The learning disposition involves the tendency to want to do something, sensitivity to being alert to the appropriate occasion, and the actual ability. The social discourses witnessed by children provide them with the setting to develop theories about themselves as learners with particular learning dispositions. Dispositions are linked to children trying out various "possible selves" which are linked to social discourse and add a longer time frame. Five discourses parallel the curriculum aims for early childhood in New Zealand: well-being, belonging, contribution, communication, and exploration. The first discourse entails having an informed and thoughtful sense of what it is to be a 4-year-old; to be sometimes a grown-up and sometimes to reveal one's childishness. The second involves belonging and taking a responsible view of rules and routines. The third discourse involves sometimes being a friend and sometimes not, to question the constraints of friendship and gender, to question stereotypes about gender, ethnicity, and disability. The fourth discourse is to combine being heard with listening or watching. The fifth discourse is to explore and experiment on the understanding that sometimes one will get it wrong. (Includes the experiences of two children to illustrate the dispositions in action in an early childhood program. Contains approximately 60 references.) (KDFB)

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# DISPOSITIONS AS AN OUTCOME FOR EARLY CHILDHOOD CURRICULUM

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This paper argues that the notion of *learning disposition* provides a useful way of looking at the longer-term outcomes of quality early childhood programmes. When Katz (1988) answered the question 'what should young children be doing?' she listed four categories of learning: knowledge skills dispositions and feelings. She defines dispositions as follows (p.30):

Dispositions are a very different type of learning from skills and knowledge. They can be thought of as habits of mind, tendencies to respond to situations in certain ways. Curiosity is a disposition. It's not a skill, and it's not a piece of knowledge. It's a tendency to respond to your experience in a certain way. Friendliness is a disposition. Unfriendliness is a disposition. Creativity is perhaps a set of dispositions. Being bossy or a bully are dispositions. Not all dispositions are desirable. Think about the difference between having reading skills and having the disposition to be a reader, or having writing skills in contrast to having the disposition to be a writer.

The research of Dweck and her colleagues (Dweck and Bempechat, 1983; Dweck, 1986; Dweck and Leggett, 1988; Heyman Dweck and Cain, 1992; Erdley and Dweck, 1993) provide strong support for disposition or 'orientation' as an aim in education. Dweck's research on children's beliefs about learning and about the self as a learner makes connections with dispositions to approach learning in different ways. Helpless-prone children viewed difficult problems as challenges to be avoided and as tests that would reveal their low ability; children who believed that ability is a fixed quality were very vulnerable to criticism or praise by significant others in their lives, even as early as five years of age.

Sylva (1994a, p.93) refers to Dweck's work when she calls for an early childhood curriculum that aims for learning orientation rather than performance orientation. A review by Sylva (Sylva, 1994b p.162) of the influences of school, and early childhood programmes, on children's successful development concludes that

'pre-school experiences put in motion a virtuous cycle of learning orientation at school entry, followed by teacher recognition and expectation, followed by pupil self concept, school commitment and finally success in adult life'

She cites the U.S. longitudinal comparative study of High/Scope (an early childhood programme) "graduates" to age 27 and quotes Schweinhart and Weikart (1993, p.4) as they speculate on the

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mechanisms which brought about lasting change in disadvantaged children when initial academic gains quickly 'washed out':

The essential process connecting early childhood experience to patterns of improved success in school and the community seemed to be the development of habits, traits, and dispositions that allowed the child to interact positively with other people and with tasks. This process was based neither on permanently improved intellectual performance nor on academic knowledge.

In this paper I outline three characteristics of learning orientation or disposition in early childhood. Examples of disposition in action, in two centres, follow.

## DISPOSITIONS IN EARLY CHILDHOOD

(i) *Dispositions include not only inclination, but also ability and sensitivity to occasion.*

The Katz definition of disposition separates it out from knowledge skills and feelings. She separates out the inclination, or the habit of mind. But I think knowledge skills and feelings are part of the disposition to respond to experience in a certain way. Having the disposition to be a reader is enhanced when skills are increased, because 'being a reader' or 'being a writer' has taken on a clearer, possible, form (Dyson, 1989; Cochran-Smith, 1984).

Perkins et al (1993) have outlined a dispositional theory of thinking in which they add abilities and 'sensitivity to occasion' to inclination. Their thinking dispositions therefore have three parts. They are to do with being 'ready, willing, and able' (Claxton, 1995), or with 'will and skill' (Sylva, 1994b p. 163). Inclination refers to the tendency to want to do something, sensitivity to being alert to the appropriate occasion, and ability to the actual ability to do it. 'Dispositions are grounded in belief systems, values and attitudes as much as in cognitive structure' (Perkins et al 1993 p.16). This seems a more holistic, connected, way to include knowledge skills and feelings to the definition of disposition. As Bruner (1990, p.71) says of language development at an early age: 'the child is not learning simply what to say but how, where, to whom, and under what circumstances'.

Perkins et al describe seven broad dispositions or tendencies that benefit good thinking (for older children): to be broad and adventurous, toward sustained intellectual curiosity, to clarify and seek understanding, to be playful and strategic, to be intellectually careful, to seek and evaluate reasons, to be metacognitive.

(ii) *Dispositions are about learning located in a social context*

We are not just interested in thinking, an individual process of intellectual exploration; we are interested in learning. Although, as Perkins (1992 p.8) says, 'Learning is a consequence of thinking', if we define learning as the negotiation and appropriation of knowledge in a social context (Vygotsky, 1978; Rogoff, 1991; Belenky, 1991; Ratner and Stettner, 1991; Thayer-Bacon, 1993; Guisinger and Blatt, 1994), then I think the dispositions will be closely tied to the social context. The four- and the five-year-old's definition of a learner and of how they see themselves as approaching learning are influenced by the other people around them, their values, and the languages available to explicitly and implicitly

convey those values. In what Thayer-Bacon calls a paradigm of relational epistemology, it is appropriate to focus on social 'scripts' and discourses (Davies and Harré, 1990; Harré and Gillett, 1994). The social discourses available to young children provide them with definitions of appropriate behaviour, linked to social categories of inclusion and exclusion. Davies' research has highlighted the significance of discourses to do with gender and friendship (Davies, 1989, 1991, 1992, 1993; Fernie et al, 1993); I think there are other powerful discourses as well. Discovering and constructing the boundaries of discourses, and positioning oneself in terms of the categories, provides the setting for four-year-olds to develop enduring theories about themselves as capable learners and to develop positive learning dispositions . Or, by contrast, to develop enduring theories about themselves as poor learners and to develop defensive learning dispositions. The characteristic of a disposition as a *commitment* (Tishman et al 1993) comes from locating the dispositions in domains of social discourse or discursive practices of great moment to four-year-olds.

I have suggested elsewhere that a culturally based account of the development of dispositions might start with social purpose (Carr, 1992, 1994). Perkins (1991) p. 7 :

All too often, we teach skills and concepts disconnected from the purposes, the models, and the arguments that make them meaningful, that weave them into a larger tapestry of flexible and functional knowledge.

Genishi (1992 p.3) quotes an American preservice teacher (Pratt, 1948, p.15) writing in 1948:

You taught children to dance like butterflies, when you knew they would much rather roar like lions, because lions are hard to discipline and butterflies aren't. All of it was designed to prepare children for the long years of discipline ahead. Kindergarten got them ready to be bamboozled by the first grade.

Any curriculum will be a 'negotiated settlement' between lions and butterflies, between the curriculum of the early childhood centre and the discourses that children bring from home and learn from peers. The values may conflict: for example whether you value the product or the process. The usual view of early childhood educators is to pay attention to and value the process, for example concentrating and trying hard, as children work and play (Bredenkamp, 1988). Delpit (1991), in a discussion of cultural context and curriculum points out however that "in the real world, the product matters", and for many children the product is of considerable interest.

Meg, Linda, and Freda have been drawing; Freda and Linda have finished.

Linda (to Meg): What are you doing?

Meg (drawing): Doing my Mum

Linda (referring to fingers that Meg has just drawn on one of the arms):

Not five legs. Two legs. I did two legs

Meg: No those're her arms

Linda: Funny. That looks like a scarecrow

Freda: Yeah. Does

Linda: Looks like a girl scarecrow

Meg: No, it's my mummy

Freda: No, it hasn't got any neck or

Linda: And doesn't look like it has a tummy

Meg: That's the tummy

Linda: No, that's the legs, see

Meg: No, those are done my Mum

[CA8/2/95 Transcript A2.36-4.54].

The discourse here is only marginally about how to draw a person, of course. It's about friendship and associated power games: on this occasion, Linda and Freda are establishing a temporary friendship by 'ganging up' on Meg. And they site this discourse within another one where the product matters: being right. Linda and Freda express a belief that there is a right way to draw a person, and Meg has got it wrong. It is an axiom in life as well as in the kindergarten that there is never help around when you most need it: Meg needed support for her (perhaps rapidly eroding) view that you can draw your own Mum in any way you like, and in the last line her grammar completely disintegrates in her anxiety. Early results from observations of four-year-olds in early childhood centres<sup>1</sup> indicate that for these four-year-olds the discourses of interest are: being a girl and being a friend, certainly, but also being four, being a kindy kid or a creche kid, being heard, and being right (Lubeck, 1985; Fernie, 1988; Fernie et al, 1993; Carr, 1994).

*(iii) Dispositions are linked to the idea of 'possible selves'*

Being a reader and being a writer are possible selves for those children starting out on the educational path laid out for them by the school culture. Possible selves can be linked closely to social discourse, but they add a longer time frame. They refer to my picture of how I might or could be (Markus and Nurius, 1986; Cross and Marcus, 1994). They are to do with whether I think achievement doors have closed already. A disposition to be a friend, or to be perceived as a girl, and my definitions of being a friend and being a girl, are not just to do with finding a comfortable position in the early childhood centre here and now, they have a wider reference to how you might be when you grow up. Children's sociodramatic play illustrates this well. The scripts usually include powerful grown-ups in dramas set outside the centre. It was unusual when one day a child at 'crêche' said "Let's play crêche" (her friend said "I don't know how to play that game"). But Dweck's research illustrates it as well too: children's beliefs about whether ability can change or not have views about their possible selves that influence their approach to learning.

For a four-year-old, the child's possible self in the eyes of his or her caregivers can significantly chart the direction of learning. We know that caregivers' and teachers' expectations are very influential (Bredekamp and Shepard, 1989; Blanchard et al., 1989; Sylva, 1994b). In the following observation Louise's concern not to be in the wrong is associated with an image of self that is defined by gender.

Louise, a four-year-old in a child care centre, was, uncharacteristically, digging in the dirt with two of the boys. Usually she did not play with boys, and excluded them from her play. ("No boys here" she said sternly, and typically, one day to one of the two-year-olds when he ventured into the family corner). On this occasion, an adult called out to the children "Boys: don't dig there", and Louise scuttled off: the boys regrouped nearby to continue their play, but she didn't rejoin them.

[Field notes CB3/5/95]

Early childhood is a time when children can experiment with a range of possible selves and positionings. They can try out being the Dad, the big sister, or the baby. They can thereby develop dispositions to be 'multiply positioned' in various domains, to keep an open mind, especially about their ability to tackle new and difficult tasks.

## DISPOSITIONS AND CURRICULUM DEVELOPMENT

In New Zealand five aims of early childhood curriculum are set out in Te Whāriki, the national curriculum guidelines (Ministry of Education, 1993; Carr and May, 1993). The aims are well-being, belonging, contribution, communication, and exploration. They can also be seen as a broad framework of dispositions: to be well, to belong, to contribute, to communicate, and to explore.

I have argued, above, that the dispositions will be found in significant social discourses and listed the discourses I have observed: being four (vs being a baby), belonging here (being a 'kindy kid' or a crèche kid' vs not knowing what to do next), being a friend (vs being no-one's friend), being a girl (for the girls, vs being perceived as a boy, and vice versa for the boys), being heard (vs being invisible), and being right (vs being wrong). These discourses parallel the curriculum aims and provide the basis for the following tentative framework of dispositions. Experiencing multiple positions along these dimensions, developing a range of possible selves, is one way to interpret the aims of early childhood:

- **to have an informed and thoughtful sense of what it is to be a four-year-old; to be sometimes a grown-up and sometimes to reveal your childishness**

*abilities:* children often see physical ability (hand stands and head rolls, and writing their name, feature frequently) as indicating that they are a big four-year-old, or nearly five. Each culture has its own list of abilities that four- and five-year-olds should have mastered (Edwards and Gandini, 1989). It is worthwhile remembering that none of them are etched in cross-cultural stone (Bredekamp and Shepard, 1989).

*sensitivity to occasion:* it is always interesting to see 'grown-up' four-year-olds turn into babies at the end of a tiring session; sociodramatic play allows them to create occasions when it is acceptable to be both grown-up and childish.

*inclination:* many children feel they cannot allow themselves to be babyish; many that they cannot be independent. Probably the underlying condition for children to be inclined to try out alternatives within all of the dispositions (even if they have the ability) is that they feel safe and respected and cared for (Thayer-Bacon, 1993; Noblit, 1993; Noddings, 1995) in this environment.

- **to belong here (to understand and become an expert on the rules and routines, and then to be able to make informed and responsible judgements about how and when and whether to make up rules of your own; to be responsible)**

*abilities:* in this domain, the ability to see the centre and its programme as a whole, an ecological viewpoint, is an umbrella ability that covers skills to do with detecting implicit rules, and imagining how things might be different.

*sensitivity to occasion:* children are learning to differentiate immutable rules from minor transgressions (Harris, 1989), and that the rules in different places are different, often for very good reason.

*inclination:* Dweck's research is pertinent here: some children are inclined to make up rules or to see them as problematic, some are not. This aspect is also to do with feeling safe in this



environment; young children are not inclined to risk the unexpected if they don't feel that someone is looking after them.

- **to sometimes be a friend and sometimes not, to question the constraints of friendship and gender, to question stereotypes about gender and ethnicity and disability.**

*abilities:* children are learning a range of social abilities in early childhood (Katz and McClennan, 1991; Smith et al 1993; Hay, 1994), and the umbrella ability is to do with being able to see another person's viewpoint (Astington et al 1988; Dunn, 1991; Wellman, 1990)

*sensitivity to occasion:* children are learning about alternative viewpoints, gaining knowledge about other people, and making up their minds about the trade-offs if they stand up for their rights or opt for flexibility

*inclination:* for some children challenging stereotypes is too great a risk to the 'now' self. However, the work of Davies (1989, 1993) and Derman-Sparks (1991) and others indicates that this is nevertheless an appropriate disposition to aim for in an early childhood setting.

One reason for conducting the longitudinal aspect of the study [from pre-school to primary] was to examine the stability of children's positioning within the discourses through which they speak themselves, and are spoken, into existence. Through access to new discourses or through shifts in positioning within the old, I was interested to find changes in interpretation of their genderedness and of the possibilities they saw being open to them as males and females (Davies, 1993 p.3)

- **to combine being heard with listening or watching, to coordinate ones own voice with that of another**

*ability:* language ability, and communication abilities feature strongly here. Not confined to oral language, other modes of expression are important too.

*sensitivity to occasion:* very young children are learning alternative strategies to calling out for attention, and they are more able to wait and watch. Some children always wait for permission to be heard, and may miss out in a busy centre. For some children, like Meg in the earlier drawing transcript, a selection of modes of expression remain the province of home: I seldom saw Meg draw at the centre. I talked to a four-year-old about what he was good at at kindergarten.

O: So what sort of things are you good at doing here? (six months earlier he had replied rather mournfully that he was good at nothing)

C: Well, climbing the rope ladder, and um stopping people from fighting.

O: Anything else?

C: The only other good thing is getting people off John (his friend; John agrees)  
(I ask what he is good at doing at home)

C: Um. Sometimes I get the paints out. If I'm allowed to.

O: You don't paint here?

C: Oh no. I don't do any cos I'm usually too busy.

(CAA170895. Field notes)

*inclination:* opportunities to coordinate one's voice with that of another, in discourses of meaning and satisfaction, can create inclinations to communicate ideas knowledge and feelings; if non-verbal forms of expression are valued, they can become everyday expectations.

- **to explore and experiment on the understanding that sometimes you will get it wrong.**

*ability:* in a range of areas, children will be accumulating considerable abilities that allow them not to lose face when their ability fails them.

*sensitivity to occasion:* a cultural viewpoint (e.g. Delpit, 1988) reminds us that for many children in many situations it is often not appropriate to risk getting things wrong: an early childhood programme will provide a range of occasions, including open-ended situations where it *is* satisfying and permissible to take a guess, try out ideas that might fail, and decide that you don't know.

*inclination* once again, Dweck has much to say about this: the inclination to risk being wrong, in appropriate circumstances, is an important component of good learning. As with the belonging disposition, a prerequisite for being inclined to explore here is feeling safe.

### **JASON AND ROSIE: THREE DISPOSITIONS IN ACTION**

The following examples of experiences for two of the children, Jason and Rosie, (each in a different centre) illustrate the value of early childhood experiences when the match between the children's discourses and the curriculum on offer appears to have been a very good one. They illustrate, I think, three of the dispositions in action. The examples show how early childhood programmes can protect and elaborate the young child's 'predispositions' (to belong, to communicate, and to experiment) into robust dispositions of value for learning. Encouraging robust learning dispositions may need a considerable amount of intervention.

#### **DISPOSITION 1**

*To belong, to take a responsible view of rules and routines*

Jason is a regular attender at morning kindergarten. He is about to go to school, and sees himself as a tutor to the new children in the ways of the programme. This means understanding the purposes of the adults at the kindergarten, and then passing on the routines and the knowledge. In this programme, the purposes as Jason sees them are for children to be independent, and technically competent at using scissors, writing their names, and screen printing (a skill introduced to children when they enter the morning programme). Jason tutors or provides help for the others, even with skills he has barely mastered himself (writing his name for instance is very difficult for him, and he usually only writes the first few letters).

##### **Episode 1**

An adult has just reminded Jason how to make a screen print (cutting a shape, writing his name on the back of the paper for screening, and then making the print). Ben, younger, arrives at the construction table and asks Jason to do a screen print 'for me'. The product is of minimal interest, and there is no experimenting here: the goal is mastering the routine and the technical skills associated with it. Note that, in comment 25, Ben in turn becomes the expert, passing on instructions.

1. Ben:        You do it for me
2. Jason:     Draw the shape you want, and then



3. Ben: You do it for me?
4. Jason: What kind of shape do you want?
5. Ben: Ah, a circle
6. Jason: Have to go round, oh right (He draws a circle shape for Ben with a crayon, and cuts it out) (to an adult) How do you write Ben's name? (She writes the name on a piece of paper for him and he starts to copy it.)
7. Jason (to nearby child): I'm writing that name
8. Adult (giving verbal encouragement): That's B-e.... ..a 'j', that's a straight line down with a hook at the bottom...*[an equivalent comment: Benjamin is not the real name]* you've got an 'a' in your name, haven't you (She explains the convention of calling people by shortened versions of their names, using her own name as an example. They continue to discuss the shape and sound of the letters as Jason writes them, and other children join in. Rachel: Like a Mmm. Adult: This is called an N. My lips don't come together when I say that one)
9. Jason: (making comments about the letters in his own name).I've got a squiggly s
10. Adult: I have too  
[Kay comes to complain:
11. Kay: Somebody wants to chase us
12. Adult: O-oh. What do you need to do about that?
13. Kay: I don't know
14. Jason: Run quickly and get away. (Gesturing to his name writing) I done it.
15. Adult: Is there anything you can say?
16. Kay: Go away!
17. Jason: I trip, I trip 'em up. I trip 'em up and run.
18. Adult: There's another, there's something else you can do instead. You can tell them. You can tell them to stop it and go away. That's another way.
19. Jason: Yep  
Kay goes off]
20. Adult: O.K. What were we up to?...Look, look! Whose name is that?
21. Jason: Benjamin!
22. Ben: Now, what're you going to do?
23. Jason: Wait and see, Ben. Ha, ha! Now.  
(He takes the named paper and the cut out circle and places them in the frame, lowers the hinged screen and spoons paint on. Gives the scraper to Ben.)  
You got to squeezer *[a useful invented word]* it back and forward. You do that. I'm gonna do it after there  
(A girl comes over and asks Ben if she can do one.)
24. Ben: Cut little pieces out
25. Jason: Yep that's enough Ben, that's enough. That's enough, that's enough. Nah, don't do it on the newspaper Ben, don't do it on the newspaper. Now. Going to see what it looks like (He lifts the screen, and removes the circle, puts it into the rubbish).  
Yeah! Ah, just put it over on one of those racks, I'll be there in a minute.

[CA8/2/95. Transcript A8.07 - 26.38]

Typically, several events are going on during this 18 minute sequence.

(i) Jason is being a responsible teacher, showing Ben how to master the sequence of tasks that will complete a screen print. Neither of the boys discuss the representational purpose of a print, its potential in representing the positive as a negative, or the final product. They are interested in it simply as a sequence of interestingly complicated steps that you do here, a routine. Jason encourages Ben to think of the outcome as a mystery when, comment 23, he says "Wait and see" in reply to Ben's request for more information about the process. In comment 24, Ben in turn has become the instructor when a girl comes over to ask if she too can do one: "Cut little pieces out" he instructs. The ability, the sensitivity to occasion, and the inclination to pass the knowledge on from expert 'kindy kid' to novice, are all apparent. On many other occasions, Jason has acted as the teacher, giving advice to other children about

technical matters: how to make a box with four sides for instance, and how to attach wings to a four-year-old person so they don't fall off [Field notes CA16/2/95].

(ii) When Kay comes to complain to the teacher about being chased, Jason (comments 14 and 17) offers creative and alternative ideas about appropriate responses. The teacher appears to value his contributing even though she rejects the alternative he offers ("trip 'em up", a suggestion put forward in a light-hearted and joking tone). She is encouraging the children to develop an inclination to approach social conflicts experimentally (comment 18 "That's another way"), a disposition recommended by Katz (Katz and McLellan, 1991, p.42).

(iii) Jason needs, and gets, considerable help with one of the skills seen in this centre as important for nearly-fives: writing a name. And from his enthusiasm (comment 21) and persistence it seems that this task has great meaning. He is just learning to write his own name, and has written his sister's name on occasion when he has made things for her. This is an ability that contributes to several dispositions: it is part of this kindergarten routine, it is a link between Jason and others that he cares about, and it is seen by Jason (and probably his family) as an important milestone for a four-year-old.

## DISPOSITION 2

*to coordinate one's own voice with that of another.*

Rosie has just turned four. She is full time at a child care centre, and has become close friends with other children, also full time or regular attenders, and about the same age, who provide play partners and opportunities for negotiation. The routines and props in the centre allow plenty of time and opportunity for elaborated sociodramatic play, and the centre provides a programme where events and plans are as often as possible negotiated, and reasons for rules given.

### Episode 2. Negotiating play.

Rosie and Anna are 'fishing' with sticks and ribbons, inside. They have a box of 'bait' (pieces of jigsaw from the table nearby) beside them. It is 9.20 a.m.

1. Rosie: We can fish from our home cos our home is by the river
2. Anna: We're going home now
3. Rosie: No, our home is here  
(Dan comes over and treads on the fishing lines, and Anna shouts at him)
4. Rosie (to Dan): If you're my friend I'll let you come to my house and play with my cat  
Cassins
5. Dan: He might scratch me
6. Rosie: Only if you're mean to him

Adult (A3) asks Rosie to return the jigsaw pieces they have put into a cardboard box as 'bait' and explains that the other children can't complete their jigsaws. She suggests shells as an alternative, and they replace the jigsaw pieces with shells.

[Field notes CB14/6/95]

Rosie keeps a close eye on the script (comment 3) and when Dan is a nuisance she strikes a bargain ("I'll let you come to my house"). When he raises an objection, her reply includes a reason ("if you're mean to him"). This is a conversation in which Rosie and Dan have co-constructed two layers of imagined condition: if you're my friend you can play with my cat, and if you're not mean to my cat she

will not scratch you. Later during the same episode the adult suggests an alternative play prop, and she too gives a reason.

Episode 3. Negotiating the play script. Interestingly, Rosie also tries to script Anna's thoughts ('You say to yourself, I love Belle eh?'), seeing these as central to the story-line. Even Jeanie, who is not yet four, is willing to negotiate a turn with the doll. The children are outside, it is 10.20 a.m.

Anna: You be Belle and I'll be the Beast  
Rosie: You say to yourself, I love Belle, eh?  
(A toddler comes over to tell Rosie about a helicopter overhead)  
Rosie: Go away  
(Anna makes beast-like noises and talks about killing).  
Rosie: Who're you going to kill? (Anna doesn't reply)  
Jeanie comes over and wants the doll baby that Rosie has. Rosie won't give it to her.  
Jeanie: When you go home, you give it to me O.K.? (No reply from Rosie)  
[Field notes CB14/6/95]

Episode 4. Rosie finally gives way on part of the story-line, and once again an adult (a different adult from in Episode 1) gives explanations. It is the same day as for Episode 3, but the script has changed. Anna is the puppy and Rosie is Dad.

Rosie: Thanks Puppy. I'm the Dad  
(They hang up the camera on the clothes hangers that are part of outside equipment for dress-up play)  
Rosie: I'm going to take a photo of you  
(Anna asks Adult, A2, to take the swings down. A2 explains why she can't.)  
A2: There aren't enough adults at the moment. I know it's really hard to understand, but if the swings are down I have to watch them, and I need to watch the whole area.  
Anna (to Rosie): That's my camera  
Rosie: No cos I had it  
Anna: But 'member you bought it for me  
Rosie: But 'member I bought it  
Anna: No you didn't! (crossly) Cos I buyed it  
Rosie: I buyed it  
Anna: No, you didn't buy it. I'll take this away if you didn't buy it (she snatches an item of clothing that Rosie has been taking on and off)  
Rosie: O.K. I didn't buy it.  
[Field notes CB14/6/95]

Episode 5: Acknowledging another's interest to try to persuade.

Rosie is playing Captain Hook and Peter Pan, and Louise (another four-year-old) arrives. Louise's favourite role is a mermaid. Rosie tries to persuade Louise to join in.

Rosie: There are mermaids in it  
Louise: No there aren't  
Rosie: Yes there are  
Louise: No there aren't  
Rosie (putting her face up close to Louise's): Yes there are. Cos I got the video and I saw mermaids on it  
Louise: I didn't see it  
(Louise is not convinced and sets herself up as a mermaid in a nearby enclosure. Rosie moves from one story to the other.)  
[Field notes CB22/5/95]

Episode 6. Negotiating the direction of play; a third staff person, indicating that pretend play and imagination is valued, has joined in on the pretend 'Pizza Hut' play with Rosie and other children. Rosie has made her a pretend pizza and poured her some pretend lemonade. 8.45 a.m., inside, Louise arrives.

Louise: I'll be the Mum O.K.?  
Rosie: No, we're at the Pizza Hut. (Gives adult an empty plate) Want chocolate on this? We took our pizzas home eh?

Adult: Did we remember to pay for our pizzas? (Rosie nods) How much was it?  
 Louise: Two dollars  
 Adult: That was cheap, two dollars each  
 Louise: You have to give me two dollars  
 Rosie: No. Let me say something. We took the pizza home to our place. Do you know. We took the pizza to our place and the icecream too and guess what I say to you. We're not at the Pizza Hut, we're at home.

[Field notes CB5/5/95]

In all these transcripts, Rosie is practising her negotiating and communicating abilities. Other children see her as someone who negotiates, so they are encouraged to try it out too (Jeanie in Episode 3), and she knows when to give in (to Anna in Episode 4).

To negotiate and control her story-lines, Rosie struggles with language skills at the top end of her range: she strings sequential ideas, provides reasons and conditions, describes imaginative events, and discusses thought. She is developing a repertoire of topics that she can draw on: she is, for instance, intensely interested in what is scary and safe, real and pretend. Her pretend play, her drawing, and her conversations all reflect these jointly constructed and increasingly elaborated funds of knowledge. At singing time, one of Rosie's favourite song routines is 'We're going on a Lion Hunt, I'm not scared', which she joins in with great gusto, helps decide on the script, and jumps into the adult's lap in mock terror. On another occasion, she announces that she is a cowboy. An adult asks if she is not a cowgirl? She replies that she is a cowboy, mean to monsters and nice to people [Field notes, CB8/5/95]. When three of the children decide to take over the observer's notebook to draw in it, Rosie draws a mixture of friendly and scary animals, commenting to the observer about whether they are fierce or friendly, and that although the dinosaur has pointy bits, they're not sharp.[Field notes CB25/5/95]. Here is a typical example of Rosie telling a story.

#### Episode 7

10.10 a.m. Rosie is sitting having morning tea and chatting to the observer about what she likes doing, and what she will be able to do when she's older (drink tea and eat fish) and what she likes doing now that's really difficult (head rolls, and hopping). The observer knows that she is particularly interested in drawing, and in colour.

Observer: What about your drawing? What do you draw that's difficult?  
 Rosie: Dragons  
 Observer: Mmm. Is it the tongue and the eyes that's difficult?  
 Rosie: Dragons look like this (mimes a dragon face) and they have prickles down their back and claws on their feet. And you know the cupboard where the television is (gestures, whispers)? There's a dragon in there, behind the television.  
 Observer: Oh, no. And does it peep out?  
 Rosie: (whispering) Oh no. It's not a good one. It eats you.  
 Observer: (whispering) Eats children and grown-ups?  
 Rosie: Yep. Eats children and grown-ups.  
 Observer: What colour is it?  
 Rosie: Green and orange. It has an orange tongue and green skin.  
 (A toddler comes over).  
 Observer: Mm hm.  
 (We nod to each other in tacit agreement not to frighten the little ones).

[Field notes CB5/5/95]

### DISPOSITION 3

#### *To explore and experiment*

Jason's interest in materials and what you can make with them is encouraged in the kindergarten by the variety of materials, the permission to combine them in any way, and technical assistance from the adults. During a month of observation at the kindergarten, at the end of which Jason turned five and left to go to school, he was particularly interested in exploring ways to express movement. On one morning he (i) makes a kite by attaching a tail and a long string to a box and then runs about outside trailing it behind him, (ii) puts dabs of paint onto painting paper on an easel and then blows the paint around the paper with a straw, commenting on the tracks it makes, and (iii) makes a hat with paper strips attached to the top like a fringe, so that when he walks about the strips bounce up and down like a Len Lye construction (Field notes CA16/2/95). He is interested in marble painting, where the 'painting' results from the movement of a painted marble over paper in the base of a cardboard box, and the following episode illustrates his disposition to invent (as well as his disposition, described earlier, to help others).

#### Episode 8

Jason decides to do a marble painting. He elicits the help of the observer to look for the marbling box, which we can't find. Jason: 'I could just get another box!'

He cuts the side and then the end flap off a muesli bar box. Now he has a tray with one side cut off. He tucks some paper into one end, spoons in the painted marble, and rolls it about. The marble rolls onto the table. He controls the marble by pushing it around with the spoon, instead of tilting the box. Then he tilts the box again, catching the marble with his hand. He explains the problem to the observer: "It needs one 'up there'" (another side to the tray), and he curls the paper insert up to form a fourth side and a curved edge for the marble to roll up onto and back down. He plays with this for some time, controlling the trail of paint that the marble leaves as it rolls.

Zara comes and wants to make a marble box. She consults Jason, who gives her instructions. She chooses a large box, of thick cardboard, difficult to cut with the scissors. Jason advises her not to cut off the end flap.

[Field notes CA15/2/95]

Jason's struggles are not so much with verbal communication: his is the language of commentary and advice (to himself and others). He is however exploring his movement theme by combining materials and technology in unusually vivid ways to make a range of artifacts. He is accumulating a fund of useful knowledge about movement and how to represent it, as well as about what 'stuff' does.

### EXPERIENCES AND DISPOSITIONS

Perhaps we can think of a disposition as the peak of an iceberg. Below a robust disposition are complex funds of knowledge and a wide range of useful skills, providing a rich source ability sensitivity to occasion and inclination. The dispositions will not be robust without the knowledge and the skills. But the sum of the knowledge and the skills does not equate with the inclination. Cullen (1991) describes learning strategies that children developed at pre-school, and later they drew on this repertoire at school.

The knowledge and skill *and* the inclination transferred to the new setting. She argues for the opportunities that a play-based programme provides to allow children to practise these strategies.

Robust dispositions will develop from experiences where

- (i) children feel safe to explore possible selves: 'secure attachments, revolving around positive affect, are related to children's greater attention, patience, and persistence' (Ratner and Stettner, 1991 p.8).
- (ii) knowledge and skill are harnessed to meaning. The enterprises connect with social discourses and topics of interest to the child.
- (iii) children can decide whether or not to use their skills. In other words, children have a chance to practise connecting ability and inclination to sensitivity to occasion.
- (iv) children can decide what to do next. There are opportunities for children to explore multiple positions and a range of possible selves, to experiment with the uncertain.

We can outline four guidelines for adults working in early childhood with dispositions in mind (the first three are described by Tishman et al in their analysis of teaching thinking dispositions as enculturation): (a) provide examples or models of the disposition (b) encourage and orchestrate child-child and adult-child interactions involving the disposition, (c) directly teach the disposition and (d) value the disposition, so that chance remarks and attention provide implicit affirmation and support.

Underlying the dispositions are the decisions that the four-year-olds are making about themselves and their abilities in this their (usually) first educational setting away from home (Donaldson et al, 1983; Gardner, 1991). The culture of the early childhood centre is a significant shaper of these decisions (Barell, 1991; Fernie, 1988; Fernie et al, 1993). Jason knows how and when to take responsibility for the routines and the rules, and he enjoys doing it; he also has a disposition to experiment and explore. He sees himself as a teacher and an explorer. Rosie is gaining experience in the give and take of negotiating script and play, experiences that are a source of fun and satisfaction and complex communication. She sees herself as a collaborative story-writer with an eye for the scary. They are both learning to make up their own minds, to enjoy and to seek out the unexpected in a safe and supportive environment. In short, they are becoming good learners.

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<sup>1</sup>The supporting data in this paper is part of a current research project on assessing four-year-olds' experiences in early childhood programmes. The project will finally link assessment to the new New Zealand early childhood curriculum guidelines (Ministry of Education, 1993). In the first phase of this project, participant observation, children were observed in a kindergarten and a child care centre over a period of five weeks each. The kindergarten provides a sessional morning programme for 45 children aged four years: most of these children have previously spent six to nine months in an afternoon

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programme, three afternoons a week. The child care centre provides an all-day programme; the four-year-olds are part of a group of about twenty-five children aged from two to four years. Almost all of the children from each centre will start school on their fifth birthday. In the kindergarten setting the programme was observed every day for five weeks; field notes were supported by tape-recording and video-recording in the one place: the construction area where children used everyday technology - scissors, staplers, glue, cellotape, paint - to make things of their own choosing. In the child care centre the five full-time four-year-olds were observed. Observations have been analysed as episodes, defined by the participants and the discourse.



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