

Review of Childcare and the Development of Children
Aged 0-3: Research Evidence, and Implications for Out-of-Home Provision

Supporting a Young Child's Needs for Care and Affection, Shared Meaning and a Social Place

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Contents

SECTION A -- INTRODUCTION TO THE PROJECT	5
SECTION B -- RESEARCH FINDINGS ON EARLY EXPERIENCE: THE INFANT'S ACTIVE SOCIABILITY AND LEARNING IN COMPANY	
B.1 Infants Are Born Sociable -- Needing Maternal Care; Seeking Company and 'Conversation'	6
B.2 Affectionate Relationships and Intimate Play Support Self-Assurance and Enjoyment of Learning in Early Weeks.	7
B.3 A Growing Body Expands Experience, The Sense of Play, Interest in Objects, and a Cooperative Social Temperament.	8
B.4 Infants Test Relationships and Make Friends, Expressing Individuality. Sociability Soon Extends to Other Infants, Who Become Playmates.	10
B.5 Learning Meanings, Sharing Tasks and Understanding Speech Come Together As Serious Occupations. Being 'Clever' Shows Self-And-Other-Awareness -- A One-Year-Old Is Also Performer, Or a Clown.	11
B.6 Between 9 Months and 2 Years Infants Vocalise and Gesture for Many Purposes. Language-In-Play Defines Objects and Actions in Familiar and Responsive Company -- With Family and with Other Children.	13
B.7 Toddlers Learn with Emotion, Developing Emotionally-Charged Relationships to Parents and Others. They Discover About Themselves, and Differences in Person and Behaviour That Matter in Society.	15
B.8 Imagination and Narrative Memory Expand the Child's World with 'Human Sense' and 'Common Sense'. Families and Cultures Give Different Roles, Support and Training.	17
B.9 Talking and Thinking with Confidence About Objects, Actions and Tasks. Making Symbols for Sharable Ideas, Images of Action and Memories. Creating Art. Joining Culture.	19
B.10 Sharing Others' Experiences and Feelings Makes Company Enjoyable and Instructive, and Overcomes Isolation and Withdrawal. Relationships Set the Stage for Social Behaviour, Moral Attitudes and Adjustments of Personality.	20
B.11 Imitation, Role Play and Interpersonal Jokes of Toddlers Are Complex. Friendships May Last, and Help Development of Knowledge and Understanding. Success Depends on Relationships, Learned Narratives and Roles -- An 'Internal Working Model' of a Proud and Happy Self.	22

SECTION C -- THE YOUNG CHILD'S NEEDS IN A WIDER WORLD:
DEVELOPMENT IN OUT-OF-HOME CARE

C.1	Regulating the Conflicting Needs of Adults, Society and Young Children.	25
C.2	A Child Makes Different Attachments to Mother and Father, to Childcare Staff, and to Other Children.	26
C.3	The Effects of Out-Of-Home Care Vary, Depending on the Quality of Care and the Age, Temperaments, and Individual Backgrounds of Children.	28
C.4	Development at Different Ages and the Experience and Effects of Daycare.	30
C.5	Relations Between Peers Become Lively and Important at the End of Infancy.	33
C.6	Boys and Girls Differ in Responses to Care, and Adults Communicate with Them Differently. Differences of Temperament and in the Behaviour of Boys and Girls in Caregroups Indicate That Children Must Be Respected as Individuals	34
C.7	The Relation of Early Child Care to Cognitive and Language Development Has Been Researched, Principally in the US -- The Findings are Inconclusive.	36
C.8	Studies in Other Cultures.	37
C.9	The Daycare Experience is for Parents, Too.	38
C.10	Parents' Experience Can Benefit from Consultation with Caregivers.	39
C.11	Keeping a Bond Between Family and Child Care Group. Caring for Differences and Family Problems	40
C.12	Warm Relationships are Both a Product and a Source of Benefits in Quality Childcare Groups.	41
C.13	Institutional Philosophy and Belief in the Child's Fundamental Interests.	42
C.14	Behaviour and Special Skills of Staff in Childcare.	43
C.15	Staff Training and Codes of Practice.	44

SECTION D -- INDIVIDUALITY: YOUNG CHILDREN ARE NOT ALL
THE SAME, AND SOME HAVE SPECIAL NEEDS

D.1	Helping Children with Disabilities and Behaviour Problems. Emotional Disorders and Anxiety Affecting Toddler's Relationships and Learning Can Be Relieved By Supportive Communication and Free Play.	48
D.2	Temperament is Both a Characteristic of the Individual Child, and a Response to the Social Context.	50
D.3	Language Related Problems Can Affect Emotional Health and Learning.	51

D.4	Blind Infants and Toddlers May Respond Well to Supportive Communication and Develop Normal Self-Awareness and Language.	51
D.5	Autism Affects Acting, Feeling, Knowing, Thinking, and Relating to People.	52
D.6	ADHD, Autism and Mental Retardation May Be Confused.	53
D.7	Deafness May Be Overcome by Language in Another Mode.	54
D.8	Down's Syndrome Leads to a Different Path for Development.	55
D.9	Prematurity is Often Linked to Mental Retardation That Responds to Sensitive Care and Stimulation.	55
SECTION E -- DIFFICULT RELATIONSHIPS AND HARD ENVIRONMENTS		
E.1	Maternal Depression and Training to Overcome Its Effects on Infants and Toddlers. Applications to Support the Emotions of Care Staff.	57
E.2	Styles of Parenting, Attachment and Children's Misbehaviour.	59
E.3	Interventions for Problems of Early Childhood: For Children, Parents and Caregivers.	60
E.4	Optimal Provision, and Risks of Care	61
E.5	Integration of Children with Special Needs: Play with Peers and Mothers' Views.	61
SECTION F – CONCLUSIONS AND RECOMMENDATIONS		63
REFERENCES		
SECTION B		69
SECTION C		86
SECTION D		91
SECTION E		95
WEBSITES CONSULTED		98
APPENDIX – EFFECTIVE DEVELOPMENT OF OUT OF HOME CARE		99

SUPPORTING A YOUNG CHILD'S NEEDS

FOR CARE AND AFFECTION, SHARED MEANING AND A SOCIAL PLACE

SECTION A --INTRODUCTION TO THE PROJECT

Remit: To review research on care, communication and learning with children under 3, and its development in relation to varieties and qualities of provision for child-care.

Policy Context: The 'ChildCare Strategy' concentrates on offering parents a choice of affordable out-of-home provision, assistance and care for their children, if and when they require such provision or assistance.

Purpose of Review: To provide up to date information to help develop and advise policy decisions regarding provision of care for children aged 0 --3.

Domains of Research Examined: We have searched literature in the fields of Child Psychology, Family Sociology, Child and Family Health, Early Education and Social Anthropology, and the rapidly growing sources of data on the experiences of children in various care environments, and their effects on development.

Scientific Context: Our review incorporates the last 30 years of intensive research by psychologists on the development of communication and thinking in infants and toddlers, which has radically transformed scientific awareness of the motives and talents in a newborn infant, and of age-related changes in early childhood. It is evident that problems arise either if the child has difficulties perceiving and responding to other persons' expressions, or if the principal companions are unsympathetic, negative and unhelpful. In some cases problems persist through childhood and into adult life, affecting parenting of the next generation.

Infants seek intimate support not only for their physical comfort and well being, and not just for emotional regulation, but also for extending their skills and knowledge of the world and their thinking in company of more competent companions who offer to aid them in their efforts to master and discover. They provide a source of affection, pleasure, interest and joy in accomplishment shared that stimulates and revitalises families and communities. We have conducted the review in the belief that proper care of children that fully meets their needs will automatically have benefits for all the persons involved, and for society at large

Method: We present the review in sections -- on **Development of Infants and Toddlers**, on **Development In Out-Of-Home Care** on **Children's Individualities and Different Needs**, and on **Difficult Relationships and Hard Environments**.

A complete list of **Publications and Websites** consulted is provided.

Recommendations: Our **Conclusions** are presented in relation to the above sections, with **Recommendations for Provision and Standards of Child Care** that we conclude will meet the needs of parents and children in Scotland, and have benefits for the community and nation.

SECTION B -- RESEARCH FINDINGS ON EARLY EXPERIENCE
THE INFANT'S ACTIVE SOCIABILITY AND LEARNING IN COMPANY

This section describes normal changes and individual differences in children's behaviour, communication and thinking in years 1 to 3 in the home. It traces processes by which infants and toddlers form attachments and social relations, and how they explore and excite parents and siblings to share the experiences of play and artistic expression, acquire conventional ways of communicating, including language, perceive the meaning of others' actions, and regulate emotions and moral relationships.

YEAR ONE:

THE INFANT'S WORLD: AWARENESS OF AFFECTIONATE OTHERS; SHARING PURPOSES,
EMOTIONS AND EXPERIENCE; BUILDING A CONFIDENT SELF

B.1 Infants Are Born Sociable --Needing Intimate Parental Care; Seeking Company and 'Conversation'.

- *Newborn infants try to communicate with other persons and are sensitive to their expressions, receiving emotional regulation from 'mothering'.*

A baby can learn a preference for the mother's voice before being born, hearing the sound in her body (DeCasper and Fifer, 1980; DeCasper and Carstens, 1981; Fifer and Moon, 1995; Hepper, et al., 1993). Maternal holding and rocking, caresses and rhythmic touches, voice tones and face with eye-contact, as well as breast feeding, help newborns maintain a physiological state of well-being and comfort (Blass, 1996, 1999; Brazelton, et al., 1975; Hofer, 1990; McKenna and Mosko, 1994; Zeifman et al., 1996; Winnicott, 1987). They also lead to mutual interest in communication and speech (Aitken and Trevarthen, 1997; Condon and Sander, 1974; Dehaene-Lambertz, et al., 2001). Newborns listen, and turn their heads to pick up the tones and expressive quality of voices and music (Custodero et al. 2002; Trevarthen and Malloch, 2002), and they can distinguish sounds of speech in different languages, apparently attending to the interpersonal and emotional message (Brazelton and Cramer, 1991; Brazelton, 1993; Cooper and Aslin, 1990; Mehler and Bertoncini, 1979; Nittrouer, 2001; Prechtl, 2001). They can both imitate and intentionally provoke imitations of mouth and tongue movements, hand gestures and voice sounds (Butterworth, 1999; Field, et al., 1983; Heimann, 2001; Kugiumutzakis, 1999; Meltzoff and Moore, 1983; Nagy and Molnár, 1994), taking turns in imitation with expressions of interest, excitement and pleasure (Malloch, 1999; Trevarthen, 1993; Trevarthen, et al., 1999). Newborns also look at faces and can learn their mother's face by 12 hours of age (Bushnell, et al., 1989; Field, et al., 1984; Pascalis, et al., 1995). Other persons, such as the father or a sibling, can be recognised, too, but there is an innate preference for the pitch of a female voice. The way an affectionate mother speaks is a particularly strong message for the infant (DeCasper and Fifer, 1980; Fifer and Moon, 1995; Hepper, et al., 1993).

Stressed premature and low birth weight newborns, whose bodies are often in pain, are calmed in the hospital ICU by quiet speech and touch, and by music or song (Custodero et al., 2002), and this experience helps to increased weight gain and earlier hospital discharge (Spiker, et al., 1993). Fluctuating needs for sleep and nourishment are demanding early in life, but in awake periods, a calm-alert infant is highly responsive to human talk for its own sake (Murray and Andrews, 2000; St James-Roberts and Plewis, 1996; Stern, 1985/2000; Trevarthen, 1997; Trevarthen and Aitken, 2001).

- *People become more expressive of feelings and interest when they talk to a young infant, and by 2 months, infants and caregivers make rhythmic 'protoconversations'.*

Parents, excited by an infant's sounds and gestures, respond instinctively with lively affectionate behaviours called 'intuitive parenting' (Papousek, M., 1996). In 'motherese' talk, parents, other adults and older children use rhythms and melodies of speech and gesture that are exaggerated and slowed, and the voice is soft and playful or 'flirtatious' with regular modulations of pitch (Cruttenden, 1994; Fassbender, 1996; Fernald, 1992a, b; Werker and McLeod, 1989; Trevarthen and Malloch, 2002). All expressive movements are directed to the infant's attention, and even though a newborn's gaze is not sharply focused, eye-to-eye contact is held. Infants prefer motherese speech from the first month (Fernald, 1989; Pegg, et al., 1992). Three-week-old infants know their mother's voice only if it has normal rhythm and intonation (Kahana-Kalman and Walker-Andrews, 2001). These preferred features of structure, rhythm, melody and tempo of a mother's talk apply across languages, and they are found in mothers' songs to infants in different cultures (Burnham, 1998; Cooper and Aslin, 1990; Fernald, 1989; Papousek, Papousek and Symmes, 1991; Thanavisnuth and Luksaneeyanawin, 1998). Their 'musicality' helps the infant's emotions and attention, making learning easier, encouraging enthusiasm for activity (Custodero et al., 2002; Kitamura and Burnham, 1998; Malloch, 1999; Murray and Trevarthen, 1986; Stern, 1993; Trevarthen, 1999; Trevarthen and Malloch, 2002). Adult-adult speech is generally more restrained in emotion, rapid and 'informative'. Expressive or emotive speech is used whenever persons of any age are engaged in shared activity with heightened excitement and affection. 'Intuitive parenting' creates a partnership of interpersonal motivations with a young child (Bråten, 1988a; Widmayer and Field, 1980). It fosters friendship and 'cultural learning' from early infancy.

Parent and infant look at each other's faces, answering to body movements, voice sounds and hand expressions, taking turns (Bateson, 1979; Fogel and Hannan, 1985; Murray and Andrews, 2000; Papousek and Bornstein, 1992; Stern, 1974; Tronick, et al., 1980; Weinberg and Tronick, 1994). They achieve mutual 'attunement' of motivation by mirroring the rhythms and patterns of each other's expressions (Beebe, et al., 1985; Feldstein, et al., 1993; Jaffe, et al., 2001; Nadel, et al., 1999a; Stack and Arnold, 1998). Later this search for communication will enable adult and child to share coded information, as in language (Bruner, 1995; Rochat and Striano, 1999; Stern, 1985/2000; Trevarthen, 1979, 1986; Trevarthen and Marwick, 1986). That is, the behaviour foreshadows conversation with 'information' and 'meaning'. A six-week-old can remember an expression offered by a person on a previous day and intentionally use it as an imitation to provoke joint experience with a different adult. This 'deferred' imitation apparently seeks to identify and maintain a relationship, and to mark and recall shared experiences (Meltzoff and Moore, 2001).

B.2 Affectionate Relationships and Intimate Play Support Self-Assurance and Enjoyment of Learning in Early Weeks.

- *Infants and adults form special emotional attachment relationships and 'mutual interest'.*

The identity of a partner in protoconversation, who they are, matters -- being with a familiar person, who is usually the mother but may be a consistent and responsive maternal substitute, helps a young infant follow that person's emotions and interests, and to express their own (Emde, 1992; Fernald, 1993; Hains, et al., 1994; Posner and Rothbart, 1998;

Reddy, 2000; Sullivan and Horowitz, 1983; Tronick, 1989; Uzgiris, 1984, 1991). Adult and infant are actively trying to be aware of each other's intention to share experience (Fogel, 1993; Gergeley and Watson, 1999; Legerstee, 1992; Muir and Hains, 1999; Trevarthen, 1980, 2001). As the habits and temperaments of familiar partners are learned, so too does the infant's 'sense of self', or confidence in 'self-with-other' relationships (Brazelton, 1993; de Weerth and van Geert, 2000; Feldman, et al., 1999; Gratier, 1999; Stern, 1995, 1999; Stern, et al., 1985). Babies remember both who they are, and who shares with them (Meltzoff and Moore, 2001; Sander, 1997a, b). They form different friendships with different people, and they experience strong emotions of attachment (Bowlby, 1958; Reddy, et al., 1997).

- *Disruption of contact with the caregiver causes distress, and loss of interest.*

Studies in which the mother's communication is experimentally interrupted so that it is unresponsive and 'non-contingent' or 'unfitting' to the infant's behaviour record the infant making signs of protest, avoidance and distress (D'Entremont, 1994; Hains and Muir, 1996; Murray and Trevarthen, 1985; Nadel et al., 1999a; Tronick, et al., 1978; Weinberg and Tronick, 1996). They prove that both infant and parent expect to be supported, refuting the belief that the infant is making 'random' expressions of state, that adults act 'as if' the infant is communicating and that this gradually teaches the infant how to communicate.

Parental 'affect-mirroring' or 'social biofeedback', reflecting the baby's emotion displays, is believed to be necessary for the development of emotional self-awareness and control in infancy, and to function as a mediating mechanism in therapy for a distressed or unwell child (Posner and Rothbart, 1998; Watson, 1996; Winnicott, 1987). Different parent 'mirroring styles' are expected to affect development of personality and temperament in children (Fernald, 1993; Kaplan, et al., 1999).

An intimate and affectionate relationship is one in which emotions are shared freely and strongly, including the lively emotions of curiosity and humour in play. If there is lack of intimacy, if the mother is too tired and depressed or worried to care for her infant, this causes the infant to protest and then withdraw (Bettes 1988; Biglow, 1999; Bråten, 1998a; Field, 1992; Murray and Cooper, 1997; Papousek and Papousek, 1997; Robb, 1999; Tronick and Cohn, 1989; Tronick and Field, 1986; Tronick and Weinberg, 1997). A chronically withdrawn infant is a sign that life in his or her family is stressed (Breznitz and Sherman, 1987; Dawson, et al., 1992; Fraiberg, 1980). This is true from the first months, but attachment relationships become more discriminating and marked by stronger emotional expressions of preference or aversion towards the end of the first year (see below).

B.3 A Growing Body Expands Experience, The Sense of 'Musicality' in Play, Interest in Objects, and a Cooperative Social Temperament.

- *From three months, babies share 'musicality' –the rhythms and expressive tones of voice, dancing body movements and gestures. They hear musical sounds well, move to music, and join in action games and baby songs with companions, matching vocalisations.*

Experiments on infants ability to distinguish sounds of musical instruments or differences in the rhythm and prosody of speech and song prove that the human ear is capable of hearing features of timing, harmony and intonation with fine discrimination, and that infants can quickly learn simple, repeating forms of musical or poetic 'narrative' (Baruch and Drake 1997; Clarkson, et al., 1988; Fridman, 1980; Papousek, H., 1996; Rock, et al., 1999; Custodero et al., 2002). Babies move to music from birth, and may engage with the rhythm of a parent's speech by both vocal and gestural replies (Papousek, M., 1996; Tønberg and Hauge, 1996; Trainor and Zacharias 1998; Trehub, 1990; Trevarthen and Malloch, 2002). These responses attest to the importance of sensitivity to dynamic expressions of intimate feeling in communication for development of the infant's contact with the world. Play in action games and in response to baby songs exercises the infant's sense of fun and expectancy in social negotiation, and prepares the way for joint volition, shared experience and collaborative learning (Bruner and Sherwood, 1975; Custodero et al., 2002; Trainor, 1996; Trehub, Unyk, et al., 1997; Trevarthen and Marwick, 1986; Trevarthen, 1999, 2002; Trevarthen and Malloch, 2002).

- *A four-month-old infant is conscious of his or her body gaining strength, and enjoys exploring the sensations and effects of body play, as well as handling objects -- seeing, hearing and feeling what can be done with them. Person-Person-Object games develop.*

Infants develop 'body awareness' from birth (Gibson, 1993). They explore sensations of moving and new experiences of self-contact (Bahrack and Watson, 1985). They are also aware of the outside world from the start and explore self-in-environment experience -- looking, tracking, listening and touching (Aslin and Hunt, 2001; Birch, et al., 1982; Held, 1985; Hood, 1995; Papousek, 1967; Piaget and Inhelder, 1969; Sireteanu, 2001). With development of body control comes manipulative investigation of objects (Baillargeon, 1993; Lacerda, et al, 2001; Piaget, 1954; Piaget and Inhelder, 1969; Spelke, 1991; von Hofsten, 2001).

In early months, play in Person-Person games is with voice, touching, face expressions and moving the baby's body (Poulin-Dubois, et al., 1996). As infants find they can coordinate reach and grasp movements and develop more elaborate purposes and curiosity after 4 months, they are fascinated with moving objects and visual displays, becoming more interested in their non-social surroundings and learning how to use things (Bremner, et al, 1997; Butterworth and Simion, 1998; Mandler and McDonough, 1994; Rovee-Collier and Gerhardstein, 1997). Four-month olds look less at a familiar companion's eyes, preferring to see where they are and what they can grab (Richards, 2001; Ruff and Rothbart, 1996), then eye-contact and smiling increase again after 6 months. These developments affect adults' play with social/functional toys. Person-Person-Object games, or 'triadic' play with 'toys' begin and become increasingly complex (Trevarthen and Hubley, 1978). The fun they stimulate makes friendships stronger.

- *Games are part of relationships, and part of learning how to communicate about oneself, and share ideas.*

Interactions with infants in games and jokes play with expectations and moods. The infant gains a 'self-conscious' social individuality, with a temperament -- more or less bold or timid, outgoing or pensive, excitable or calm -- that responds sensitively to how other people behave (Adamson and Russell, 1999; Derryberry and Rothbart, 1997; Reddy, et

al., 1997). Skills learned in games with familiar companions are displayed with pride or shyness, depending on who the partner is (Draghi-Lorenz, et al., 2001; Tarkka, et al., 2000; Trevarthen, 1986, 1988, 1990). Infants and parents enter into a more boisterous game playing engagement with songs, rhymes, and expressive jokes after the baby is a few months old, and favourite games and 'tricks' become established (Bruner and Sherwood, 1975; Hubley and Trevarthen, 1979; Trevarthen, 1986, 1988, 1990, 2002; Trevarthen and Hubley, 1978; Trevarthen and Marwick 1986; Yarrow, et al., 1984). As with younger infants, the moods of a parent's song, soothing or playful, reflect changes in infant motivation, and can both communicate emotion and influence the infants emotion (Derryberry and Rothbart, 1997; Yarrow, et al., 1984) and focus of attention on self or on outside events (Reddy, et al., 1997; Trevarthen and Hubley, 1978; Trevarthen and Marwick 1986).

Expressive displays, including variants of 'standard' or spontaneous expressions, such as 'fake' cries, smiles, coughs, and looks of sadness or anger, become partly detached and can be the 'object' of communication, as in 'teasing' and 'clowning' or 'showing off' (Nakano and Kanaya, 1993; Reddy, 1991; Trevarthen, 1990, 2002). In this way expressive game playing or 'acting up' with others helps infants and their companions to follow each other's 'pretend' state of mind (Adamson and Russell, 1999; Bruner and Sherwood, 1975; Trevarthen, 1990). Games with 'mimetic' or 'play acting' expression and musicality, in addition to giving everyone pleasure and strengthening relationships, stimulate conceptual development or imagination, and personal identity (Dissanayake, 2000; Trevarthen, 2002; Trevarthen and Malloch, 2002).

B.4 Infants Test Relationships and Make Friends, Expressing Individuality. Sociability Soon Extends to Other Infants, Who Become Playmates.

- *'Feeling good' with others is important, and friendship for family contrasts with wariness of strangers. Relationships of trust and sharing are different; with mothers and fathers, brothers and sisters, grandmothers and grandfathers, uncles and aunts, and people outside the family.*

The infant at around 6 months, as well as recognising emotions in others and exhibiting 'emotional referencing', shows 'complex basic emotions' of pride and shame, exhibiting a new self-consciousness and social 'identity' (Draghi-Lorenz, et al., 2001; Emde, et al, 1991; Fonagy and Target, 1997; Murray and Andrews, 2000; Selby and Sylvester-Bradley, 2002; Stern, 1990; Tomasello, 1993; Trevarthen, 1986, 1990, 1993; Trevarthen, et al., 1981; Tronick, 1989). Babies are different, and they behave differently with different persons (Belsky, et al., 1984; Pruett, 1998; Rheingold and Eckerman, 1973; Tronick and Cohn, 1989; Weinberg, et al., 1999). By 7 months, infants become markedly more wary of persons who are unfamiliar and whose expressive behaviour does not demonstrate the 'right' shared actions and expectations (Rijt-Plooij and Plooij, 1993; Rothbart, 1994; Sroufe, 1996; Tronick and Cohn, 1989). Strangers are 'inspected' before they are accepted in play and imitation, and may be responded to in a friendly way, seeking communication, not only with expressions of worry, sadness or fear (Rheingold and Eckerman, 1973; Trevarthen, 2002). Infants act as if they care whom the person is that is offering company and entertainment (Ainsworth, et al., 1978; Dunn, 1994; Izard, et al., 1991; Lamb, 1979; Main, 1991; Stern, 1995), and try to test mutual trust and understanding (Selby and Sylvester-Bradley, 2002; Trevarthen, 1986, 1990, 1993).

Infants develop attachment and companionship with significant others in addition to parents,

including siblings and grandparents (Bailey, 1994; Fiamenghi, 1997; Pruett, 1998; Selby and Sylvester-Bradley, 2002; Trevarthen, et al., 1999). When infant has opportunity to engage regularly with another person and build up a happy relationship with joint expectations, a strong attachment and special ways of sharing interests and actions will grow (Dore, 1983; Dunn, 1994; Fonagy and Target, 1997; Goldsmith and Rogoff, 1997; Hobson, 1993, 2002; Jaffe et al., 2001; Klinnert, et al., 1983; Reddy, 1991; Stern, 1990, 1995; Trevarthen and Aitken, 2001; Trevarthen, 1980, 2001, 2002), but there must be mutual attunement, shared affect and shared focus between them (Beebe and Lachman, 2002; Bråten, 1998a; Cooper and Murray, 1997; Field, 1998; Fraiberg, 1980; Goldsmith and Rogoff, 1997; Izard, et al., 1991; Kitamura and Burnham, 1998; Lewis and Granic, 2000; Murray, et al., 2001; Papousek and Papousek, 1997; Radke-Yarrow, 1998; Rothbart, 1994; Smith and Pederson, 1988; Stern, 1985/2000; Stern, et al., 1985; Tarkka, et al., 2000; Tronick, 1989; Tronick and Weinberg, 1997). The level of interpersonal sensitivity and involvement will affect the quality of the relationship (Ainsworth, et al., 1978; Belsky, et al., 1984; Dore, 1983; Fonagy, et al., 1994; Main, 1991; Schore, 1994; Tronick and Weinberg, 1997).

At one year toddlers' sociability is stronger, or more confident (Rothbart, 1994; Sroufe, 1996; Tomasello, 1993). The child now has several relationships of significant companionship, has interpersonal purposes in communication and understands the interests and purposes of others, easily sharing experiences and making 'jokes' (Dunn, 1994; Pruett, 1998; Reddy, 1991; Trevarthen and Aitken, 2001; Trevarthen, 1986, 1990, 2002).

'Deferred imitation', repeating something picked up before, is used both to practice learned behaviours, and to make contact and test relationships with different people (Meltzoff, 1985, 1995; Meltzoff and Moore, 2001; Nadel et al., 1999b; Trevarthen, 1986, 1990; Uzgiris, 1984, 1991). Mis-matching the child's motives by 'unexpected' behaviour, of a non-familiar adult or other child, may still be confusing and upsetting at one year (Goldsmith and Rogoff, 1997). On the other hand, a stranger may prove to be more sensitive to the child's initiatives in play than the mother is, and less 'coercive', gain stronger participation from a 9-month-old (Martins, 2003). Marwick and Trevarthen (in preparation) propose that 'concordant intersubjectivity' or pleasurable trust is essential to a child's learning at full potential, and to infants and toddlers exploring new relationships and developing strong companionship and a sense of pride in knowing (Trevarthen, 2001, 2002; Trevarthen and Malloch, 2002).

- *Infants have different personalities and ways of learning. Girls and boys are different, and others know they are.*

Some infants are bold and lively; others are placid and observant, timid, or easily distressed (Belsky and Rovine, 1987; Buss, and Plomin, 1984). Some are affectionate and seek closeness; others seem more independent. Temperamental differences between infants are related to, but not entirely dependent on, parents' responses, and on how caregivers 'regulate' stressful or frustrating situations (Belsky et al., 1984, 1997; Derryberry and Rothbart, 1997; Mangelsdorf, et al., 1990). Consistencies of individual motivation and temperament are found from early infancy to the toddler stage and beyond, especially, by research measures currently used, between infant 'habituation' or 'regulation of arousal' and toddler 'information processing' and 'compliance'. Even unborn foetuses who are genetically 'identical' twins express different liveliness and sensitivity of personality -- different amounts of activity and reactivity -- and these differences persist through development (Piontelli, 2002). But clearly the sympathy of parental behaviour and 'family

dynamics' can influence development of self-regulation or how an infant or toddler manages interpersonal feelings, focuses attention and learns. In other words, personality and intelligence are both influenced by social experience as well as by constitutional factors in the child.

Differences have been found in male and female infants before 6 months, in affective expressiveness and style of communication, and in listening responses to non-vocal tones and musical stimuli (Selby and Sylvester-Bradley, 2002; Trevarthen, et al., 1999; Tronick and Cohn, 1989; Weinberg, et al., 1999). Boys tend to posture in a more challenging way to a mirror, while girls are more 'receptive' and playful (Fiamenghi, 1997; Trevarthen, et al., 1999). Mothers' behaviours tend to be different to boys and girls, too. It is found that a mother is more likely to synchronise with and match male infant behaviours to a greater extent than female infant behaviours in early interactions (Kitamura and Burnham, 1998), which appears to reflect sensitive maternal attunement to differences in the ways the infants act (Tronick and Cohn, 1989; Tronick and Weinberg, 1997). There is strong 'mutual influence' in the dyad. Usually, 'chat' is more easily achieved with girls; more effort is required for the mother to reach the same level with a boy.

B.5 Learning Meanings, Sharing Tasks and Understanding Speech Come Together As Serious Occupations. Being 'Clever' Shows Self-And-Other-Awareness -- A One-Year-Old Is Also Performer, Or a Clown.

- *Sharing play with objects proves that the one-year-old has become motivated for cooperative awareness.*

At 9 months, other persons' expressions, actions and the ways they use objects become interesting signals for the baby, telling what they are trying to do (Adamson, 1996; Donaldson, 1978). The infant shows a new 'cooperative awareness', which in turn attracts adults to show what they are doing, and parent and infant can now work together in goal-directed activities (Adamson and Russell, 1999; Carpenter et al., 1998; Hodapp, et al., 1984; Hubley and Trevarthen, 1979; Reddy, et al., 1997; Rogoff, 1990, 1998; Trevarthen and Hubley, 1978). They imitate what the other is doing, acknowledging that they can have an effect upon each other's purposes by gesture and sign alone, and that they can direct each other's attention to things or suggest future actions by sequences of pointing, vocalising, changing eye-direction, facial expression and movement (Acredolo and Goodwyn, 1988; Baron-Cohen, 1994; Butterworth and Grover, 1990; Hubley and Trevarthen, 1979; Meltzoff, 1985, 1995). Infant and caregiver also interact to share jokes and memories (Meltzoff and Moore, 2001; Reddy, 1991; Trevarthen, 1986). Mother-infant dyads play more rounds of games when infants join in with game-relevant behaviours at this age, and maternal attention-getting and physical "stage-setting" behaviors decrease (Hubley and Trevarthen, 1979).

The joint interest or shared focus of activity developing at one year enables 'cultural expressive reference' to develop, behaviour to identify things for others' attention by a sign or a word (Acredolo and Goodwyn, 1988; Carpenter et al, 1998; Jusczyk, 1997, 2001; Kuhl, 2001; Meltzoff and Moore, 2001; Tomasello, et al., 1993; Trevarthen, 1988, 1998; Whiting and Edwards, 1992). The child is learning to recognise words and relate them to what is being done (Jusczyk, 1997; Locke, 1993; Rollins and Snow, 1998; Tomasello, 1988), paying attention to intonation and phonemes particular to the language they hear (Jusczyk, 2001; Kuhl, 2001; Nittrouer, 2001). At the same time the infant's hearing is becoming less able to discriminate the speech sounds not used in that language. One-year-

olds imitate conventional gestures, such as waving 'bye bye'. They can recognise the difference between male and female voices (Werker and McLeod, 1989).

In the second half of the first year the infant imposes intonation contours upon 'babbling' that matches speech sounds heard, and this helps word learning (Davis and Lindblom, 2001; Lacerda and Sundberg, 2001; Oller, 1986; Papousek and Papousek, 1981). From 7 months infants vary intonation and voice quality to produce contrasts of interpersonal meaning in communication with familiar persons -- 'nagging', requesting, protesting, demanding, commenting and getting attention. Successful interaction is more easily achieved with girls than it is with boys (Fiamenghi, 1997; Selby and Sylvester-Bradley, 2002; Trevarthen, et al., 1999).

- *'Showing off' and self-consciousness show trust in friendship, and enjoyment of it.*

Mutual attention and sharing interest in others' purposes and feelings facilitates the further development of a sense of self-and-other and feelings of effectiveness in communication (Vygotsky, 1978; Rogoff, 1990). 'Triadic play', with objects and events, offers especially rich occasions for learning in company and with emotion (Hodapp, et al., 1984; Hubley and Trevarthen, 1979; Nakano and Kanaya, 1993; Trevarthen and Hubley, 1978; Trevarthen, 1987, 2001). The infant clearly uses other persons' attention and responds to praise or reprimands, as well as taking information from other persons' emotions as in 'social referencing' (Klennert et al., 1983; Selby and Sylvester-Bradley, 2002; Sroufe, 1996; Stern, 1993, 1999, 1985/2000; Uzgiris, 1991). Displays of exaggerated behaviour, pretense and clowning, as well as demonstrations of familiar objects and their learned uses, are highly sensitive to others' responses, and 'complex basic emotions' of pride and shame are displayed (Draghi-Lorenz, et al., 2001; Leslie, 1987; Lewis, 1993; Sroufe, 1996; Stern, 1990; Trevarthen, 2002).

Self-conscious emotions, including coyness in front of a mirror, may be seen well before 6 months, but at the end of the first year most infants have become much more subtle and responsive clowns (Draghi-Lorenz, et al., 2001; Reddy, 1991; Reddy, et al., 1997; Sroufe, 1996; Trevarthen, 1990). 'Self-awareness' and 'self-confidence' clearly develop in relation to changes in the infant's motives for sharing purposes and feelings with others, for gaining a more differentiated and proud 'social identity' in secure relationships (Yarrow, et al., 1984). The self is innately sociable -- the 'other' is present in the psyche from the outset (Aitken, and Trevarthen, 1997; Selby and Sylvester-Bradley, 2002). This is important for learning at all ages. As Jerome Bruner says, feeling good or 'self esteem' is part of the 'disposition to learn' (Bruner, 1996).

YEAR TWO:

EXPLORING SOCIALLY IMPORTANT MEANINGS, EXPRESSING A PERSONALITY IN RELATIONSHIPS, AND STARTING TO TALK

B.6 Between 9 Months and 2 Years Infants Vocalise and Gesture for Many Purposes. Language-In-Play Defines Objects and Actions in Familiar and Responsive Company -- With Family and with Other Children.

- *Gesture and vocalisation work together to make contact, convey meaning, share understanding and guide learning. Babbling and gestures begin to be sensitive to the ways older people make language.*

Talk-like messages, to express social feelings and to seek or avoid contact, as well as to express 'acts of meaning' or 'proto-language' -- for 'directing', 'requesting' or 'informing', combining 'topic' and 'comment' -- may take codified forms well before the emergence of multiple-word utterances (Acredolo and Goodwyn, 1988; Bruner, 1983; Butterworth and Grover, 1990; Locke, 1993; Rollins and Snow, 1998; Nittrouer, 2001). Vocal games and playing about with displays of motives and experiences in the company of parents and siblings helps learning of words (Carter, 1978; Dunn and Kendrick, 1982; Oller, 1980; Oller and Eilers, 1982; Rome-Flanders and Cronk, 1995). Meaningful acts copied from other persons are often shown as 'deferred imitations', and these are used to confirm or extend relationships, as simpler imitations were in the first year (Diamond, 1985; Hubley and Trevarthen, 1979; Tomasello, 1988). Girls tend to use learned expressions or symbolic gestures more than boys (Acredolo and Goodwyn, 1988), and they imitate more in teaching/learning situations with a mother (Forman and Kochanska, 2001).

As a toddler shows more interest in sharing experience, parents may intentionally facilitate conceptual and cultural development -- providing word labels, imparting cultural information, presenting pictures and books, demonstrating, modeling and correcting use of social conventions and tools, and monitoring conceptual accuracy and rewarding appropriate behaviour (Carpenter et al., 1998; Hubley and Trevarthen, 1979; Sawyers and Rogers, 2001; Tomasello, 1988). Emotional and moral aspects of sharing are also conveyed to a responsive child (Forman and Kochanska, 2001). Parents' use of 'expressive focus', such as prosodic emphasis and word repetition, makes it easier for a child to share joint reference to objects and events and thus grasp meaning and cooperative attitudes, which are fundamental to the development of communication, friendship and word-understanding (Bruner, 1983; Marwick, 1987). A mother's playfulness and sharing of infant interests and expressions of pleasure affects a toddler's language comprehension and language-in-play behaviour (Forman and Kochanska, 2001; Hobson, 2002; Hodapp, et al., 1984; Rome-Flanders and Cronk, 1995; Tamis-LeMonda, et al., 1998a).

- *Early conversations in the family need company, but are often generated by the children. Speech is practised in the context of cooperative play and collaborative doing and thinking. Symbols become the currency of conventions and humour in imaginative play and narration.*

Neither their interactions nor word learning depends on adult-scaffolded formats (Akhtar et al., 2001). Both child and adult are active in promoting language development (Bloom, et al., 1996). The child's 'disposition to communicate (talk and/or gestures)' is crucial (Donaldson, 1995; Hobson, 2002). Nevertheless, there are important differences between

families, and cultures constrain beliefs and actions of parents, and the child's opportunities to take part in language (Biringen, et al., 1994; Bornstein, et al., 1999, 2001; Chavajay and Rogoff, 1999; Damast, et al., 1996; Hammer and Weiss, 1999; Pierce, 2000).

Recent work in language development indicates that the timing of children's production of first words, the timing of their receptive understanding of 50 words, and maternal responsiveness to their efforts at communication each contribute separately to variation in the timing of language milestones (Bornstein, et al., 1996; Locke, 1993). The child is not autonomous and needs sympathetic and interested company, but is not at all passive or just receptive in language learning (Akhtar et al., 2001; Bates and Dick, 2002; Bober, et al., 2001; Donaldson, 1995). Maternal labeling assists toddlers in acquiring lexical principles, but the 'vocabulary spurt' can proceed during natural conversational interactions before infants learn lexical principles by instruction (Bloom, et al., 1996; Masur, 1997). In experimental studies, children of 18 months quickly learn to associate nonsense words with actions on objects, or to label things (Akhtar and Tomasello, 1998). They hear, see the action and remember the new 'word'.

Infants generally have about 50 words at 18-20 months (Bloom, et al., 1996; Brown 1973; Locke, 1993; Tamis-LeMonda, et al., 1998a). Words are combined to communicate more specific message content, and labels are 'overextended', that is, applied too widely to objects or contexts, as the child tries to find the right 'code' by imaginative construction (Emde, et al., 1997). Prosodic emphasis is used to mark new ideas in the two-word stage, and infants follow the mother's use of intonation in their second year and produce functionally clear conversational utterances with intonational expression (Marwick, 1987). Mothers have good knowledge of recent developments and perceive the expected level of language development well, enjoying growth in the child's language play (Biringen, et al., 1994; Fiese, 1990; Tamis-LeMonda, et al., 1998b). A one year old may follow verbal directives and know the names of people and familiar things. The two-year-old is usually a talker (Locke, 1993; Tomasello, 1992).

Two-year-olds use memories of the familiar past to create and interact within an imaginative present, and a sense of humour that plays with meanings is important for this (Emde, et al., 1997). The acquisition of concept labels provide new ways in which the child can play with and joke about concepts, to negotiate shared knowledge and explore concept boundaries, including moral issues (Dunn, 1988; Fiese, 1990). By 16 months the child is observed to engage in 'semantic violations' to amuse themselves and to make others laugh - using a recently learned label in a 'wrong' but nevertheless partially similar context --e. g. jokingly putting a foot into the arm of a night-dress and saying 'shoe', and by 20 months a new verbal game has appeared based on jokes about phonetic patterns -- e.g. 'cows go moo, mummy go mamoo, daddy go dadoo, ha ha' (Observations and examples from a case study by Horgan, 1981).

- *After 12 months, infants and peers readily interact --negotiating social roles and making up imaginative games, miming roles and projects, imitating symbolic behaviours. They are seeking to think adventurously, being different persons, exploring meanings.*

A one-year-old can have several companions, of different ages, who share finding out what the social world is like (Bailey, 1994). In the second year infants tease and joke and clown with parents and siblings, and at the same time negotiate shared knowledge and explore concept boundaries (Bakeman and Adamson, 1984; Brownell, 1988; Dunn and Kendrick, 1982; Rheingold et al., 1976; Yarrow et al., 1984). They also offer comfort to others, for example patting them sympathetically when they seem to be in distress (Dunn, 1988). Having an older sibling has been associated with longer periods of functional play (Bober et al., 2001).

Quality of maternal attachment influences peer interactions at 18 months (Fagot, 1997). Presence of a peer can facilitate leaving the mother to enter a playroom, but also is found to lead to shortened play episodes, increased self-directed behaviours and increased contact maintenance with the mother (Gunnar, et al., 1984). Interpersonal negotiation strategies change from 18 to 24 months and depend on context, moving from anticipation of the other's behaviour to coordinating viewpoints (Brownell and Carriger, 1990; Guillain and Foxonnet, 1990; Zaslow, 1980). Each child is shown to have an interactive style in approach to engagement with another child, and this is stable over time (Guillain and Foxonnet, 1990; Ross and Lollis, 1989). The temperamental trait of 'interpersonal inhibition' is stable from 16 to 40 months, affecting quality of peer play and adjustment to out-of-home care (Broberg, et al., 1990). Boys and girls are reported to behave differently toward mothers, peers, and toys in a playgroup setting at 13 months, boys, at least at this age, being initially more ready to interact with both peers and toys (Eckerman and Whatley, 1977; Hock et al., 1984).

Imitation is a principle means of communication in interaction between toddlers and increases markedly from 16 months to 32 months (Eckerman and Didow, 1988; Eckerman, et al., 1989; Kagan, 1981; Montagner, et al., 1993). Directing a peer verbally increases over this period but is not frequent (Eckerman, et al., 1989). Teasing amongst 18-month-old peers is very common and can occur as early as 14 months (Dunn, 1988).

B.7 Toddlers Learn with Emotion, Developing Emotionally-Charged Relationships to Parents and Others. They Discover About Themselves, and Differences in Person and Behaviour That Matter in Society.

- *Exuberant, dancing play with an agile body is typical of toddlers – they develop favourite ways of celebrating movement, song and dance, beginning to share a 'musical culture', the source of nursery-rhymes and playground games. Toddlers share an expressive emotional culture, imaginatively and creatively.*

Two-year-olds revel in moving about (Custodero et al., 2002; Montagner et al., 1993). They move with all their body to express their thinking, and they are sensitive to the rhythms and forms of others' movements. Their behaviour supports the theory that human communication by gestural miming evolved before communication by speech (Donald, 2001). The development of pretence and imagination is related to the creative imitation of other persons' movements, and to sensitivity for animacy and intentionality in the behaviours of humans and pets (Baudonnière, 1996; Forman and Kochanska, 2001; Kagan, 1981; Legerstee, 1992; Poulin-Dubois et al., 1996). It depends also on cultural understanding of emotions, and on the transmission of social and emotional understanding in others' communication with the toddler (Abe and Izard, 1999; Aber, et al., 1999; Bloom, 1998; Cohen, et al., 1998; Denham, 1993; Donovan, et al., 2000; Dunn, 1994; Egeland and Farber, 1984; Sethi, et al., 2000).

- *Developing emotions express needs for companionship or shared experience, and motivate learning. Emotions of toddlers can be measured, but make sense only in relationships with others and what they do.*

A young child's emotions reflect others' emotions, but feelings are not just fabricated by social training (Gerull and Rapee, 2002; Moses, et al., 2001; Robinson and Acevedo, 2001). Parents and other persons may facilitate and enrich the emotional life of a child, or make emotional self-regulation, expression of emotions and understanding them difficult

(Greenspan and Greenspan, 1989; Harris, 1999; Spangler and Grossmann, 1993; Vondra, et al., 2001). Absence of consistent intimate emotional support can seriously affect a child's stability of motivation and social adaptation (Darwish et al., 2001; Goldsmith and Rogoff, 1997; Murray et al., 2001; Pederson, et al., 1998). However, there is no evidence for the common belief that an infant is born with only self-regulatory 'biological' emotions that require 'socialisation' to be effective in interpersonal and social life. Understanding of emotions is not dependent on learning how to use verbal labels for emotions (Bloom, 1998; Moses, et al., 2001). 'Emotional milestones' relate to changing relationships and the sharing of experience through intentional communication (Sethi et al., 2000; Vondra et al., 2001). 'Emotional thinking' develops with narrative imagination and language, and conditions the expression of pride or shame (level of self-esteem) in a personal identity (self-image) (Lewis, 1993; Marshall, 1997; Target and Fonagy, 1996).

One year olds are interested in others emotions, as well as immediately affected by them (Dunn and Kendrick, 1982; Moses, et al., 2001). They explicitly orient to look at and listen to persons (social referencing), to gain estimation of others' feelings about events and objects, taking emotional 'advice', but their reaction to perceived emotions depends on the level of reference or mutual confidence habitually shared with the other person (Greenspan and Greenspan, 1989; Harris, 1999; Stipek, et al., 1992; Vondra et al., 2001). Adult expectations, representations and sensitivities with children, especially in the family, can affect the child's social communication and emotional behaviours in interaction with others (Constantino, 1996; Donovan, et al., 2000; Nagy, and Kovacs, 2000; NICHD, 2001; van den Boom, 1995). Children may vary in their understanding of emotion due to differences in the way the family talks about emotions, and they are affected by parents' sensitivity to emotion, and by the quality of their attachment relationships to parents, the quality of the parent's relationship to each other (Constantino, 1996; Denham, 1993; Harris, 1999; Howe, 1991; Kochanska et al, 1996; Kochanska, 2001).

Slightly older siblings of 14 month olds were observed to engage in internal state language with their younger siblings significantly more in the mother's absence and during sibling conflict and play, which may lead to the establishment of shared meanings about their interpersonal world (Howe, 1991). A child as young as 18 months can actively contribute to pretend fantasy play with an older sibling, and can act out pretend feelings (Dunn, 1988). The style of negotiation between a mother and a child around 18 months of age in a teaching situation reflects on the acceptance by the parent of the child's imitations and how receptive the child is to adult help, indicating that awareness of an other as a partner is a complex emotional and cognitive process with 'moral' as well as 'rational' components (Forman and Kochanska, 2001).

- *Throughout the second year, self-awareness develops in social interactions and relationships, and in talk about these.*

From around 18 months children are said to develop 'self recognition', often identified with self-awareness (Kagan, 1981). This is assessed by the 'spot of rouge on the nose' test (Baudonnière, 1996; Lewis and Brooks-Gunn, 1979). It is argued that self-recognition and spontaneous 'perspective-taking', to see things as others' do, develop in close synchrony because both require a capacity for 'secondary representation', or self-picturing (Piaget, 1962; Target and Fonagy, 1996). This conclusion from a rational and cognitive perspective needs to be balanced by evidence, from naturalistic studies with video and from parental diaries, that much younger infants have clear operational self-other awareness, and the appropriate emotions, in communication and play (see above on game-playing, joking

and 'showing off') (Dunn, 1988; Reddy, 1991, 2002).

Sociable self-awareness, with its emotions of pride, shyness and shame, is different from own-body awareness (Draghi-Lorenz et al., 2001; Emde, 1992; Kagan, 1981; Lewis, 1993; Reddy, 2000), as tests with autistic children, who have clear development of the latter but not of the sociable emotions, show (Hobson, 1993, 2002).

In the second half of the second year children may show, or 'talk about', a sense of 'right and wrong' (Donaldson, 1995). They also have an ability to infer a 'cause' in relation to an event, especially for effects resulting from persons' actions or 'animacy' (Casasola and Cohen, 2000). Children become concerned about the evaluations of themselves by others and set self-imposed standards of achievement (Kagan, 1981; Stipek, et al., 1992). European writers have observed an appearance of an 'identity' or 'ego' in the second year, whilst the more community-oriented cultures observed a growing adherence to mores, or traditional rules of conduct towards others.

Children as young as 18 months display sex-stereotyped toy choices. In one study, parents' initial nonverbal responses to toys were more positive when the toys were stereotyped for the child's and parent's gender than when they were not (Caldera, et al., 1989). Children have a good 'working definition' of their own gender by age 2, soon understanding that in society gender is a stable and constant attribute of a person (Dunn, 1988). Gender observations and explanations are often the topic of everyday conversation of young children and parents, and certainly verbal labeling, as well as expression of other persons preferences and opinions, must motivate this development, as it does for awareness of other differences such as those of age and race (Bloom, 1998; Dunn, 1988).

B.8 Imagination and Narrative Memory Expand the Child's World with 'Human Sense' and 'Common Sense'. Families and Cultures Give Different Roles, Support and Training.

- *Building Thought and Understanding. 'Scaffolding' and 'Sharing'. Who leads?*

In the first three years, a child's memory and imagination grow; extending greatly the world that can be shared with others (Emde et al., 1997; Fivush and Hudson, 1982; Nelson, 1982; Rovee-Collier and Gerhardstein, 1997; Trevarthen, 2001). Adults respond by increasing their support, guidance and instruction.

The evidence shows that a parent will sometimes try to direct the attention and interest of an infant under one year, guiding action on an object of joint focus for mutual exploration (Adamson and Russell, 1999; Bakeman, and Adamson, 1984; Bruner, 1996). Any adult teacher is, to some extent, 'scaffolding' the experience that the child is building, reinforcing the learning and memory of the child (Erickson, 1996; Rogoff, 1990, 1998; Vygotsky, 1978). Later, with a child at two and three, the parent is similarly 'scaffolding' the language learning and cognitive development (Bruner, 1983; Masur, 1997).

Although structured parent-child interactions are important to the development of conventional expressions of all kinds (Rome-Flanders, and Cronk, 1995), the active initiative of the child should not be underestimated. It is reported that the use of gesture labels is positively related to verbal vocabulary development (Bates and Dick, 2002), and there are clearly different patterns in development of individual children (Tamis-LeMonda et al., 1998a).

The level of child language and mothers' involvement in symbolic play have been found to influence collaborative play, and can have effects in the child's solitary play (Bornstein et al.,

1996). The cognitive advantages of child play and maternal influences on child play depend on the child's gender and the mother's 'verbal intelligence' (Damast et al, 1996). More complex forms of play have been observed when children were playing with their mothers than when playing by themselves (Bakeman, and Adamson, 1984; Bornstein et al., 1996). Maternal intrusions and questioning discouraged the child's symbolic play. Turn-taking talk and action was more likely to precede symbolic play rather than simple exploratory play, and maternal intrusiveness was more likely to precede simple exploratory play (Damast et al, 1996). Symbolic play develops in situations of mutual action and responsivity. When this fails, the child tends to play alone (Bornstein et al., 1996).

- *Learning about objects and social roles varies in different families and cultures.*

Mothers generally adjust their play, intuitively, to a toddler's play level, responding at the same level or at a higher level than their child's play in the last half of the second year (Emde, et al., 1997). They may be influenced by 'knowledge' about early play development, intending to promote or 'challenge' their child's development (Tamis-Lemonda, et al., 1998 b). Children's play behaviours in different societies are supposed to be determined by different factors: a child's stage of cognitive development, social play partners, and types of toys, training and 'contextual' or environmental factors such as family beliefs, culture and religion (Bober, et al., 2001; Damast, et al., 1996; Pierce, 2000; Serpel, 1976; Whiting and Whiting, 1975).

Developments are interpreted according to different theories of the growing mind and its environment, using such terms as, 'developmental niche', the 'zone of proximal development' (Vygotsky, 1978) in which the child finds 'action possibilities' and 'intentional affordances' of objects. Research findings support several developmental models (of 'attachment to the mother or caregiver', the child's 'zone of proximal development', developmental 'continuity and change'), and they reveal the influence of cultural differences due to variations in beliefs and values concerning the relative importance of (a) collective interpersonal understanding and responsibility or (b) individual enterprise, focus on reality, tasks and 'intelligence'. The idea that the child's language and conceptual development is aided by structured adult 'scaffolding' --communicating and acting to supply information and ideas that the child needs to take them a little further than their conceptual understanding would enable them to do alone (Bruner, 1995, 1996; Rogoff, 1990, 1998; Vygotsky, 1978) -- contrasts with the view that the child cannot be instructed in something before developing necessary conceptual 'operations' or schemata for perception and reasoning (Piaget, 1954).

There are variations in family psychology and parents' beliefs and behaviour -- in sharing of attention with children and accepting what they want to do, as well as in the amount of talk that acknowledges or elaborates children's interests and purposes (Biringen, et al., 1994; Bloom, et al., 1996; Bornstein, et al., 2001; Damast, et al., 1996; Goodnow, 1984; Goodnow and Collins, 1990; Rheingold et al., 1976). In a study of African American mothers and their toddlers there was more talk between parents and children in middle SES than in low SES families, but play styles were similar (Hammer and Weiss, 1999). A comparison of Argentine and US 20-month-olds revealed that, in both cultures, boys prefer exploratory play, and girls prefer symbolic play, and mothers match these differences. U.S. children and their mothers engaged in more exploratory play, whereas Argentine children and their mothers favoured more symbolic (sociable) play, with more verbal praise of the children. Different modes of exploration, representation, and interaction were used --e.g. emphasising 'other-directed' acts of pretence versus 'functional' and 'combinatorial' exploration. These differences in sharing personality and agency or interests with children fit with the different ways societies value community and collective understanding versus individual achievement and self-image (Bruner, 1995; Chavajay and Rogoff, 1999; Bornstein, et al., 1996, 1999)

YEAR THREE:

GETTING A SENSE OF SELF-WORTH IN SOCIETY: SHARING AND TALKING ABOUT IDEAS AND PROJECTS, UNDERSTANDING OTHERS' MINDS

B.9 Talking and Thinking with Confidence About Objects, Actions and Tasks. Making Symbols for Sharable Ideas, Images of Action and Memories. Creating Art. Joining Culture.

- *In the third year language expression of concepts, humour and intentions is expanding rapidly. Drawing, and other kinds of 'symbol' develop with imaginative play and language.*

Sentences, with syntax and grammatical markers, such as plurals and tense markers, are used correctly after about 30 months (Bruner, 1983; Locke, 1993). Children now are aware of established shared meanings of words and, in experimental conditions, they will select novel objects over familiar ones as the likely referents of unfamiliar nouns, and they also map novel verbs onto novel actions (Merriman, et al., 1996). Two year olds monitor others' conversations and pick up vocabulary in this way (Akhtar, et al., 2001; Golinkoff, 1983). The quality of talk and play between infants and their parents and siblings continues to influence language acquisition. Poor language development can be brought about in many different ways, but support for the child's wish to communicate is important at every stage (Rocissano and Yatchmink, 1983). Parents impart culture by explaining and offering examples, and concepts develop in conversation, as well as in other forms of communication and interaction (Tizard and Hughes, 1984; Whiting and Edwards, 1992; Whiting and Whiting, 1975).

Early in the third year a more advanced version of earlier humour with words is found. The child may introduce new words into familiar situations, the new words being related in some way to the words they replace. Later in the third year 'riddles' formats and jokes setting up the other for a linguistically misleading context appear (Horgan, 1981). Two and three year olds clearly understand intentional verbal joking - when asked why someone was naming objects incorrectly an explanation that the speaker probably meant it to be a joke is offered (Baron-Cohen, 1997).

Over the second year children's drawing has gained more control of strokes, with loops and arcs, dots and direction. By about 3 years the child is drawing a variety of familiar things, and making drawings to illustrate stories or narratives (Light and Barnes, 1995). This tells us more about the growth of thinking, and the ways the child is learning to communicate ideas and imagination creatively (Tizard and Hughes, 1984). A person is often drawn in the form of a circle head with features of a face, and arms and legs coming out of it. Children whose own drawings most resembled the classic tadpole (the circle with arms and legs) were asked to choose 'the best' from a choice of three drawings - classic tadpole, 'intermediate' tadpole (arms coming out of the legs) and 'conventional' figure (head, body, arms and legs from body). Classic 'tadpolers' thought the classic tadpole was best. When asked about the 'silliest' picture, the majority chose 'conventional' and the rest the 'intermediate' (Cox, 1992). It is argued that children's drawings at this age are 'graphic symbols' of persons rather than a 'representation' of what the body is really like, and that the greater 'realism' of children's later drawings may reflect changes in their understanding of the conventional functions of drawing (Light and Barnes, 1995). Similar findings have been found in research on toddler's sense of number or quantity, and their invention of notations for these (Hughes, 1986).

- *Notions of number and quantity may be represented with iconic signs. Graphical signs are linked to creative use of the body and the beginnings of the 'Temporal Arts'. Compositions of dance and song create child cultures, and make links to meanings of the adult world.*

A three-year-old may count and represent quantity or number with shapes or marks on paper (Donaldson, 1978, 1995; Hughes, 1986). Understanding of number is picked up from many home activities, and from frequent references to numbers in adults' talk to infants and toddlers, which adjusts to the child's actions on objects (Durkin et al., 1986; Saxe and Guberman, 1987). Drawings, like other 'narrations', are part of body action, and are often accompanied by dancing, large gestures, spontaneous exclamations, song, or rhythmic chanting (Light and Barnes, 1995). A toddler's mathematical ideas are 'embodied' (Damasio, 1999; Donald, 2001). This is interesting in relation to psychological research that shows mathematical invention by gifted adults to be related to experiences of bodily movement in space and time (Lakoff and Johnson, 1999). The same rule applies to the process by which mathematical thought is learned by children.

Enjoyment of freedom in body action is part of intimacy in creative life. Songs and dances are quickly learned and shared with pleasure (Dissanayake, 2000). Groups of children develop their own performances and favourite games, including musical inventions exploring rhythm and melody. They create Bjørkvold's 'children's musical culture' in the chants and game songs of the playground, which may become enduring traditions, passed on from child to child through generations (Bjørkvold, 1992).

B.10 Sharing Others' Experiences and Feelings Makes Company Enjoyable and Instructive, and Overcomes Isolation and Withdrawal. Relationships Set the Stage for Social Behaviour, Moral Attitudes and Adjustments of Personality.

- *Developments in language create opportunities to question and comment on emotional states and talk about feelings and moral issues. Engagement in conversations and play about feelings and relationships facilitates 'perspective taking skills'.*

Parents and toddlers negotiate family rules, comment on issues of blame and responsibility and on causes and effects of behaviours and actions (Dunn, et al., 1987). Children's understanding of other's feelings and awareness develops greatly in the third year (Donaldson, 1995; Eckerman, et al., 1989). Toddlers can use the direction of eye gaze alone to infer about another's desire, and 3-year-olds are capable of inferring desire from other nonverbal cues, such as pointing (Lee, et al., 1998). There are signs of what can be recognised as a conscience, or for a conscious moral responsibility toward others (Kochanska, 1997). In the third year a child may respond differentially to the distress of a sibling depending on his or her own role in causing that distress (Dunn, 1988). If they were not the cause of the distress they are likely to try to comfort the sibling. By 3, children can talk 'objectively' about feelings, and they can understand, talk and argue about intentions and purposefulness behind the actions of another person (Povinelli, and Giambrone, 2001). The child is concerned about evaluations of themselves by others. By the end of the third year a clear understanding of winning and losing in a competitive task is established (Stipek, et al., 1992)

Engagement in conversations and play about feelings and relationships is found to facilitate 'perspective taking skills', or appreciation of others points of view --what they intend, know and believe to be true, and how they feel (Povinelli and Giambrone, 2001). That is how a

child learns to think like others, and to 'be' different thinkers or persons in imagination (Eckerman, et al., 1989). At 3 years old children are not found to be able to indicate an 'objective understanding' that a statement, whether true or false, will be disbelieved if the listener has existing beliefs to the contrary and that it will be believed if no such beliefs exist, which 4 year olds are able to do (Perner and Davies, 1991). It has been suggested that by 4 years of age an understanding of the representational nature of belief has developed that has generally not yet developed at 3 years. Nevertheless, much younger children act with sensitivity to states of mind and mental causes of other persons' behaviour (Donaldson, 1995; Draghi-Lorenz, et al., 2001; Moore and Corkum, 1994; Moore and Dunham, 1999; Reddy, 2002). How much a 'theory of mind' is simply a learned way of talking about minds and their thinking and consciousness is still debated. Earlier language abilities have been found to predict later 'theory-of-mind' test performance development (Astington and Jenkins, 1999).

- *Moral and temperamental development is related to experiences in the family. Toddlers have consistent differences in measured temperament related to their 'attachments'.*

Children of 'authoritative' mothers (who are self-assured and clear and fair in discipline) are reported to be more likely to develop communication based on cooperation and mutual respect (Baumrind, 1991; Kochanska, 1997). In such findings it is not clear whether the relationship is due to confirmation of innate sympathetic and cooperative motives in the child, or learned socially approved conduct. In the US, developmental expectations and discipline strategies have been found not to differ between mothers and fathers (Bentley and Fox, 1991). Mothers everywhere seem to share the same hope for their children's behaviour, but differ in their beliefs about the nature of children, and in the types of behaviour they want the children to acquire (Whiting and Edwards, 1992; Whiting and Whiting, 1975). They have been found to encourage more conversations about feelings with girls than with boys, and girls appear to share an employed mother's sense of confidence and satisfaction in her work (Dunn, 1988). Mother's desires have been influenced in the past century by changes in social attitudes and politics, and the place of women's employment. A boy may be less contented when the mother is out of the home most of the day, but this depends on the father's relationships to the child and to the mother. Father's roles vary greatly from family to family, differ in different cultures, and have changed in recent history (Pruett, 1998).

Psychologists define temperament by differences between children in terms of such behavioural characteristics as 'level of activity', 'independence', 'cognitive focus', 'emotional behaviour toward others' and 'attachment'. They use questionnaires, rating scales and interviews with parents and carers. The concept of temperament is related to a medical approach, seeking to define diagnostic categories of health or ill-health in the individual. It needs to be interpreted in relation to every-day circumstances, and in the actual relationships of each child (Goldsmith, et al., 1997).

In an experimentally 'rigged' achievement situation, pride and shame reactions of 3-year-old boys were examined (Belsky, et al., 1997). Temperament at one year, defined by standard psychological tests of behaviour and talk, proved unrelated to pride and shame measured this way, but mothers and fathers who were more positive in their parenting had children who displayed less pride ('conceit'?) in a task situation, and children whose parents, especially mothers, were more negative in their parenting showed less shame

('disappointment?'). Parenting 'styles' are found to influence how children behave in such situations (Stipek, et al., 1992.

- *Play with peers at home and outside the home shows that children have consistent personalities.*

Measures of 'interpersonal inhibition' are stable from 16m to 40m at home and in other care settings, affecting quality of peer play and adjustment to out-of-home care (Broberg, et al., 1990). 'Separation intolerance' at 3 years of age has been related to an interaction of temperamental 'proneness to distress' and 'secure attachment history' (Fish and Belsky, 1991). Toddlers' soft-object attachments were found to be predicted by the maternal variables of 'constraint' and, for a child with 'low activity level', the mother's 'positive affectivity' (Steir, and Lehman, 2000). Enduring 'self-regulatory skill' can be identified as a trait early in development and infants have consistent differences in 'strategic attention deployment' (Sethi, et al., 2000). High levels of 'negative emotionality' have been reported to predict high levels of 'school readiness' when 'attentional persistence' was high (NICHD, 2001). They are associated with low levels of social competence only when 'attentional persistence' is poor, but children identified as having behaviour problems do not show this. Children who are less successful in attending to a task may need more support in communication.

The personality characteristic of 'inhibition/shyness' appeared to be an enduring trait from infancy through the preschool years (Belsky, et al., 1997). However, findings did not support the view that early personality variables (e.g., 'avidity', 'shyness', 'security') alone predict risk taking during later years (Kennedy, 1996). 'Inhibitory control' as a quality of temperament is reported to contribute to 'internalisation' or thinking to oneself (Kochanska, et al., 1996). A developmental interplay of temperament and socialisation as factors in emerging morality is reported (Kochanska, 1997).

B.11 Imitation, Role Play and Interpersonal Jokes of Toddlers Are Complex. Friendships May Last, and Help Development of Knowledge and Understanding. Success Depends on Relationships, Learned Narratives and Roles -- An 'Internal Working Model' of a Proud and Happy Self.

- *Imitation is still important in the play of peers in the third year, and much play activity is non-verbal.*

By 30 months peer social interaction is more coordinated and sustained and toddlers can be mutually supportive away from the mother and exploring the environment together (Gunnar et al., 1984). Two year olds and 30 month olds were found to cooperate effectively and coordinate behaviour to solve a simple problem (Brownell, and Carriger, 1990; Gunnar et al., 1984; Roberts et al., 1994). Children in the third year may differ consistently in their initiation of interaction and in the 'conflict contributions' they elicited from their peers. Relationships between peers emerged gradually in games and contingent interaction (Ross and Lollis, 1989). Although children of similar developmental level are found to have generally similar interaction styles, clear differences in personality influence friendships.

- *Imaginative play and role-play become more elaborate, and complementary role relationships are established, helping understanding others, and affirming personalities.*

Children engage in pretend activities, acting and talking in artificial ways (Fein, 1984; Williams, et al., 2001). Imaginative socio-dramatic and fantasy play is thought to promote

children's language skills and to be important in the establishment of gender and cultural identity (Bruner, 1986; Harris, 1998). A relationship has been found between early fantasy and pretence in under 3s and the same children's knowledge a year or two later about mental life, in themselves and in others (Taylor and Carlson, 1997). Both imagination and explanations of consciousness are conditioned by developing interest in cooperative action, and taking responsibility, with other children or alone (Brownell, 1988; Brownell and Carriger, 1990).

- *Children's awareness of themselves as 'different', and their sense of self worth grows clearer in the third year as they notice more how they are perceived by others. They become more aware of the different points of view and temperaments of others, adults and children, and think about them, making comparisons.*

Reflection on the self, and thinking about being with others, involves a creation of an individual way of acting and feeling, an 'identity' drawn from the children's gathering of information about themselves - how other people use of words for coded categories (such as gender terms) in society, other people's assessments of shared experiences, and comparisons the child is beginning to make between himself or herself and other children and older people (Stipek, et al., 1992). The 'self' grows in relationships, and children become more able to think about their own self identity throughout the third year. The view that children create of themselves and their feelings of self-worth are dependent upon their developing understanding of other people around them, and on their emotional and cooperative relationships with them (Bruner, 1986; Cohen, et al., 1998; Stipek, et al., 1992; Zimmerman and McDonald, 1995). Ways of approaching other persons and social manners can show stability from toddlerhood through to the preschool years, but each child thinks about themselves in a unique way (Denham et al., 1991).

- *Toddler's self esteem relates to the different domains of their experience in knowing and doing, and to their friendships. Self-other-awareness in girls and boys may be different.*

Self-esteem of toddlers has proved difficult to measure, and research is mainly on children over 3. Harter has developed a questionnaire on 5 domains of a pre-school child's self-esteem - scholastic competence, athletic competence, social acceptance, behavioural conduct and physical appearance (Harter, 1988). The match between children's aspirations and performance in a domain is important in determining feelings of self-esteem, as is respect given to the child by significant others such as parents, teachers and peers (Juhász and Munshi, 1990; Killen, et al., 2001).

Attachment theorists posit the development of a cognitive 'representation' or record of the child's experience of agency that is called an Internal Working Model (IWM) of the 'self' (Bowlby, 1958; Stern, 1985/2000; Winnicott, 1987). A positive IWM of self, one with high 'self esteem', can be assessed by a Puppet Interview (Verschuere, et al., 1996). It has been found to relate to competence and to security of attachment at 5 years, and to the child's social acceptance, behavioral adjustment and behavioral manifestations of self-esteem. When the working model of child-mother attachment was assessed through an Attachment Story Completion Task, a positive and strong connection was found between the security of the child-mother attachment representation and the positiveness of self. The Puppet Interview seems to be a promising instrument for assessing the representation of self in young children (Verschuere, et al., 1996).

Girls at preschool score significantly higher than boys in measures of 'approach confidence' and 'social-emotional expression' (Fuchs-Beauchamp, 1996). Partner preferences at preschool can be highly sex differentiated and stable over time, and the more girls and boys played with same-sex partners, the more their behaviour became sex differentiated (Martin and Fabes, 2001; Theimer, et al., 2001).

Research we have reviewed in this Section indicates that, while there are both inherited and acquired differences in vitality, intelligence and temperament, all infants seek to communicate and learn in affectionate companionship with people they know well.

Besides vital needs for health, happiness and security, every child wants company from adults who enjoy sharing the child's curiosity and playfulness. Persistent neglect of these needs, and of the emotions of pride and shame that children show in relation to how their knowledge and skills are received, may cause lasting emotional and cognitive disadvantage.

The child's motives that come alive in relationships of care and companionship are the generators of cultural learning. They define the optimal environment for growth and for both social and intellectual development, and do so from birth.

In the first year an infant needs sensitive care in stable and peaceful relationships with a few adults. As a playful self-awareness develops, so does the child's capacity for sociability seek for wider contacts. By the end of the year the infant wants support for his or her newly developed curiosity about other persons' intentions, gains interest in words and a willingness to learn in cooperation.

The second year is one of exploration, of increasing mobility, of independence in action and of imitation as a means to share experience and acting. The individuality of the child and awareness of others' attitudes and feelings leads to sensitivity for rituals, rules and social roles. Language awareness and speech develop rapidly. Understanding and thinking grow with the toddler's own impulses to explore and seek information, and they are enriched by learning from others in joint activities and conversation. If responsive companionship is not given, the child may withdraw or protest.

In the third year, power in language grows rapidly and it transforms every part of a child's life. Differences between boys and girls tend to become stronger. The child is more responsive to systematic teaching and may learn to sing, dance, draw and read. Talk about thinking and feeling leads to curiosity about how persons differ in what they experience and understand. Different cultural or family beliefs and attitudes increasingly condition the child's behaviour and awareness. The child gains pleasure from this special knowledge, and from taking responsibility for it, and receiving recognition.

SECTION C -- THE YOUNG CHILD IN A WIDER WORLD

DEVELOPMENT IN OUT-OF-HOME CARE

This section focuses on psychological research about the effects of kinds and qualities of child care provision on development of infants and toddlers, boys and girls, of different temperament and from different home environments with different parenting.

Some cross-cultural comparisons are made, but most literature comes from the USA, and most addresses the child's need for secure attachment relations in early years. It is primarily concerned with immediate advantages and disadvantages for the social and cognitive development of children, but a few studies attempt to follow longer term life effects.

Factors of the childcare environment and staff experience and training are evaluated, along with peer relations in group, and the level of consultation and mutual support between parents and staff.

How day care establishments for infants and toddlers fit the needs of families and the whole community, with its different sub-cultures, is also considered.

Childcare staff require special skills and experience, which raises issues of training, codes of practice and monitoring of the quality of provision.

C.1 Regulating the Conflicting Needs of Adults, Society and Young Children.

- *The world of children and the working world of adults are furthest apart for the first few years after a child is born.*

According to Scarr (1998), childcare in the US has 2 purposes: mothers' employment and children's development. These are conflicting goals, because the first focuses on the quantity and affordability of childcare whereas the second favours expensive quality services. Affordable childcare fosters maternal employment and gender equality in society. With welfare reform demanding more child-care places to move mothers from welfare to work, the pressure for larger quantities of childcare is great. Demanding regulations raise the quality of care and give more assurance of children's well-being, but they also increase the cost. More expensive regulations price more working parents out of licensed care and force them to use unregulated home care. Scarr's crucial point is that widely varying qualities of childcare have been shown to have only small effects on children's current development and no demonstrated long-term impact, except on disadvantaged children, whose homes put them at developmental risk. In Scarr's view, parents have far greater impact on their children's development through both the genes and environments they provide. Thus, if the responsibility for child upbringing is not primarily in out-of-home care, greater quantities of affordable, regulated childcare may not be the best goal, and policies should focus on assisting parents to give care. There is a choice, and a balance of costs and benefits has to be aimed for. High quality childcare services are, inevitably, expensive. Costs have to be set in relation to the obvious benefits of quality in the training of staff and

the environment and resources provided.

Scarr's conclusions are not in accord with those from a study by the Department of Psychology, University of Virginia (Phillips, Howes and Whitebook, 1992). Quality of care was assessed in 227 childcare centres in five metropolitan areas of the US. Centres in states with more stringent child care regulations tended to have better staff-child ratios, staff with more child-related training, and lower staff turnover rates. Similarly, centres that more fully complied with the ratio, group size, and training provisions of a set of proposed federal child care standards had significantly lower staff turnover rates, more age-appropriate classroom activities, less harsh and more sensitive teachers, and more teachers with specialised training. For-profit centres offered children less optimal care than did non-profit centres. These findings were placed in the context of ecological models of research and of contemporary policy debates about childcare.

Preconceptions about the factors that determine the course of a child's development guide research to certain conclusions. Science, however rigorous, does have its blind spots and is susceptible to bias by personal, social and political interests. Hence the inconclusive public debates in a context of rapid social change that is affecting adult employment and the patterns of family and community. Nevertheless, lasting benefits of quality care in addition to that parents can provide have been clearly demonstrated with a range of methods (Abbott and Moylett, 1997; Bertram et al., 1996; Bruce, 1987; David, 1996; Laevers, 2002; Sawyers and Rogers, 1988; Sylva and Wilshire, 1993).

C.2 A Child Makes Different Attachments to Mother and Father, to Childcare Staff, and to Other Children.

- *Research findings question the hypothesis that sensitive care of the mother alone, is necessary for normal socio-emotional and cognitive development. An infant will normally form an affectionate attachment to any person who offers constant, sensitive and responsive care and company.*

It has been thought that separation from the mother or other principal caregiver must inevitably be damaging for a young child, with risk of causing lasting emotional harm. This is a conclusion from observations of the distress and serious emotional withdrawal of deprived infants in orphanages and hospitals, and from observations of how one-year-olds behave when they are separated from their mothers in a strange place, with a strange person, then reunited with the mother. Infants differ in their responses in these circumstances, and the differences can be related, in part, to the kind of relationship they usually have with their mother. When a mother suffers from a personality disorder or an emotional illness that makes it impossible for her to respond supportively to the emotions and interests of her infant, this definitely can affect the infant's emotional well being and learning (Hobson, 2002; Murray and Cooper, 1997). But research motivated by attachment theory does not take sufficient account of how healthy and happy infants and toddlers well cared for in a familiar place can take active part in the company of persons they know well, forming easy relationships with adults, peers and older children, with whom they play easily and receive warm responses. Even young infants can engage in positive and beneficial communication with new acquaintances of any age, and develop friendships.

Bowlby (1953/1965) maintained that there is an innate predisposition in babies to maintain proximity to the mother, or mother substitute, which one-year-olds balance with their growing need to explore the environment. Young children perceive separation from caregiver as a threat and this is likely to activate attachment behaviours. Goldfarb (1947)

found children who had lived in an institution in their early years had various difficulties in later childhood related to intelligence, speech, reading, arithmetic, emotions and social relationships. Bowlby (1944) found delinquency in adolescent boys could be related to earlier deprivation of maternal care and maintained that infants need a warm continuous relationship with a mother figure for normal development to occur and that significant separation from the primary caregiver has serious effect on children's emotional development (Bowlby, 1953/1965).

The evidence is that separation from the primary caregiver is not harmful if children are left in the care of other adults with whom they have formed a warm relationship (Bertram et al., 1996; Melhuish et al 1990a, 1990b). Rutter (1981) reported evidence that there was not necessarily a direct causal link between experience of separation from parents and later emotional distress --the critical compensating factor is whether young children are given sympathetic and reassuring company through an experience of separation from parents. On the other hand, studies of children in care indicate that shared care of young children by large numbers of adults can harm their capacity to form close relationships (Tizard and Hodges, 1985). An infant or toddler will be distressed and will protest and then withdraw if supervision is unresponsive, insensitive and rigid or chaotic.

Today, the mothers of half the infants in the United States work outside the home. This concerns psychologists and parents because of the possible detrimental effects on these infants of separations from mother and experience in day care (Brazelton, 1986). Available data suggest that infants whose mothers work full time are somewhat more likely as one-year-olds to avoid their mothers after a brief separation and later to be less compliant with their mothers and more aggressive with their peers. This may affect both their emotional strength and thinking (Hobson, 2002).

- *In care situations, the absence of the mother leads children to develop a substitute relationship with the teacher, and to negotiate relationships with peers.*

Entry into the group at an early childhood centre has been represented as entry to a form of 'tribal culture' for which the child needs to learn the rules using 'primitive social impulses' to meet other children's aggression (Zimmerman and McDonald, 1995). In fact, we have limited information about what kind of social approaches, collaborative learning and lasting friendships can be set up in a stable childcare group, and what adults, parents and care staff, can do to foster the best and most beneficial experiences for the children (Bertram et al., 1996; David, 1996; Laevers, 2002). Interpretations may differ widely, differing in their attention to what the children can contribute to their own social development and learning (Bråten, 1996, 1998a; Bronfenbrenner, 1989; Eckerman et al., 1989; Fagot, 1997; Fiese, 1990; Guillaín and Foxonnet, 1990; Hay, 1994; Hock et al., 1984; Montagner et al, 1993; Ross and Lollis, 1989; Vandell and Wilson, 1987; Zaslow, 1980; Zahn-Wexler, et al., 1992).

Infants in the second year who were securely attached to their professional caregivers spent more hours per week in day-care, and came from a middle-class background. Their caregivers appeared to be younger and more sensitive during free play than caregivers with whom the infants developed an insecure relationship. Attachments of infant-caregiver dyads did not differ significantly in type from infant-mother or infant-father attachments. The quality of infant-caregiver attachment was independent of both infant-mother and infant-father attachments. Professional caregivers observed with a number of different infants did not

have the same attachment classifications to all infants with whom they were observed. The attachments were two-way, dependent on how each child responded to that person (Goossens and van IJzendoorn, 1990).

Secure attachment relationships, in which the child is valued, supported and cared for, influence what the child carries forward to new relationships (Fagot, 1997). A child benefits from friendships in three ways: the child retains positive social expectations, an understanding and use of the give and take (or reciprocity) of interpersonal exchange, and sense of self-worth and self-efficacy, or of pride. In other words, the child appears friendly, cooperative and confident. If attachment, or attention from closest persons, has been insecure or stressful, this predisposes the child to negative expectations and beliefs that give rise to mistrust, insensitivity, anger, aggression and lack of empathy that increase the chance of interpersonal problems in subsequent relationships. A few studies have suggested that the nature of children's attachment relationship to their mother strongly influences the relationship they develop with their teachers. That indicates that the child's emotional development is both a reflection of maternal care, and a factor in the making of new relationships. Once again, relationships are shown to be two-way links between persons (Elicker, Englund and Sroufe, 1992; Meltzer, 1984; Petrie and Davidson, 1995; Zahn-Wexler, et al., 1979).

- *Infants are attracted to same-age company, and seek engagement. Toddlers exhibit imaginative concern for one another's' feelings.*

From early infancy, infants enter into and enjoy interactions with both familiar and unfamiliar peers (Montagner, et al., 1993; Vandell and Wilson, 1987). Friendly exchanges with vocalisations, gestures and smiles, or cautious looks and signs of displeasure or distress can be observed from early months. There has been little detailed descriptive research on infant-infant communication, especially with infants under 6 months. As with their behaviours with parents, boys and girls are different in the ways they approach and respond to a companion of the same age. Commonly a pair of girls 'break the ice' quickly and attend closely to each other, exchanging expressive moves, smiles and vocalisations, whereas a pair of boys may prefer to attend to what they are each doing with objects, rather than to each other, or they show off in a 'bold' manner. A girl may help a boy to be more communicative, with friendly advances.

Toddlers are capable of sympathy for another young child's distress and the capacity for concern appears to develop with communication of imaginative thinking and cooperative play with role taking (Bråten, 1996, 1998a; Hobson, 2002). Sociability between infants is not dependent on the presence of toys (Hay, et al., 1983). At 6 and 9 months it was found that during free play infants spent more time in turn-taking exchanges or games with their mothers than with their siblings or peers, but the proportion social interactions was nevertheless greatest with peers. In the second year, infants are responsive to the social possibilities of a novel setting, imitating one another in moving about and handling objects, or in expressive displays, and creating joint activities by non-verbal communication (Nadel and Pezé, 1993). Coordinated joint engagement increases with age but even peers under one year can develop cooperative play with objects (Bakeman and Adamson, 1984; Eckerman, et al., 1989; Eckerman and Didow, 1988). Twins enjoy rich emotional interaction that can encourage social and cognitive development (Piontelli, 2002).

C.3 The Effects of Out-Of-Home Care Vary, Depending on the Quality of Care and the Age, Temperaments, and Individual Backgrounds of Children.

- *Young children's needs for company in acting, discovering and learning are complementary to their needs for nurturance.*

The different kinds of motives that even young infants have for communicating and sharing purposes and interests with different people have, we find, not been adequately studied, nor is there a sound scientific theory of the complex emotions that regulate friendships and that maintain a distance from unfamiliar persons whose communication may not be accepted by the child. Children form different kinds of relationship with different persons, even in early weeks of life, and quickly learn the differences between individuals. Their agency in the making of these relationships needs to be further explored by researchers, as does the link between emotional well-being and the development of thought and the child's understanding of meaning in the social world (Trevvarthen, 2001; Hobson, 2002).

What remains true in a broader consideration of infant's and toddler's emotional needs is that everywhere, no matter what the culture, the relationship of an infant with the natural mother is a privileged one, prepared for by spontaneous motivations on both sides, in child and woman. Its needs can be fully substituted by one or more other persons, if they are capable of the intimacy, care, affection and enjoyment of play that a happy mother can give without training. These conclusions are supported by such research as there is on the attachments of children under 3 to staff in childcare centres, and more especially to those

under one year. Very young infants do benefit from close affectionate care with one main caregiver, or a few caregivers with clearly defined roles. Loss of a person to whom an attachment has been formed can have lasting effects on self-confidence and sociability, the seriousness of which may not always be immediately obvious (Bowlby, 1969; Hundeide, 1991; Rutter, 1985).

Infant responsivity to and involvement of caregivers reflects the individual sensitivity of the caregivers and each relationship is unique, with features different from the infants' relationships with their mothers. The opportunities for communication and collaborative experience, and for young infants a calm and supportive environment, are important features of high quality care (Zimmerman and McDonald, 1995).

In one study, social and non-social behaviours of white, middle-class pre-schoolers in high, moderate, and low quality day care centres were contrasted. Children in high quality centres were more likely to interact positively with adults, while children in lower quality programs were more likely to engage in solitary play and aimless wandering (Vandell and Powers, 1983).

- *The information on effects of a mother's employment on her infant's growing self-confidence identifies a number of factors, including the age of the child.*

Data obtained by Belsky during Strange Situation assessments with one-year olds revealed that infants exposed to 20 or more hours of care per week displayed more avoidance of mother on reunion and were more likely to be classified as insecurely attached to her than infants with less than 20 hours of care per week. Sons whose mothers were employed on a full-time basis (greater than 35 hours per week) were more likely to be classified as insecure in their attachments to their fathers than all other boys, and, as a result, sons with 20 or more hours of non maternal care per week were more likely to be insecurely attached to both parents and less likely to be securely attached to both parents than other boys (Belsky and Rovine, 1988).

Full-time day-care children, whose mothers returned to work before they were nine months old, but not those in part-time day care, were found to display avoidance of the mother during the final reunion episode of the Strange-Situation procedure than did non-day-care children. The length of the daily separation appears to be an important determinant of day-care effects on infant-mother attachment (Schwartz, 1983).

Belsky (Belsky and Braungart, 1991) found that, contrary to propositions advanced by Clarke-Stewart (1989), and others, insecure-avoidant infants with extensive non parental care experience whimpered, fussed, and cried more and engaged in object play less in each reunion episode than their insecure-avoidant counterparts with less non parental care experience.

Relations between non maternal child care and ratings of maternal sensitivity and child positive engagement during mother-child interaction at 6, 15, 24, and 36 months were examined for 1,274 mothers and their children participating in the National Institute of Child Health and Human Development (NICHD) Study of Early Child Care. In longitudinal analyses that controlled for selection, child, and family predictors, childcare was a small but significant predictor of maternal sensitivity and child engagement. For the whole sample, including families who did and did not use childcare, more hours of childcare predicted less maternal sensitivity and less positive child engagement. For children who were observed in childcare, higher quality childcare predicted greater maternal sensitivity, and more child-care hours predicted less child engagement. The effects of childcare on mother-child interaction

were much smaller than the effects of maternal education but were similar in size to the effects of maternal depression and child difficult temperament. Patterns of association with childcare did not differ significantly for the children at different ages (NICHD, 1999).

C.4 Development at Different Ages and the Experience and Effects of Daycare.

- *The needs of children under 3 are different from those of older children at preschool.*

Young children need attuned adult companionship more than older ones, and childcare settings need to be planned, and staff trained, to assure this is normally available. Research has shown that children under three generally play more easily and with more creativity with mothers or caregivers than with peers, but toddlers in the second year, who know each other, can elaborate creative play with age-mates and these capacities develop rapidly. At 18 months the infant cannot sustain interaction with peer in the way that a 30-month infant can, and the younger child often seeks contact with the mother, or an alternative adult caregiver who can provide attention and companionship in play. Developmental changes occurring in the second and third year include the increased salience of age-mates in supporting separation from the mother and exploration of the environment in the context of sustained social interaction (Gunnar, Senior and Hartup, 1984).

The interim analyses of the EPPE Project of Kathy Sylva, aimed to assess readiness for school instruction, have addressed a number of key issues of practitioner and policy relevance. They indicate the important influence on school entry attainment of children's background characteristics (prior attainment and child, parent and home factors) and make it clear that any comparisons of pre-school centres that do not take these differences into account are potentially misleading. They show that pre-school centres do vary in their impact in children's thinking and learning. The interim analyses also suggests that pre-school experience has a positive impact on children's readiness for instruction at entry to school and may help to combat educational disadvantage (EPPE Project: The Effective Provision of Preschool Education (EPPE) Project. A longitudinal study (1997-2003) funded by the DfEE).

Indeed, most research on American and British preschool programs demonstrates that well-managed early learning experiences for children four years old and above have an immediate benefit for the children's cognitive and social development. Because of this, there is a strong case for investment in high quality early learning at this stage, on economic as well as social grounds. A question remains about the downward extension of these findings to under 3s. For this earliest period of development, many reservations have been expressed. There may be long term implications related to the time infants or toddlers have spent in different forms of day care. The evidence is mixed and it suggests that it might be valuable to institute some longitudinal studies, but their aim and design require careful planning. 'Impact' studies can cover a wide range of outcomes. Practitioners and policy makers may wish to consider if they value some outcomes more than others, and identify pertinent research evidence when planning practice, or seek to fund new appropriately designed research projects.

- *A wide perspective is needed to understand the effects of provision for out-of-home care for under 3s.*

Long-term follow up studies in the US on the benefits of high quality daycare have found increased employment, lower teenage pregnancy rates, higher socio-economic status and decreased criminal behaviour (Zoritch, Roberts and Oakley, 2000). There are positive effects on mothers' education, employment and interaction with children. Effects on fathers have not been examined. Few studies look at a range of outcomes spanning the health, education and welfare domains. Most of the trials combined non-parental day-care with

some element of parent training or education (mostly targeted at mothers); they did not disentangle the possible effects of these two interventions. The trials had other significant methodological weaknesses, pointing to the importance of improving on study design in this field. To date, all randomised trials have been conducted among disadvantaged populations in the USA. The extent to which the results are generalisable to other cultures and socio-economic groups has yet to be evaluated.

Scarr et al. followed children's behavioral adjustment 4 years after assessments of daycare centre quality (e.g. caregiver-child interactions, caregiver-to-child ratios) and of the home and family environment (e.g. parental stress, discipline). Participants included 141 school-age children (73 girls) and their employed mothers (91% Euro-American) who had made use of full-time childcare when the children were toddlers or pre-schoolers. Home environment factors and earlier behaviors were predictive of individual differences in adjustment 4 years later, particularly for maternal ratings of child behaviors. By contrast, indicators of centre quality were generally unrelated to mother and teacher ratings of behavioral adjustment. These results could be regarded as evidence for mother's having consistent views of their children's personality that did not take into account of areas of development unrelated to emotional 'adjustment' (Deater-Deckard, Pinkerton and Scarr, 1996).

In one study, day-care appeared to have a negative effect for secure children but had a positive influence for insecure children. For the secure group, children in day-care were more negative and avoidant at 42 months, and they were more combative and aggressive in kindergarten compared to the home-reared group. In contrast, day-care children who were insecurely attached were less withdrawn and more determined in their actions. Security of attachment during infancy predicted later adaptation for both day-care and home-reared children. Apparently the different effects of day-care at preschool age may not last in later years (Egeland and Hiester, 1995).

- *Temperament, behaviour and learning of under 3s is affected by both childcare and family factors.*

To evaluate child-care effects on young children's self-control, compliance, and problem behaviour, children enrolled in the NICHD Study of Early Child Care were tested and observed in the laboratory and in childcare at 24 and 36 months, and mothers and caregivers completed questionnaires. Results showed that quality of mothering is a stronger and more consistent predictor of child outcomes than variation in quality of childcare. There is little evidence that early, extensive, and continuous care was related to problematic child behaviour, in contrast to results from earlier work. Child-care quality was the most consistent predictor of child functioning, but the effects of child-care variables were weak. Virtually none of the anticipated interactions among child-care factors or between them and family or child measures proved significant (NICHD Early Child Care Research Network, 1998a, b).

Studies suggesting that family factors predict developmental outcomes more strongly for children reared principally by their parents than those with extensive early child-care experience stimulated the examination of the differential prediction of child outcomes using a subsample of families participating in the above National Institute of Child Health and Human Development (NICHD) Study of Early Child Care. No evidence was found that family factors predicted outcomes differentially for these 2 groups. Their influence of the family on children's development is not changed by large differences in the amount of

daycare.

Results of a study of Montreal day-care centres of varying quality point to the positive effects of longer exposure to high-quality group day-care (increased interest and participation), and the negative effects of longer exposure to low-quality centres (increased anger or defiance). Positive or negative family characteristics contributed further to these effects (Hausfather, Toharia, LaRoche and Engelsmann, 1997).

Baseline data from the Canadian National Longitudinal Survey of Children and Youth were used to evaluate the associations between childcare arrangement and poor developmental attainment (PDA) for 521,800 children aged 2 to 3 years. Children were grouped by the predominant type of arrangement: care by someone in the child's own home, in another home (family child care), at a child care centre, or none (child care exclusive to parents). When socioeconomic status, biological factors and maternal immigration were controlled, family dysfunction, hostile parenting and low neighbourhood safety were correlated with poor development, and positive parent-child interaction decreased the odds that the child's development would be classified as 'poor'. Centre childcare arrangements were beneficial to development of most children, but some children with depressed mothers did not develop well when looked after in childcare centres. Findings suggest that the effects of childcare arrangement on child development depend on factors that influence a child's home environment (To, Cadarette and Liu, 2000).

A study by the George Washington University Medical Centre found no relation between maternal work status and the quality of infants' attachments to their mothers, indicating that early resumption of employment may not impede the development of secure infant-mother attachment. A significantly higher proportion of insecure attachments to fathers in employed-mother families was found for sons but not for daughters. Joint examination of the infants' attachments to both parents revealed a trend suggesting that in employed-mother families, boys were more likely to be insecurely attached to both parents than were girls in employed-mother families or infants of either sex in non employed-mother families. These patterns are discussed in light of differences in maternal and paternal sex-typing behaviour and of evidence suggesting boys' vulnerability to psychosocial stress (Chase-Lansdale and Owens, 1987).

- *Given the difficulty of funding and organising sufficiently responsive and intimate personal attention in an out-of-home place, very young children of employed mothers may best be cared for at home.*

Two groups of toddlers and their caregivers were observed at the Margaret S. Mahler Observational Research Nursery on different days. In one group (the caregiver group) the children of full-time employed mothers were cared for at home by paid caregivers. In the other group (the mother group) the children were cared for full-time by their actual mothers. These two groups are compared in terms of the children's expression of affect, interest in peers, identifications, separation protests, signals of communication, and symbolic functioning. Recent ideas about the construction of a child's representation of his or her mother help understanding of how the child experiences multiple caregivers and forms new relationships (Nachman, 1991).

The large body of research on the socio-emotional development of infants gives clear support to common wisdom. No infant under 6 months can gain confidence and understanding in a large group of infants with a small proportion of caregivers. Infants require consistent and close adult attention, for rest, protection and nurturance, and to

benefit from playful communication. The intimate playful one-to-one interactions in which awake infants show their developing powers for intricate rhythmic play and sharing of experiences of objects and events are only possible when both infant and adult are affectionate and confident (Stern, 1985/2000; Trevarthen and Aitken, 2001). Moreover, even infants under 6 months are affected by the familiarity and consistency of the environment. Beyond six months, the identity and interest of the partner becomes even more critical as the infant tries to grasp sharing of rituals and imitates expressive actions (Bowlby, 1958; Ainsworth, et al., 1978; Hobson, 2002). Thus beneficial care for infants in the first year will require an environment that resembles a home with affectionate and reliable company and periods of quiet, free of conflict. Aggressive encounters can arise between poorly supervised infants, and lead to violent protest or depressed withdrawal.

C.5 Relations Between Peers Become Lively and Important at the End of Infancy.

- *During the first 3 years, infants and toddlers change in natural sociability, and their capacity to form peer friendships in independence of adult care and oversight.*

At 18 months an infant cannot sustain interaction with peer in the way that a 30-month child can. The younger child wants contact with the mother, or alternative adult caregiver. When 18- and 30-month-old children were observed where they had to leave the mother to play with attractive toys, the presence of an age mate encouraged them to go from the mother and enter the playroom at both ages. But, for the 18-month-olds, the presence of the peer also shortened play bouts, increased unoccupied/self-solace behaviour and keeping in contact with the mother. The 30-month-olds, however, engaged in friendly and cooperative social interaction with the other child. Evidently, developmental changes in the second and third year increased attraction to age mates, supporting separation from the mother, and led to collaborative exploration of the environment in shared play (Hay, 1994). Presumably these typical developments depend on the early social experiences of toddlers, and especially their early contacts with peers while supervised by helpful adults (Hay, et al., 1983). Children with more experience in child-care settings with other children present were observed to be more positive and skilled in their peer play in childcare (Gunnar, Senior and Hartup, 1984). The history of emotional attachment to the mother will, of course, also be a factor in a 3-year-olds readiness to make friends and cooperate in play and learning with peers (Fish and Belsky, 1991; Kochanska, 2001).

These findings suggest that opportunities for play with peers should be matched to the child's established relationships, developmental stage and temperament - with play conditions, length of play periods, etc. following the child's preferred pattern.

- *Positive, responsive caregiver behaviour is the feature of childcare most consistently associated with friendly and skilled peer interaction in childcare.*

Sociability of two- to three-year-olds with peers was assessed using mother's and caregiver's ratings, from observations of children with their peers in childcare, and in dyadic play with a familiar peer. Children with more experience in child-care with other children were more positive and skilled in their peer play in childcare, although their caregivers rated them as more negative with playmates. Child-care experiences were not associated with mothers' ratings of peer competence or with observations of dyadic play with a friend. Maternal sensitivity and children's cognitive and language competence predicted peer competence across all settings and informants, suggesting that family and child-care contexts may play different, but complementary roles in the development of early emerging individual differences in peer interaction (NICHD, 2001, see Fagot, 1997).

C.6 Boys and Girls Differ in Responses to Care, and Adults Communicate with Them Differently. Differences of Temperament and in the Behaviour of Boys and Girls in Caregroups Indicate That Children Must Be Respected as Individuals

- *Differences in communication of boys and girls reflect motives of both infants and adults, and girls may develop more quickly at first.*

In studies of infant communication in the first year, and research on infant-mother and infant-father communication with and without objects, clear male/female differences have emerged, with girls being more advanced in communication and psychological 'separateness', while boys tend to be more oriented to investigation of objects, and eliciting or requiring more help with their communication.

Male and female infants appear to differ in their motivation for communication and this is reflected in their use of imitation to make contact with their peers (Fiamenghi, 1997). Some parents of boys exhibit more imitation of the infant at 2 or 3 months than parents of girls at the same age, but this difference is less around 18 weeks. The male infants seem to catch up with the girls by this time, and this is consistent with other findings that the development of communicative gestures of girl infants is a few weeks ahead of that of the boys (Trevarthen, et al., 1999). Boys at 6 months have greater difficulty than female infants keeping happy during normal and 'still face' confrontation with the mother, and the mother makes more effort to be in synchrony with a boy (Murray et al., 1993). These findings fit with evidence that maternal post-natal depression is more likely to have lasting consequences for development in a boy.

Toddlers are capable of taking on social attitudes from the community around them, and this is assisted by verbal labeling. Gender-stereotypic play with peers is both attractive and a potential factor in friendships and exclusion (Fabes, et al., 1997; Killen, et al., 2001; Theimer et al., 2001).

We have found little research on differences in the ways male and female staff in care centres treat boys and girls, or, indeed, on participation of males in care of children under 3.

- *Male infants and toddlers are more sensitive to quality of care, to mothers' employment, and to father's behaviour.*

Male babies are somewhat more vulnerable to differences in the quality of care taking, while, for girls, maternal personality, rather than care taking, showed a stronger relationship to security of attachment. Mothers' prenatal and postpartum depressive symptoms have been associated with problem behaviors and lower competencies for boys. In contrast, the emotional quality of early interactions with mothers predicted problem behaviors in girls (Murray et al., 1993).

Early risk for 'under control' of behaviour is present in the toddler period among sons of alcoholic fathers, but not among daughters, and behaviour problems in boys tend to persist until school age.

Research over several decades confirms that, at least in early childhood, boys are more vulnerable to disruptions in care than girls, and this may explain why maternal employment has more pronounced effects on boys as infants and toddlers. Indeed in some studies girls appear to benefit from the enhanced self-esteem and self-confidence of a working mother, whereas sons do not. In a recent study, significantly more insecure attachments to fathers

were found for sons in employed-mother families, but not for daughters. The boys were more likely to be insecurely attached to both parents than were girls in employed-mother families, or infants of either sex in non employed-mother families. These patterns may reflect differences in mothers' and fathers' behaviour towards sons and daughters, and effects on father's behaviour when the wife is working, but boys' vulnerability to psychosocial stress is probably a factor (Belsky and Rovine, 1988; Chase-Lansdale and Owen, 1987).

- *Children's different temperaments and self-confidence affect their behaviour in care groups and relations to teachers.*

Inhibition, or withdrawn behaviour in contact with others, was assessed in 144 Swedish children when they averaged 16 months of age using a composite measure of sociability toward strange adults, non-involvement in peer play, and parental ratings of fearfulness. One and 2 years later, the children were assessed again, both at home and in the alternative care settings. Results showed that individual differences in 'inhibition' were stable over the 2 years of the study. Shy children engaged in less high-quality peer play both at home and in the alternative care settings, and they were less able to play alone in their mothers' absence. At the same time, but not in subsequent ratings, inhibited children had more difficulty adjusting to out-of-home care. Inhibition was not itself affected by out-of-home care experiences, and there were no sex differences in inhibition (Broberg, et al., 1990).

Teachers in another study rated self-esteem positively, and they identified three components: confident approach, adaptability to routines, and dealing with failure/frustration (Beauchamp, 1995). A sense of self-worth and of worth, knowledge and skill in the opinion of others, which is communicated clearly in the expressive behaviour of a child, is an important component of 'disposition to learn from infancy (Harter, 1988; Juhasz and Munshi, 1990; Trevarthen, 2001, 2002). Children show wide differences in readiness to make social advances, or to benefit from the company of strangers, adults or children (Fabes et al., 1997; Fuchs-Beauchamp, 1996).

- *Sex differences in the children's motivations interact with gender stereotyping by adults.*

A study of reactions to assertive and communicative acts of toddler boys and girls by Fagot et al. coded assertive acts and attempts to communicate with adults. No sex differences were observed at 13 to 14 months, but adults attended to girls' assertive behaviors far less of the time than to boys' assertive behaviors. They attended more to girls' less intense communication attempts and to boys' more intense attempts. When a group of the same children were observed in toddler playgroups no more than 11 months later, there were sex differences in behaviour. Boys were more assertive and girls talked to teachers more. Now teachers no longer differentiated their responses to boys and girls. Peers reacted more to boys' assertive behaviour than to similar behaviour of girls. Caregivers may use gender stereotypes to guide their reactions to infants because infant behaviour is ambiguous. For the toddlers, behaviour had become more defined, and caregivers reacted to the behaviors. By using the sex stereotype to guide their reactions to younger children, the caregivers may have perpetuated the stereotype. It is also possible that differences between the behaviours of boys and girls at one year were not coded by the observers, but were detected, and reacted to differentially, by the playgroup staff (Fagot, Hagan, Leinbach and Kronsberg, 1985).

The hypothesis that differences in preschool age boys' and girls' adjustment is partially

influenced by sex differences in temperament and interactions with same-sex peers has been examined (Fabes, et al., 1997). Analyses revealed that individual arousability and same-sex peer play interacted to predict problem behaviors, and there were sex differences. For boys high in arousability, play with same-sex peers increased problem behaviors. In contrast, arousable girls who played with other girls were unlikely to show problem behaviors. The interaction of arousability and same-sex peer play predicted peer status of boys, but not of girls.

C.7 The Relation of Early Child Care to Cognitive and Language Development Has Been Researched, Principally in the US -- The Findings are Inconclusive.

- *Centre-based care appears to have advantages, but differences from maternal care may be slight.*

Children from 10 sites were followed from birth to age 3 to determine how family and childcare environments relate to cognitive and language development. The overall quality of childcare, and language stimulation in particular, was consistently but modestly related to cognitive and language outcomes at ages 15, 24, and 36 months. After adjusting for childcare quality, experience in centre-based care was associated with better outcomes than was participation in other types of care. The amount of time children spent in care was not related to outcomes. Children in exclusive maternal care did not differ systematically from children in childcare. Language stimulation predicted subsequent cognitive and language performance 9 to 12 months later. Although children in centre care at age 3 performed better than children in other types of care, earlier experience in child care at home (child minding) was associated with better performance at age 3 than was experience in other types of care. The relations of childcare variables to outcomes did not vary consistently as a function of family income, quality of home environment, child gender, or ethnic group (NICHD, 2000).

- *Child-care quality has a modest long-term effect on children's patterns of cognitive and socioemotional development at least through kindergarten, and in some cases, through second grade.*

Differential effects on children's development were found for two aspects of child-care quality. Observed classroom practices were related to children's language and academic skills, whereas the closeness of the teacher-child relationship was related to both cognitive and social skills, with the strongest effects for the latter. Moderating influences of family characteristics were observed for some outcomes, indicating stronger positive effects of child-care quality for children from more at-risk backgrounds. These findings contribute further evidence of the long-term influences of the quality of child-care environments on children's cognitive and social skills through the elementary school years, and were considered to be consistent with a 'bio-ecological' model of development that considers the multiple environmental contexts that the child experiences (Peisner-Feinberg, et al., 2001).

Childcare in well-run centres appears to be an important resource for helping children from difficult, at-risk backgrounds, giving an improved experience for the child and also possibly giving significant respite and encouragements to parents in trouble.

- *A system of fixed curricular standards and regular formal assessment of children's learning is inappropriate for under 3s.*

Preliminary reports from Lesley Abbott at Manchester and a data survey by Chris Pascal and Tony Bertram on preschool curriculum and assessment in 20 countries, indicate that most countries have no intention of codifying a curriculum for under 3s, or introducing standard assessments.

C.8 Studies in Other Cultures.

- *Research in different cultures on the learning/teaching process called 'socialisation' shows similarities and important differences.*

The Six-Cultures Study, (Whiting and Whiting, 1975) focuses first on how parents treat their children, and how they view them. Definitions of positive developmental outcomes vary across cultures. They have different expectations of childhood. The social and physical contexts in which families are embedded also affect parent-child relationships. The 'goodness of fit' between a child and their social world influences developmental outcomes (Bronfenbrener, 1979, 1989; Chavajay and Rogoff, 1999; Rogoff, 1990; Whiting and Whiting, 1975; Whiting and Edwards, 1992).

A study of the quality of centre care in The Netherlands showed that this compared favourably with that of other European and North American countries. Better quality of centre care was associated with older caregivers who had less professional education, fewer years of experience, and who worked fewer hours per week. Communication and attunement between caregivers and parents did not appear to be important for quality of care. The staff formed good relationships with the children directly (van IJzendoorn, et al., 1998). The findings of this study, if supported for other communities, have important implications for recruitment of personnel, and for the kind of training planned.

Twelve pre-schools in Bahrain were assessed through observations of child and staff behaviors utilising the Early Childhood Environmental Rating Scale (ECERS) and the ECERS preschool assessment categories, which include: (1) personal care routines; (2) furnishings and display; (3) language-reasoning experience; (4) fine and gross motor activities; (5) creative activities; (6) social development; and (7) adult needs. The results showed higher scores in all seven categories for children in educationally-oriented pre-schools than for children in care-oriented pre-schools. Compared to care-oriented pre-schools, educationally-oriented pre-schools provided a greater quantity and variety of materials, more adult involvement and dialogue, more space to explore and experiment, more free play time, more creative activities, and better working conditions for teachers. The research supports the evidence associating quality indices in childcare environments with benefits for early learning (Hadeed and Sylva).

Seventy-seven mother-caregiver pairs in Israeli kibbutz were interviewed to evaluate their perception of children 18 months to 3 years old that they cared for, and their dyadic relationships with the children. The mothers, as compared with caregivers, presented more elaborated and more positive descriptions of their children, and perceived them as more developed. Mothers' emotional tone in describing the child was more ambivalent, both more anxious and at the same time more enthusiastic. That is, mothers and caregivers had different representations of the same child (Ben-Aaron, Eshel and Yaari, 1999). Apparently discussions with parents will have to allow for and explore different understandings of the child, aiming to learn and draw benefit for the child from the differing perspectives and relationships.

The experiences of 84 German toddlers (12-24 months old) who were either enrolled or not enrolled in childcare were noted from the time they woke up until they went to bed. The total amount of care experienced over the course of a weekday did not differ according to whether or not the toddlers spent time in childcare. Although the child-care toddlers received lower levels of care from care providers in the centres, the mothers of the child-care group engaged them in more social interactions during non-working hours than did the mothers of home-only toddlers, which suggests that families using child care provided

different, perhaps compensatory, patterns of care than families not using child care. Child-care toddlers experienced high levels of emotional support at home, although they experienced less prompt responses to their distress signals. Mothers' ages were unrelated to the amounts of time toddlers spent with them, but older mothers initiated more proximity (Ahnert, Rickert and Lamb, 2000). The differences between childcare out of home and by the mother at home do not necessarily indicate that either one is necessarily 'inferior' or less valuable.

A study of five Italian teachers examined how they spoke to young children in a day-care centre and particularly how they adjusted their language, according to children's age and to size of groups in six different sessions with children 0-3 years. Results show significant differences in structure and function of language according to children's age and group size (Morra Pellegrino and Scopesi, 1990). This is clearly an under-researched area with potential importance for teacher training and for understanding children's needs in communication.

Swedish children were followed from their first year of life up to the age of 8. Time of entrance into day-care predicted children's cognitive and socioemotional development, controlling for sex and home background. Children with early day-care (entrance before the age of 1) were generally rated more favourably and performed better than children with late entrance or home care. There was a tendency for early centre care to predict a more favourable outcome than other care (Andersson, 1989).

C.9 The Daycare Experience is for Parents, Too.

- *Day care for very young children is not likely to result in serious emotional disturbance, but it is not without risks and effects, which will carry over to the home.*

The effects daycare for children 0-3 are less researched than for pre-school ages, but Melhuish et al.(1990a, b) found negative aspects, and emphasised the issue of 'quality' aspects of the daycare experience for younger children. Lamb and Brazelton have examined the pros and cons and insisted on the balance to be reached in nursery-like contexts between possible difficulties with attachment and possible gains in social competence. Rutter has reviewed evidence of the social and emotional sequelae of day care. He concludes that although day care for very young children is not likely to result in serious emotional disturbance, it would be misleading to conclude that it is without risks or effects. Much depends on the quality of the day care, and on the age, characteristics, and family circumstances of the child, as we have found from other studies reviewed above (Brazelton, 1986; Lamb, 1996; Melhuish et al., 1990a, 1990b; Rutter, 1981).

In a detailed study of play behaviour, forty-eight 2 year old toddlers were videotaped interacting with their mothers and with a same age, same gender peer in the child's home, using a standard set of toys (Miller-Gray, 1997). A preliminary analysis suggested that girls engaged in more solitary and social pretend play, and cooperated more than boys. Forman and Kochanska (2001) found that girls imitated more in a teaching/learning task with their mothers. In the Miller-Gray study, toddlers' most complex, highest level, and longest duration of Social Pretend Play was with mothers, as compared to play with peers, and communication was richer with a higher level of engagement with mothers. All toddlers were less successful influencing peers than mothers were. Home reared toddlers engaged in more Associative Social Pretend, Social Influence Attempts, and were Controlled and Verbally Controlled more by mothers, than other groups -- home reared toddlers with peers, day care toddlers with peers, and day care toddlers with mothers. Day care toddlers demonstrated more Resisting, Cooperative Strategies, and Unsuccessful and Nonverbal Social Influence Attempts, than home reared toddlers. Day care toddlers were the least successful in influencing peers and resisted mothers more than all other groups.

- *Parents are often anxious at onset of daycare for the child, and like to be involved. The child is becoming part of new companionship group, negotiating sociability and relationships.*

All parties are affected by the change of the child's world. Parents think that daycare affects the child more than themselves, but if parents are involved in the work and planning at the daycare centre, this raises their self-esteem and that raises the child's self-esteem (Walley, 1997). This is one of many reasons in favour of daycare that involves parents actively. A child carries over relationship formats from home to nursery. In most cases developmental disharmonies rather than actual stress reaction occur in the transition to daycare. A dual socialisation is taking place, which will also affect home life (Dalli.2000).

Using notions from temperament theory, children's response to starting preschool has been discussed in terms of 'adjustment' to both peers and centre adults, as well as to the new environment. A more social-psychological perspective views entry into an early childhood setting as an experience of socialisation. Children learn special competencies in the 'dual socialisation' of family and institution.

A child's perspective on entry into early childhood settings has only very recently been directly investigated in the work of Ingrid Pramling and Marita Lindahl in Sweden and Sven Thyssen in Denmark

C.10 Parents' Ideas and Experience Can Benefit from Consultation with Caregivers.

- *Support for parents should include both sufficient childcare and information on children's needs and the effects of deprivation of care.*

Beldon and Russonello (1996) conducted 8 focus groups among parents of children under 3 and expectant parents, to explore their knowledge and perceptions of child development before age three. They came to the following conclusions, and recommendations:-

Most parents do not see the full significance of early childhood and are unaware of the depth of their influences on their babies' long term development. Concerning parents' attitudes and knowledge in three developmental domains: intellectual, emotional and social, parents believe they have the most effect in the child's emotional development. They tend to see social development as less serious and an area where the child can 'catch up', and they feel less able to assist intellectual development compared to other areas of childhood development. They describe intellectual development as a process of absorption - rather than the creation of more capacity, or development of cognitive abilities. Some say that an unstimulating environment does not deny a child intellectual development, because much of the intellectual self is determined by nature not nurture. The suggestion that consistency or a limited number of caregivers matters makes some parents, particularly those with multiple childcare arrangements, uncomfortable, guilty or nervous. These feelings may potentially lead to some parents rejecting the notion that caregivers can have important relationships with babies. Some parents believe that if the child has a stable home-life, whatever happens during the day with childcare may not be very important.

C.11 Keeping a Bond Between Family and Child Care Group. Caring for Differences and Family Problems.

- *Parents' diaries and discussions and reviews with educators enable shared care of the child, with exchange of views on development.*

During the under-three years, parents and children in Knightsridge Family Support Project observed by Dunlop and Grogan (1999), developed together. As social opportunities, the focus and developing knowledge about their own child's learning, opportunities to extend their own knowledge base, and effective communication with other parents and professionals grew, so did the self-esteem of the parents and the well-being and involvement and self esteem of the children.

Parents, children, educators and the researchers have collaborated in this continuing study to explore very young children's occupations, pre occupations and learning. Through parents' diaries insights have been gained into their daily lives, the children's patterns of learning, the parents' images of childhood, the transition to parenthood, the ways they respond to their children and their hopes and expectations for them . Schema observation influenced the narratives parents constructed of their children's learning and the ways in which they and educators provided for them before they entered formal education (Cortazzi 1993). These biographies of children's learning were narrated by parents, developed together with educators, and provide a different insight into narratives of childhood (Dunlop and Grogan, 2001).

The Pen Green Centre in Corby has established a strong working relationship with parents for children from a wide range of backgrounds, some with difficulties (Walley, 1996). Documentation, in written and photographic form and by video, of individual children's progress and developing interests has proved invaluable (Arnold, 1997, 1999). The principles of Experiential Education (Laevers, 2002) that encourage researchers and teachers to pay attention to all facets of a child's experience, socio-emotional and intellectual, have influenced the Pen Green work in its attempts to help resolve children's feelings of alienation and loss of self-confidence.

- *The quality of relationships of the child with care providers and parents are both important.*

A longitudinal study by Melhuish et al. of the Thomas Coram Research Unit, University of London has followed two-parent families and their first-born child. There were three groups of dual-earner families using relatives, child minders and nurseries for day care and one group of single-earner families. At 18 months of age children in the study were observed in the four types of childcare setting. The data from the detailed observations were used to compare the children's interactional experience. The results indicate marked variation in the quality of children's experiences between different childcare settings. Lamb agrees that the effects of out-of-home care vary depending on the quality of care as well as the characteristics of individual children, including their age, temperaments, and individual backgrounds (Lamb, 1996; Melhuish, et al., 1990a).

Although substantial controversy persists, the accumulated evidence suggests that non-parental care does not necessarily have either beneficial or detrimental effects on infants and children, although it can have such effects. In some circumstances, care providers establish relationships with children that have significant beneficial effects on development. Care of poor quality is associated with behaviour problems, including aggression and non-compliance (Lamb, 1996).

- *The organisation of the environment for very young children can make a difference to the interaction between adult and child and child to child, so affecting the quality of the care provided.*

A Swedish study by the Environmental Psychology Unit, Lund, examined the influence of different environmental features at nine daycare centres on children's emotions in relation to their individual traits. Analysis revealed that the 'activation level' and the 'control of the behaviour' were related to the individual traits of the children, whereas the 'directedness' and the 'hedonic tone' or enjoyment of the behaviour were related to the environment and the situation (meal or free play). Of special interest is the result that 'extrovert' (outgoing) children displayed higher levels of control than the more 'introvert' (withdrawn) children. The most important quality of the physical daycare environment was 'unity', whereas 'intensity' and 'familiarity' were to most salient qualities of the social environment (Laike, 1997).

- *Changing ideas on the 'ideal' family have influenced research on the family and socialisation.*

The usual focus is on the mother-infant relationship. Within the family parents are seen as the primary agents of socialisation influencing, directly and indirectly, how the child acquires values, skills and behaviours that are necessary for their development as members of a particular society. Different models give most attention to inherent forces in child, the child's training, discipline to restrain primitive 'antisocial' impulses, or the child as an active agent in socialisation with reciprocal interactions in the family and reflecting the ways in which parents and children influence each other. Children and parents modify each other's behaviour and the physical and psychological characteristics of the children can certainly influence parental behaviour (Sameroff, 1987). Styles of parenting have been described in terms of dimensions such as 'warmth-coldness', and 'permissiveness-restrictiveness', but it is misleading to classify parental behaviour along single dimensions. Parental styles combine aspects of emotional relationships and control (Sears et al., 1957; Baumrind, 1991).

Family discord has more significant effects on children's emotional health than family break-up through divorce in itself (Rutter, 1981; Fergusson et al., 1992). The relationship of a young child to a new sibling depends on a number of factors, such as whether the mother talks to child about the new baby, and the individual temperament of the child. Even young infants can play a subtle and varying part in triangular relationships (Dunn, 1988; Dunn et al., 1987).

C.12 Warm Relationships are Both a Product and a Source of Benefits in Quality Childcare Groups.

- *Consistency in all kinds of friendships, at home and in care, are important in the active well being and mental growth of the young child.*

As Dunn and Kendrick showed, children's relationships with, and affection for, other family members besides parents, such as siblings, and grandparents, are important in development, though other factors of the broader social context such as the economic and social conditions of the family, as well as children's temperament, affect how well parents cope and provide for the child's needs for companionship (Dunn and Kendrick, 1982).

Belsky (1984) stresses sources of influence on the quality of the parent-child relationship that he considers to be the key element: parental personal psychology, mental health, their internal representations of relationships; the social network, relatives and friends; and

temperamental characteristics of the child, easy or difficult. He views the child as fundamentally dependent on secure attachment to parents, especially to the mother. He has reported that 20 hours or more in daycare may be associated with patterns of insecure attachment (Belsky, 1988), but Clarke-Stewart (1988) suggested that factors other than the long separation from the mother might be influencing this outcome. In another study emotional availability in infants' relationships with significant caregivers was rated over a nine-month period. Infant responsiveness to and involvement of caregivers was linked to individual sensitivity. Each relationship appeared to be unique, and not based on the nature of the infants' relationships with their mothers (Zimmerman and McDonald, 1995).

- *Prosocial behaviours at preschool are associated with security with the teacher in toddler care.*

A follow-up study of 4-year-olds enrolled in child care as infants by the Graduate School of Education, University of California, Los Angeles found toddler security with the teacher was associated with less hostile aggression and more complex peer play and more gregarious behaviors.. Dependence on teachers as a preschooler was associated with social withdrawal and hostile aggression. Toddlers whose relations with the teacher had been warm were seen to be popular with their peers. Preschoolers who had poor intimacy with the teacher had simpler peer play, and teachers rated these children as less careful, less friendly, and more difficult (Howes, Hamilton and Matheson, 1994). Melhuish et al. (1990a, b) found that, in various types of childcare up to 3 years, quality of daycare provision, staff ratios, training and experience of caregivers had effects on children's attention, affection, vocalisation and aggression.

C.13 Institutional Philosophy and Belief in the Child's Fundamental Interests.

- *Approaches to daycare which assume the child to be either autonomous or simply impressionable cannot provide appropriate companionship for the child.*

Like parental expectations and assumptions (Goodnow, 1984; Goodnow and Collins, 1990), caregivers' and teachers' approaches to organised childcare rest upon an underlying philosophy or theory of child development, and on notions of what is important, priorities in achievement, ideas concerning the influences that the environment can have upon the developing child, and the channels through which this influence is received. Nevertheless, all the different ways of conceiving and managing young children's lives are advanced or frustrated, more or less profoundly, by the natural expressions of vitality and emotion of the child, which are reacted to intuitively, not rationally, by adults.

The achievements of high quality care confirm the child's need to initiate both social and intellectual experiences, and to integrate them in personal mastery within the culture, or cultures, of a community (Bruner, 1996; Bruner and Haste, 1987; Edwards et al., 1998; Vygotsky, 1978) Caregivers must approve this initiative of the self-confident and happy child, and work with it.

Vygotsky and Bruner have used the image of 'scaffolding' to explain how an adult may support a child's efforts to do things and experience (Wood, Bruner and Ross, 1976). This image should not be taken to support emphasis on structured instruction to boost the child's efforts to discover and understand, which may not sufficiently respect the active and exploratory initiations of the child and the importance of a genuine shared understanding of concepts before the child can grasp new ideas and skills.

Children demonstrate what Margaret Donaldson called 'human sense', they give meaning to their world and this meaning is 'context embedded', part of the experience of, and imaginative reflection on, live natural situations in company of interested others. Ideally, there is contextual and interpersonal meaning for the child in everything he or she is doing. Adult ideas and established principles, for example about facts and ethics, about formal principles of thought or systematic procedures for solving problems, are not always sensible or useful to the child (Bruner, 1986; Donaldson, 1995; Vygotsky, 1978; Wood, Bruner and Ross, 1976).

- *Support of friendships and creative projects by communication in a stable group is beneficial for infants and toddlers.*

Scientific observation confirms that an infant is naturally motivated to discover, create, and communicate intimately, and to form collaborative relationships, that meaning is acquired by mutual interest, and that the child's emotional health is tied up with a natural sense of pride in knowing and doing that seeks appraisal from others, that withdrawal is associated with loss of self-esteem. This knowledge of the nature of childhood, modified by common experience obtained from direct involvement with children, must be the foundation for sound practice in learning and teaching, in early childhood, when intuitive factors of motivation are at their strongest. (See Section B).

Most available evidence on day care suggests that the personal characteristics and self-confidence of the caregiver, and the intimacy and consistency of their relation to the child, as well as to the family of the child, are the key components of high-quality care, set within the behaviour of the companionship group at the place of care information (Edwards et al., 1998; Malaguzzi, 1993). As primary health care providers, nurses, for example, can educate parents, caregivers, administrators and policy-makers concerning the broad array of day-care features, including caregiver characteristics that should be valued, and the needs of care giving institutions and staff that should be provided for (Kuhns and Holloway, 1992). Preschool teachers can give expert attention of a complementary kind to the early motives for investigative and collaborative learning, and advise on activities for children under 3.

C.14 Behaviour and Special Skills of Staff in Childcare.

- *The quality, not the quantity of teacher talk influences play and both social and cognitive learning.*

Adult-child communication, how it supports mutual interest and collaboration, determines the potential of any educational context, and this applies from infancy (Bertram et al., 1996; Pascal and Bertram, 1997).

The nature of teacher talk in early childhood classrooms and its relationship to children's play with objects and peers during free play was examined in a study of 89 boys and girls enrolled in three early childhood programs. Although previous research suggests that high-level teacher talk should be related to high-level play with objects, the results indicated the opposite, and that high-level teacher talk was unrelated to children's play with peers (Wilcox-Herzog and Kontos, 1998).

An investigation in Italy observed how caretakers adjust their language according to children's age and to size of groups. Five Italian teachers were observed, each during six different sessions with children between 0 and 3, and in groups ranging in size from 7 to one. Language was tape-recorded during free-play sessions of ten minutes. Transcripts were analysed according to structural features (syntactical complexity, redundancy, type-token ratio, speed) and functional features (proportion of utterances with different purpose: control and organization of child behaviour, empathy, conversation and teaching). Teachers varied the structure and function of their speech according to children's age and group size (Morra Pellegrino and Scopesi, 1990).

Directiveness in teachers' language input to toddlers and preschoolers in day care. was examined in the interactions of day care teachers with toddler and preschooler groups in the contexts of 'book reading', and 'play dough'. Book reading was characterised by

significantly more behaviour and response control and less conversation control in comparison with the play-dough activity. Correlations between teachers' directiveness and child language productivity indicated that behaviour control and turn-taking control were associated with low levels of productivity, whereas conversation control was associated with the highest levels of productivity (Girolametto, Weitzman, van Lieshout and Duff, 2000).

- *Discipline for misbehaviour has to be consistent, measured and attentive to the child's responses.*

A study of teacher discipline and child misbehaviour in day care by Arnold et al. at Amherst was suggested by the observation that day-care centres provide an ideal, underused setting for studying the developmental processes of child psychopathology. The influence of day-care teachers' lax and over reactive discipline on children's behaviour problems was examined, as was the influence of children's behaviour problems on teachers' discipline. Participants were 145 children and 16 day-care teachers from 8 classrooms in a day-care centre for children from low-income families. Teachers' laxness strongly influenced child misbehaviour, and child misbehaviour influenced both teachers' over reactivity and laxness. Teachers' over reactivity did not influence child misbehaviour (Arnold, McWilliams and Arnold, 1998).

- *Personal characteristics of caregivers are important for young children.*

Kuhns and Holloway reviewed research on characteristics of caregivers that are found in high-quality day care and describes how these factors facilitate optimal development in young children, and drew implications for nursing practice at the family, community, and national levels (Kuhns and Holloway, 1992).

C.15 Staff Training and Codes of Practice.

- *Attention to individual needs of children requires experience.*

Joint play with established expectancies supports children's conceptual development and their sense of collaboration depends on attachments, or ways of sharing companionship and play, carried over from family to nursery staff. Research has found that infants and toddlers can extend the companionship relationship they have with their mother to their relationship with the daycare keyworker, but this new relationship will be different and unique (Petrie and Davidson, 1995; Zimmerman and McDonald, 1995).

- *Special staff training is required for useful and supportive intervention programs. Caregiver/teachers for 0-3s benefit from training in how to relate to children*

Infants enjoy and gain from teachers who can participate in discovery and collaborate in tasks, supporting the child's impulses to create and investigate (Pascal and Bertram, 1997). This is why experienced preschool teachers and playgroup leaders can be highly effective with infants and toddlers, using their communicative skills. The important distinction is between curriculum driven instruction and collaborative learning in communication, not that between education and care (van IJzendoorn, et al., 1998).

An evaluation of a social interaction coaching program in an integrated day-care setting has been carried out at the University of Iowa. Structured coaching of 3 day-care teachers preceding their daily caregiver routines resulted in substantial increases in adult delivery of behavioral support of social interaction during group activities with 2- and 4-year-old children and marked collateral increases in positive interactions of socially withdrawn children. Long-term maintenance effects were demonstrated by both the teachers and target children, and social validity measures indicated that the teachers rated coaching very positively on several dimensions. This small scale study illustrates the potential advantages of

in-service training of day-care staff, coaching is used as a setting event, and how teaching technology may be used to facilitate social interaction of young children (Hendrickson, et al., 1993).

Early-years assistants can feel obliged to adopt a 'teacherly' mode of interaction rather than other, more appropriate complementary roles (Hughes and Westgate, 1997).

In a program of professional development for staff involved with under threes developed at Warwick Tony Bertram and Chris Pascal (Pascal and Bertram, 1997) are looking at three domains – (1) 'connectedness' (which is about social and emotional indicators related to the child's sense of place in the world); (2) 'exploring the environment' (which tries to capture the indicators of a child's exploratory drive) and (3) 'meaning making in the environment' (which is about how the child constructs the environment) .

- *It is customary in many countries, and certainly beneficial, for a range of adults, from parents to auxiliaries, to support the work of teachers in early-years.*

Young children's wide range of interpersonal, physical and intellectual needs are directly addressed in the model systems created in Reggio Emilia and other Italian nursery schools, in Te Whariki in New Zealand, and in methods adopted in some Scandinavian countries and in certain organisations in Japan. In these examples, parents are encouraged to take a regular and active place in the care institution.

The most significant findings from this Section may be grouped as follows:

Kinds and Qualities of Provision

There are wide variations in quality of care provision for under threes in all countries investigated, and conflicting conclusions about their effects. The learning/teaching process called 'socialisation' shows important cultural differences.

It is customary in many countries, and certainly beneficial, for a range of adults, from parents to auxiliaries, to support the work of teachers in early-years. Special staff training is required for supportive intervention programs, and all caregiver/teachers for 0-3s benefit from training in how to relate to children.

Changing ideas on the 'ideal' family influence research on the family and socialisation. Political and economic factors may lead to out-of-home care that is neither adequate nor appropriate for a young child's needs for intimate, responsive, secure and age-appropriate attention. On the other hand, well-planned and sufficiently resourced care in small groups of peers with experienced staff can have clear advantages for many children, and for their families.

Infants and toddlers do not have to be cared for by their mothers full-time. That said, all young children require and respond to affectionate and consistent care, forming attachments to sensitive caregivers, as to parents. Young children's needs for company in acting, discovering and learning are complementary to their needs for nurturance. Given the difficulty of funding and organising sufficiently responsive and intimate personal attention in an out-of-home place, under 6 months infants of employed mothers, in some communities, may best be cared for by minders at home.

Long hours of care for under threes can be both an indicator of low maternal sensitivity and a factor in difficult child temperament and developmental delay. Day care for very young children is not likely to result in serious emotional disturbance, but it is not without risks and effects, which will carry over to the home. Out-of-home care for children under three is less beneficial than that for children older than 4.

Appropriate quality of out-of-home care for infants and toddlers is costly and requires specialist staff training in early child development, and close collaboration with parents and integration with support for home care can be beneficial in both respects. High quality 'collaborative' care may benefit both parents and children, with long-term effects on social and educational attainments for the children. Benefits may be most evident in disadvantaged communities and for 'insecure' children. However, not all results concur. Ordinary or 'routine' childcare that may benefit many children from dysfunctional families may not work for other children whose parents are depressed or not coping well. Thus for children in difficulties, each individual must be observed in their family context and cared for according to their special needs.

Continued on next page.

Children's Responses to Childcare Depend on How Caregivers Acknowledge their Needs.

Infants need a calm environment with the attention of persons who each have charge of one or a few children and who understand their age-related needs and individual differences. Very young infants need full attention from one experienced caregiver, or a few caregivers, with well-defined and consistent roles.

Playful learning reinforces relationships between infants and caregivers. Peer friendships develop in the second and third years and toddlers benefit from peer support in collaborative play in groups. Adult 'scaffolding' and appreciative or corrective interventions can guide group projects in more fruitful directions. Security in a stimulating, cooperative and stable environment is important for relationships between toddlers and their future social, cognitive and language development and cultural understanding.

Children are capable of sensitive moral responses from infancy and these determine both friendships and antagonisms. Social motives, not just cognitive or linguistic milestones, must be understood by staff who will need to 'attune' to each child's need for companionship and self-esteem with respect for others. Positive, responsive caregiver behaviour is the feature of childcare most consistently associated with friendly and skilled peer interaction in childcare. Discipline for misbehaviour has to be consistent, measured and attentive to the child's responses.

Differences in communication of boys and girls reflect motives of both infants and adults, and girls may develop more quickly at first. Male infants and toddlers are more sensitive to quality of care, to mothers' employment, and to father's behaviour. Different temperaments and self-confidence affect toddlers' behaviour in care groups and relations to teachers.

Relations Between Parents and Childcare Staff

A child's attachment relations with parents and with childcare staff interact, affecting one another as well as the child's progress. Communication and trust in parent-staff relations are very important. Good childcare by competent staff can greatly help families in difficulties, and benefit the children directly. They are a key element in the fostering of good relations in the whole community, childcare needs being a catalyst for adult communication and cooperation.

Parents are often anxious at onset of daycare for the child, and like to be involved. The child is becoming part of new companionship group, negotiating sociability and relationships. Support for parents should include both sufficient childcare and information on children's needs and the effects of deprivation of care. Parents' diaries and discussions and reviews with educators enable shared care of the child, with exchange of views on development.

Care in large groups with high staff turnover can have detrimental effects on the behaviour, self-confidence and development of children, especially those whose parental care is less than ideal. 'Quality' care, with experienced, well-trained staff, close attention to the needs of every child maintaining stable groups of limited size can be beneficial to the child and a vital support for parents. The quality of personal attention and communication, not the provision of expensive educational tools, is most significant for under threes. Poor care or care through the whole day may harm both social and intellectual development.

SECTION D -- INDIVIDUALITY:
YOUNG CHILDREN ARE NOT ALL THE SAME,
AND SOME HAVE SPECIAL NEEDS

This section deals with the special care needs of infants and toddlers with developmental disorders or sensory and behavioural disabilities affecting their social and emotional behaviours, communication and learning. It summarises findings on the kinds of care that support optimal development, and the implications for specialist staff training for work in childcare groups where young children with special needs are included.

It covers literature on emotional disorders, language delay, autism, ADHD, deafness, blindness, Down's Syndrome and the developmental effects of prematurity.

D.1 Helping Children with Disabilities and Behaviour Problems: Emotional Disorders and Anxiety Affecting Toddler's Relationships and Learning Can Be Relieved By Supportive Communication and Free Play

- *Both parents and children can have special needs. Childcare staff can be an important source of help. Violent fantasy correlates with antisocial behaviour, difficulties with friendship, and low moral sensibility in young children*

Behaviour problems, as seen by their parents and day care teachers, in 10 Chicago low-income urban day care centres were studied among 2- and 3-year-old children from low-income families (Gross, Sambrook and Fogg, 1999). Parent-reported behaviour problems were associated with higher child behavioral intensity, greater parent stress, lower self-efficacy, and discipline strategies characterised by irritability, coercion, and inconsistency. Parent and teacher ratings on child behaviour were correlated for boys' behaviour problems only. Parents reported more child behaviour problems than teachers. Approximately 8% of the children were rated as having behaviour problems at home and at day care. Although most of the children were functioning well, many of these parents and toddlers were engaged in highly stressful and coercive relationships. They were in need of support and advice from daycare staff.

Hard-to-manage young children show more incidents of violent fantasy, which is related to poor 'executive control' (ability to make strategic decisions in problem solving), as well as lower language ability, frequent antisocial behaviour, poor communication and coordination in play, more conflict with a friend, including displays of anger and refusal to help, and less empathic moral sensibility (Dunn and Hughes, 2001; Hughes, Cutting and Dunn, 2001).

- *Interventions and difficult behaviour include the Therapeutic Nursery, Skill-Based Training and play with objects, to relieve distress. Mediated Learning experiences can help severely disadvantaged children to a better life with others*

Caregivers' support for children's early emotional behaviour and adaptation to social groups have been assessed in terms of "emotional availability" and "affect attunement". Nurses should focus on interpersonal variables and their contribution to the development of patterns of dysfunctional behaviour in children. The 'therapeutic nursery' with a comprehensive program is an effective way to help seriously troubled preschoolers make gains in behaviour, as well as in social and emotional growth. Mothers of the children also became less depressed (Ware, Novotny and Coyne, 2001)

A skill-based training program in Holland to enhance maternal sensitivity for mothers of infants between 6 and 9 months of age led, in the third year to direct and enduring improvements in parental responsiveness and child cooperation. Such attachment-mediated effects were evident for maternal assistance, child security, and positive peer contact. The pattern of attachment also predicted differences in attractiveness of the focal child as an interactive partner out of the home.(van den Boom, 1995).

Play may be used by the young child as a means of resolving the distressing experience of the first day of school. High- and low-anxiety children were allowed either the opportunity for free play or participation in a story-reading session, each of which was performed in either the presence or absence of peers. The anxious children in the play condition were found to decrease in distress and their play was more solitary and imaginative in nature compared to other conditions. That is, a preschool child can use imaginative play to lessen anxiety in a strange situation (Barnett, 1984).

Experience with UNICEF coping with severely neglected children world-wide has led Hundeide (1991) to use interventions that employ Mediated Learning, a method developed by Reuven Furerstein in Israel for motivating and 'socialising' of street children, who have marked abnormalities in socio-moral and cognitive functioning. Pnina Klein's MISC programme adapts Furerstein's principles for infant and early child development. Hundeide summarises the programme as follows:

"Unlike other programmes, the MISC programme is oriented not only towards promotion of cognitive and social skills, but rather towards affecting a child's need system in a way that will enhance sociability, flexibility of mind and capacity to benefit from any future experiences. These needs encompass, for example, the need to relate to other people, the need to get confirmation from others and to respond to and feel with other people, the need to organize a stable and coherent conception of reality including the cognitive needs to focus clearly on things, the need to compare, to explore and to associate with other experiences in the past, present or future, the need to seek meaning and associate significance to events, people or behaviour in life. Children who have not developed these needs through mediational interaction with a caring adult, will tend to live in an impoverished, flat, meaningless and fragmented, 'from moment to moment' world. Even if the environment is rich and supposedly 'stimulating', the child will not be able to benefit from it since she/he has not developed the needs that generate meaning and an orderly, differentiated conception of reality: the need to ask about things that are not exposed to sensory perception in the immediate present." (Hundeide, 1991, pp. 58-59).

These principles accord with the observations of Forman and Kochanska (2001) on the emotional and cognitive aspects of how infants in the second year respond to mother's control in a teaching-learning situation. Infants' imitation and compliance to control both

relate to how receptive they are to 'parental socialization', and these authors conclude that the child's consistency of cooperation in learning has implications for socio-moral and cognitive development.

D.2 Temperament is Both a Characteristic of the Individual Child, and a Response to the Social Context.

- *A range of concepts and theories are used to define dimensions of temperament. Researchers have sought evidence on effects of interruptions in maternal care and differences in attachment on children's emotions and temperament*

Individual differences or personality traits of children are often described or measured as if they can be independent of the social context. Developmentalists differ in their view of how and how early children's temperaments emerge, and much research has been devoted to measure stability and continuity of temperamental characteristics, their possible biological or genetic basis, response to situations and culture, and effects on other persons' behaviour.

At present children's temperaments are usually charted in the dimensions of 'emotionality', 'activity' and 'sociability' (Buss and Plomin, 1984). Dunn has sought to relate temperament to the child's relationships in the family (Dunn and Kendrick, 1982). Bronfenbrenner (1979) is critical of the prevalent view that any aspect of the child's behaviour can be understood without taking into account the social and historical 'ecology' of the environment in which the child has lived or is living.

Although it is sometimes expected that temperament can be a cause of cognitive and social development with direct effect -- for example, a short attention span reduces investigation and therefore learning -- most of the influences on a child's emotions, activity and learning will be indirect; in interactions with parental temperament and behaviour, via susceptibility to psychosocial adversity, and affected by the range of interpersonal experience the child has in the family and community.

Many studies have attempted to measure the effect of attachment security on temperament. An 'irritable' infant temperament has been found associated with insecure attachment to the mother at one year (Waters et al., 1980) and with less responsive care from mothers (Crockenburg, 1981). Toddlers' behaviour is affected by maternal anxiety and a mother's responsiveness with her infant, which in turn reflects the amount of social support she receives (Murray and Cooper, 1997).

Mothers of securely attached infants were consistently more co-operative and sensitive with their infants in a feeding and play situation than mothers of 'anxiously attached' infants. 'Anxious/resistant' infants tended to lag behind their counterparts developmentally and were less likely to solicit responsive care taking. 'Anxious/avoidant' infants, although robust, tended to have mothers who had negative feelings about motherhood, were tense and irritable, and treated their infants in a perfunctory manner (Egeland and Farber, 1984; Nagy and Kovacs, 2000).

Infant temperament appears to affect the manner in which security or insecurity is expressed, rather than whether or not the infant develops a secure or insecure attachment. But attachment may be an inadequate concept to grasp the fundamental motives of the child to elicit and sustain a relationship of playful sharing in experience, and the child's need for a strong and consistent pattern of transactions with known carers who respond with a flexible and generally positive range of relational emotions (Belsky and Rovine, 1987).

- *Temperamental characteristics can persist from one generation to the next.*

Genetic factors determine inheritance of part of what is measured as temperament. In one study of young children across two generations, there was a significant stability between generations in the 'inhibited' behaviour pattern but not in the 'difficult' pattern. This

relationship was stronger when parents had been assessed at an age closer to that of their toddler offspring, and was consistent for mother-offspring and father-offspring comparisons, and between daughters and sons. In other words, timidity had a strong inheritance, but difficult behaviour did not (Cohen, Kasen, Brook and Hartmark, 1998).

D.3 Language Related Problems Can Affect Emotional Health and Learning.

- *Temperament in late talkers may reflect difficulties in communication. Intervention requires making the child's task of understanding language easier*

A social or emotional behaviour problem may not necessarily stem from a problem in social or emotional development as such, but may indicate learning and behavioural difficulties that are associated with a language disorder. Six year olds who were identified at age two as being slow in expressive language development were rated significantly more shy and aloof, and less outgoing than peers with normal language history. Approach/Withdrawal scores were significantly correlated with average sentence length in spontaneous speech (Paul and Kellogg, 1997).

A study in India has criticised the diagnostic tables normally applied in the European and Anglo-American speech areas, the ICD-10 and DSM-IV, and proposes an alternative classification of language and speech developmental disorders that allows a differentiation between expressive and receptive language capabilities with regard to the meanings of words (semantics) and the grammatical forms of words and sentences (morphology and syntax). A functional interpretation of early language, examining its use in real communication and difficulties of understanding and response, helps clarify the nature of a child's difficulty (Spiel, Brunner, Allmayer and Pletz, 2001).

Mothers of children with speech-related problems tend to use more active and directive forms of communication. Mothers of toddlers with expressive vocabulary delays who were trained to make language input slower, less complex and more focused led the children to use more target words in naturalistic probes, more words in free-play interaction and to have larger vocabularies overall, more multi-word combinations and more early word forms (morphemes) (Girolametto, Pearce and Weitzman, 1996).

D.4 Blind Infants and Toddlers May Respond Well to Supportive Communication and Develop Normal Self-Awareness and Language.

- *Parents and caregivers should respond to a blind child's impulses to communicate and share in games.*

Given that a blind baby has no abnormality of brain function except functionless eyes, he or she is well equipped to find a conversational companion if the inability to see is not feared and made into a barrier (Preisler and Palmer, 1986). If the baby's seeking is seen as blind and in need of special instruction, parents and caregivers can be misled into concentrating only on the problem of finding the infant's attention, assuming that 'out-of-sight' = 'out-of-touch'. Selma Fraiberg (1977, 1979) observed that lowered expectations could betray the blind baby's eagerness to join in conversation and affect development of self-awareness. For example, a blind child does not have to learn how to gesture by seeing the gestures of others, and expressive and responsive spontaneous hand gestures can make the infant's feelings apparent.

Rhythmic, prosodic games and songs may entrain a blind baby's body movements and gestures. Urwin (1978, 1983), showed that as the baby became stronger and more willing

to reach out, using extended fingers to search for objects to grasp and manipulate, a partner can play with the infant's seeking behaviour by moving an object that the baby had touched so it goes just out of reach and has to be groped after. In the context of a game, with laughter and vocal gloss amplifying the intentions and awareness, the infant's frustration can become source of pleasure to him or herself, and a satisfaction to the parent. Blind infants can enjoy a vocal teasing game or repetitive baby song.

- *Learning language is difficult for a blind toddler because other person's actions may be hard to follow. Their talk and self-awareness depend on overcoming isolation.*

A blind toddler has trouble keeping track of others' interests, relying on hearing and touch. Totally blind children do, eventually, become both fluent speakers of correct language and imaginative and creative story makers, as did the blind girl in a study by Fraiberg and Adelson (1977). However, most will be delayed, as she was, in the period of early language learning, and some, apparently normal in every respect except their lack of sight, may for a time be like autistic children in their confusions about pronouns, about indicating directions in time and space, and in making a narrative. They have a problem with picking up on the 'point' of what other persons are saying, and this leads to a delay in understanding themselves as agents and persons whom others can regard in various ways. Hobson (1993, 2002) discusses both the philosophical and psychological aspects of how a child comes to be a confident actor and thinker in the world of symbolic meaning.

D.5 Autism Affects Acting, Feeling, Knowing, Thinking, and Relating to People.

- *Autism always affects intimate reciprocal engagement with the motives and emotions of people and normal understanding of meanings.*

Autism commonly affects children seriously from the second or third year, but it varies in severity and in many of its features (Hobson, 2002; Kanner, 1943; Trevarthen et al., 1998). It is a pervasive, life-long disorder. Diagnosis is often difficult, but a 'triad of impairment' is identified, in 'social recognition, communication, and imagination'. Biological and genetic factors are found, and autism is sometimes defined as a cognitive disorder resulting in 'theory of mind' problems that impair a child's awareness of other person's 'activities and states of mind'. It is a condition associated with swings of emotion and anxiety, abnormal imagination and a peculiar narrative sense that confuses the awareness of the child and interferes seriously with shared understanding of actions and experiences. Autism is extremely distressing for parents, and successful treatments require care for the needs of the whole family (Alvarez and Reid, 1999; Guralnik, 1997; Shields, 2001).

Autism does not necessarily impair either attachment to carers or the emergence of imaginative play, but it does always affect intimate reciprocal engagement with the motives and emotions of people and normal understanding of meanings (Bråten, 1998b; Hobson, 1993, 2002; Howlin, 1998). Interventions that target communication (Manolson, 1992), or those that attract the child to closer involvement with the movements of others and enjoyable play, such as improvised music therapy (Robarts, 1998) and developmentally informed psychodynamic treatment (Alvarez and Reid, 1999), do benefit socio-emotional development, including development of language, which may be severely reduced. Approximately 50% of autistic children do not speak at five years (Baron-Cohen et al., 1985; Jordan, 1993; Trevarthen, et al., 1998).

- *Early intervention for children with autism requires attention to individual needs and encouragement of enjoyable communication.*

Children developing autism benefit from early attention to their difficulties, in the toddler period (Shields, 2001). Joint interpersonal expressive play is used as a powerful intervention to help toddlers with autism establish a shared focus and to encourage interpersonal expectations and joint effectiveness in interaction. It raises the level of

emotional sharing as well as collaborative teaching and learning. Games develop by children negotiating with other persons' expectations and centre on shared interests. Interpersonal expressive play, to establish a shared point of interest that will coordinate the child's senses together and encourage interpersonal expectations and joint effectiveness in interaction, is being used as a powerful intervention with young children with autism (Janert, 2000).

Emotional engagement and joint attention appear to be crucial for language development in autism (Rollins, 1999), and may be applied for clinical intervention to enhance communication skills in autistic children more effectively than training in thinking or beliefs (Rollins et al., 1998; Astington and Jenkins, 1999)

In inclusive school settings, young children with autism and their typically developing peers have been observed to play with a comparable number of toys, but the children with autism engaged in these activities for shorter times. Children with autism and the other children communicated at similar levels with adults, but the children with autism, unlike the typically developing children, rarely or never addressed or interacted with their peers.

Communication of autistic children can be facilitated by carers using persistent imitation, and sometimes imitation games with younger siblings or actively friendly and playful peers can be very effective.

Improvisation music therapy is an effective way of gaining and regulating communication with even the most recalcitrant autistic youngsters (Robarts, 1998). It employs mirroring and enhancement or modulation of expression with the benefit of a trained musician's sensitivity for pulse and expression in gestures made by the patient. Imitative responses of all kinds are found to be attractive to autistic children and can act as a bridge to collaborative play or communication, and improving the child's access to language (Tiegerman and Primavera, 1981, 1984; Dawson and Galpert, 1990; Nadel, 1992, Nadel and Pezé, 1993). The intensive training of parents by the Option method in responsive care and education of autistic children, which has proved of benefit to many families, employs systematic imitation to achieve joint attention and motivation to learn collaboratively (Kaufman, 1981, 1994). Shields (2001) has developed a short-term early intervention for The National Autistic Society that assists parents to cope with a young child developing autism.

D.6 ADHD, Autism and Mental Retardation May Be Confused.

- *Attention-Deficit Hyperactivity Disorder is complex, and interacts with other conditions of early childhood, such as autism and mental retardation.*

Attention-Deficit Hyperactivity Disorder (ADHD) or Hyperkinetic Disorder is a condition in which a young child is abnormally active and unable to sustain attention on a task. It is difficult to identify as a pathology in toddlers, or to distinguish from kinds of autism (Aitken, 2003; Roeyers, Keymeulen and Buysse, 1998). Poor control of attention and activity may be features of children who are anxious and distressed, as well as those with neurodevelopmental disorders. Many children subsequently diagnosed with ADHD had sustained minor head injuries in childhood, but the direction of cause is not certain -- their activity and impulsivity may have led to their being involved in accidents (Herskovits, et al., 1999).

Little is known about the attention deficits in children with ADHD who also have mental retardation. There is evidence of selective attention deficits in these children. Girls with mental retardation may be at a higher risk for ADHD than are girls in the general population (Pearson, Yaffee, Loveland and Lewis, 1996).

Changes in children's motivation and emotion mediated by communication and responding to the expressions of caregivers and partners in action and awareness can evoke and sustain improvements in motor coordination, cognitive alertness and discrimination, learning and thinking in children diagnosed as ADHD (Tallal, et al., 1998).

D.7 Deafness May Be Circumvented by Language in Another Mode.

- *Communication and interaction with a deaf child by signing can follow a course of development close to that of speech with a hearing child.*

Language opens a path to socialisation and development of a child's self-confident social identity and capacity for thought and imagination (Hobson, 2002). It is important that the deaf child is not left with little chance to share information of spoken communication, with resulting lowered self-esteem (Gregory, 1995). The development of a deaf infant or toddler depends on the intimacy of communication with parents. Acquisition of sign language can proceed at the same rate as acquisition of spoken language, and linguistic milestones are reached at equivalent ages (Volterra, 1986).

Deaf babies 'sign babble' after six months, practising gestures to convey meanings in the same way and at the same age as hearing children engage in repetitive vocal play preparatory to articulating speech (Petitto and Marentette, 1991). For a deaf toddler, hand signing can replace speech as a language learned with others who understand the same conventions. If parents sign and follow signs, the child will start to use them too, accumulating a vocabulary of signs in the second year like a hearing child learns spoken words. Hearing babies of deaf parents babble silently with their hands

It has been demonstrated that the rhythmic, silent finger 'babbling' of deaf one year olds corresponds to the sound babbling of hearing children, and that it is motivated to communicate, the 'signs' being 'shown' to people (Petitto and Marentette, 1991; Petitto et al., 2001). Parents' signing helps the early development of a deaf infant's language, and deaf mothers respond with more sensitivity to deaf children. Deaf children of hearing mothers produce fewer words than those with deaf mothers (Bornstein, et al., 1999). In one study, deaf one-year-olds had less representational play with their mothers than hearing infants, and at 18 months, hearing toddlers with their mothers and deaf toddlers with deaf parents both displayed more preplanned play than deaf children with hearing parents. Mother's responsiveness helped 18-month-olds' preplanned play (Spencer and Meadow-Orlans, 1996).

A preverbal measure of 'autonomy' obtained before implantation predicts later speech perception in those who have successful treatment. It appears that intervention that promotes autonomy in adult-child interaction leads to improved language and such intervention should be commenced as soon as deafness is discovered (Tait, Lutman and Nikolopoulos, 2001).

With support for the development of hearing and under favourable circumstances, even children with profound hearing-impairments may attain the same level of natural auditory-verbal skills as children who can hear well and in the same natural way. The early education system should introduce screening for new-born infants so intervention can be made from the start (Diller, Graser and Schmalbrock, 2001). Development of a secure attachment and maintaining a good mother-child relationship during the toddler years do not depend on the child having normal hearing (Lederberg and Mobley, 1990).

- *Social support and aid in language development helps hearing mothers with deaf infants.*

Studies have shown that it can be difficult for hearing parents to initiate interactive games and establish turn-taking and joint reference with deaf toddlers (Gregory and Mogford, 1981), but deaf mothers of deaf children were able to develop ways of directing their

child's attention, and to achieve turn-taking and joint reference (Kyle and Ackerman, 1989; Gregory and Barlow, 1989). Deaf mothers intervened less than hearing mothers of deaf children or than hearing mothers of hearing children, but actions of the deaf child and deaf mother were more likely to be related. Interactions between hearing mothers and deaf infants, their visual and tactile responsiveness when their infants were 9 months of age, and their infants' ability to cope with interactive stress at 9 months of age were improved by social support provided to mothers in the early months of the infants' lives (MacTurk, et al., 1993).

D.8 Down's Syndrome Leads to a Different Path for Development.

- *Development of Down's syndrome children is 'different' as opposed to slower and 'delayed'.*

Children with Down's syndrome take longer to process visual information and their language development is slower and less advanced than might be expected in relation to their general level of development (Fowler, 1990). They shift gaze less from one thing to another and there is less turn-taking in protoconversation between Down's babies and their caretakers (Faulkner and Lewis, 1995). Caregivers talk for a greater proportion of the interaction and give more verbal directives than is normally observed. Berger (1990) found that when mothers of 3-7 month Down's babies were asked to imitate their babies, some of the babies became more responsive and more playful.

- *Children with Down's syndrome elicit compensating behaviour in adults.*

Mothers of children with Down's syndrome tend to be more directive and supportive than mothers of either younger or older typically developing children. More maternal supportive object behaviour was associated with more object play and vocalisation by children with Down's syndrome (Roach, Barratt, Miller and Leavitt, 1998). In a Japanese study, mothers of children with Down's syndrome asked more questions during free play or at meal time, and they produced more requests for information and fewer clarification requests during free play (Huang and Oi, 2001). Similar changes in communication can be expected in caregivers with Down's children. Skilful use of play can engage and enhance the child's responses.

D.9 Prematurity is Often Linked to Mental Retardation That Responds to Sensitive Care and Stimulation.

- *Development of preterm infants is variable, but benefits from early intimate communication with carers.*

Early intervention can promote intellectual development of premature infants and may be beneficial to the prevention of mental retardation, to which they are prone because many have brain damage that affects their motor coordination, attention and learning. Early and intensive intervention can produce better results. Bringing parent's initiative into full play through deepening their understanding of the importance of early intervention is the key to success (Bao, Sun and Wei, 1999).

Research has shown that the quality of the interactions between infants and caregivers and their dyadic joint attention to features of the environment is a potent factor in predicting how well preterm infants develop as toddlers. Children who experienced high levels of communication use word combinations productively and talk about relations between objects and events. Those who had low levels of interaction with caregivers produce few word combinations and are limited in the relations they talked about, and they do not share common topics as frequently. The dyads with low engagement use a broad range of styles of interaction. Interaction facilitates the acquisition of language of prematurely born children (Rocissano and Yatchmink, 1983).

The review clarifies how emotional disorders of toddler's affect relationships and learning. The child's anxiety, fear or anger can be relieved by supportive communication and free play and experienced childcare staff can be a vital source of help to both child and parents. All difficulties of relating and communication can benefit from sympathetic and well-informed childcare.

Caregiver's responses have been assessed in terms of "emotional availability" and "affect attunement". Interventions for difficult behaviour include the Therapeutic Nursery, Skill-Based Training and Play with Objects, to relieve distress. Interactive therapy, especially music therapy, can be effective, and offers models for staff intervention in daycare.

A child's temperament is both a characteristic of the individual child, and a response to the social context. A range of concepts and theories are used to define dimensions of temperament. Researchers have sought evidence on effects of interruptions in maternal care and differences in attachment on children's emotions and temperament. Temperamental characteristics and learning difficulties can persist from one generation to the next.

Language-related problems can affect both emotional health and learning, and temperamental behaviour in late talkers may follow from difficulties in communication and isolation. Intervention for language difficulties and barriers to communication such as autism, deafness and blindness require making the child's task of understanding other persons' actions and messages easier.

Blind children can develop normal speech and comprehension of language if they are supported in their understanding of others' actions and perception of themselves as agents in collaborative activity. They may, for a time, develop behaviours like autism.

Communication and interaction with a deaf child by skilled and responsive signing can follow a course of development close to that of speech with a hearing child. Social support and aid in language development helps hearing mothers comprehend the needs of deaf infants.

Autism, usually diagnosed in year two or three, affects acting, feeling, knowing, thinking, and relating. It impairs intimate reciprocal engagement with the motives and emotions of people and normal understanding of meanings. Early intervention for children with autism is particularly valuable and requires attention to individual needs and encouragement of enjoyable communication. Parent-child relations need to be addressed with professional therapeutic and educational guidance. Autistic toddlers benefit from sensitive encouragement to play, including play with other young children, and from music therapy with a skilled practitioner. Attention-Deficit Hyperactivity Disorder is complex, and it interacts with other conditions of early childhood, such as autism and mental retardation, with which it may be confused. The diagnostic symptoms can overlap with signs of emotional distress caused by neglect or abusive parenting.

Down's syndrome, which affects motor coordination and attention, leads to a different path for development, the children are not simply slower or 'delayed'. Their behaviour elicits compensating behaviour in adults, who may need guidance to avoid being too controlling or intrusive.

Prematurity is often identified as a cause of mental retardation in a young child.
Development is variable, but benefits from early intimate communication with carers.

SECTION E – PROBLEMS

DIFFICULT RELATIONSHIPS AND HARD ENVIRONMENTS

We review problems arising out of inadequate parental care and harmful human environments, including effects on a child's development of a mother's clinical depression, inattentive and inconsistent or abusive parenting, and the responsibilities such difficulties place on caregivers who receive the child out of the home. Effects of early maternal employment are distinguished from those due to poor home environment.

E.1 Maternal Depression and Training to Overcome Its Effects on Infants and Toddlers. Applications to Support the Emotions of Care Staff

- *Infants are immediately aware if a mother is inattentive and withdrawn.*

Experimental studies of the effects of disrupting a mother's immediate responses to her young child clarify the potential impact of maternal depression on child development. Similar effects are found with toddlers. When mothers acted as if withdrawn and depressed by becoming less positive, expressive, involved, talkative, and responsive, 18 to 36 month olds physically withdrew from them, made more negative physical bids for attention, and became more unfocused and generally negative. Children accepted their unresponsive mothers' infrequent interaction bids, but did not attempt to comfort them when they appeared depressed. In mothers' normal mood episodes, children were more positive, were never unfocused, and played closer to their mothers. That is, toddlers reacted negatively to transitory maternal withdrawal and depressed affect, displaying their distress in a developmentally appropriate manner (Seiner and Gelfand, 1995).

Depressed mothers are less sensitively focused on their infants' experience, are less likely to attribute intentionality to the infant than well mothers, make more responses that are rejecting or emotionally 'out of tune' with the infants' behaviour, and they are also more hostile (Murray, 1992). Happy mothers display more interactive coordination with their toddlers than depressed-mothers who attend less frequently to an event in common with their children (Goldsmith and Rogoff, 1997). Depressed mothers are less likely to repair interrupted interactions, and their toddlers are less likely to maintain interactions. Toddlers act sympathetically to nondepressed mothers' negative expressions, but not to those of depressed mothers (Jameson, Gelfand, Kulcsar and Teti, 1997).

Disturbances in expression of the mother's voice may be the main 'discouraging' factor affecting infant cognitive development. The speech characteristics of depressed mothers have been found to predict poor cognitive functioning in the infant. They are a potential marker for interactive qualities that do exert a direct impact on the infant (Murray, 1992; Murray et al 1993; Murray and Cooper 1997).

- *Maternal depression can affect development of thinking and learning in some infants.*

Infants show different degrees of fragility or resilience in the face of a mother's worry or sadness, but all notice when she is not warmly responsive. The speech of depressed mothers lacks expressiveness, is unpleasant to infants, and does not encourage associative learning (Kaplan, Bachorowski and Zarlengo-Strouse, 1999).

Children of mothers who experience depression in early postnatal months, and whose expression speech, and awareness of the infant's needs are affected, show immediate disturbances in infant affect and attention (Field, 1997; Tronick and Weinberg, 1997), raised incidence of insecure attachment to the mother at one year (Murray, 1992; Martins and Gaffan, 2000), raised levels of behavioural difficulties both at school and in the home later on (Murray et al, 1999), and, in some cases, poorer cognitive outcome that may persist for years (Hay et al., 2001; Murray, 1992; Murray et al., 1993). Children 5 years old who had been exposed to maternal depression, either in the previous 12 months or at any other time during their lifetime, were more likely than nonexposed children to express ideas of hopelessness, pessimism, and low self-worth. In part the children's depressed ideas were due to current hostility of their mothers to them (Murray, et al., 2001).

All the above studies confirm that mutual self-other-consciousness with emotional sympathy plays the lead role in developing a young child's cooperative intelligence for cultural learning and language, and their ability to think with others as other children do (Hobson, 2002). It also underlines the importance of family and community support for a young mother who lacks enjoyment and confidence, who feels that being a mother is difficult. Mothers' relationships with other people -- her feeling about 'belonging' in the community -- influence the friendship she offers to her infant (Tarkka, Paunonen and Laippala, 2000; Gratier, 1999, 2002).

Maternal depression can be associated with insecure attachment and early indicators of behaviour difficulties: it can also feed the development of a vicious cycle of disturbed relationships. However, research findings on long-term effects are inconclusive. Maternal depression is one of many risk factors that can contribute to disturbed development, but a simple cause and effect model would be misleading. Parents and children develop an Internal Working Model - a set of beliefs or expectations about each other's actions and intentions and about their relationship that can itself contribute to the development of disturbed behaviour (Bowlby, 1969; Brazelton and Cramer, 1991).

Lifetime maternal depression predicted less optimal mother-infant interactions and insecure infant attachment. However, this "depression effect" was attributable to emotional illness in these mothers in addition to the depression. Maternal depression in the presence of other psychopathology confers risk to the mother-child dyad, and the risks appear to differ for boys and girls. Early identification and prevention efforts are warranted (Carter, Garrity-Rokous, Chazan-Cohen, Little and Briggs-Gowan, 2001).

- *Interventions to help depressed mothers are immediately beneficial to children.*

Early interventions should focus on training mothers to attend to, maintain, and repair mother-child interactions to more closely approximate normal levels of interactive coordination. Improvements in the quality of interactions with their infants occurred when, within interaction coaching, depressed mothers were asked to 'imitate' the infant's vocalisations. The mothers became attentive to levels of infant arousal, and the infants also became more attentive and responsive. Such an intervention appears to be particularly

suites to 'intrusive' depressed mothers, rather than those that behave in a 'withdrawn' manner to their infants (Field, 1997; Cooper and Murray, 1997).

E.2 Styles of Parenting, Attachment and Children's Misbehaviour.

- *Inconsistency of parent's feedback relates to toddlers' misbehaviour and negative affect, but the effects are not simple.*

It can be misleading to classify parental behaviour along single discrete dimensions of 'warmth-coldness', and 'permissiveness-restrictiveness' (Sears, Maccoby and Levin, 1957). Parental styles combine aspects of emotional relationships and control, and a close and strong relationship shares interests and goals, though this latter aspect of 'companionship' is often overlooked in standard psychological studies.

Baumrind (1967, 1971, 1991) classified parenting styles and the accompanying children's behaviour --'permissive' (children's behaviour 'impulsive aggressive'), 'authoritarian' (children 'conflicted-irritable'), 'authoritative styles' ('energetic friendly' children). The authoritative style, combining high warmth, responsiveness and communication with firm control, is associated with positive outcome in adolescence, and is especially important for the development of competence in boys. This work has been criticised -- according to the 'ecological systems' theory of Bronfenbrenner (1979), Baumrind's is not a reciprocal model. It overlooks factors such as social context, cultural values, and the stability of parental style.

The general hypothesis that mothers' inconsistent discipline can cause children to misbehave has been examined by an experiment in which groups of mothers behaved in different ways. Reprimanding half of the child's demands and providing positive attention to the rest of the demands resulted in high rates of both demands for mothers' attention and children's expressions of anger and distress. Reprimanding half the children's demands and ignoring the other demands did not have bad effects, nor did reprimanding and attending to the same demand half of the time and ignoring the other demands. Thus, clear, positive feedback for inappropriate demands is a type of inconsistent discipline or guidance that can cause normal toddlers to become "terrible twos" (Acker and O'Leary, 1996).

- *Child abuse affects relationships outside the home.*

Maltreated children, observed in free play, were found to have significantly poorer skill in initiating interactions with peers and maintaining self-control, as well as a greater number of problem behaviors. The experience of maltreatment has a negative impact on children's developing interpersonal skills above and beyond the influence of factors associated with low socioeconomic status and other environmental stressors (Darwish, Esquivel, Houtz and Alfonso, 2001).

- *Bowlby proposed that children develop Internal Working Models (IWMs) of relationships and that these determine emotional health.*

Internal Working Models (IWMs) are hypothetical cognitive structures based on the child's experience of interacting with significant others and rooted in the experience of accommodating to the primary caregivers (Bowlby, 1969). If the relationship is 'secure', the infant will have an internal working model of caregivers and others as being responsive to needs, but if it is 'insecure', caregivers and others are seen as unresponsive to the infant's needs, which affects later emotional and social development. The internal working models will extend and multiply to accommodate larger numbers of relationships and longer periods of separation, but continue to reflect the experiences of primary attachment relationships.

In one study, changes from secure to anxious attachments were characterised by initially

adequate care taking skills followed by prolonged interaction with an aggressive and suspicious mother. Changes toward secure attachments tend to reflect growth of understanding and increasing competence and self-confidence among young mothers (Egeland and Farber, 1984)

Infant 'proneness-to-distress' reflects the mother's behaviour and personality, and security of attachment can be accounted for by an interaction between the mother's personality and her infant's proneness-to-distress (Mangelsdorf, et al., 1990). Risk factors associated with problem behaviours include the child's social background, the parents' marital relationships, the mother's mental state, and parental attitudes to the child (Richman, Stevenson and Graham, 1982).

- *Attachment beyond infancy: Intergenerational effects mean that difficulties in families persist.*

The quality of an attachment relationship can be predicted by a recently developed measure of parents' mental representations of their own early childhood relationships, the Adult Attachment Interview (AAI) (Main and Goldwyn, 1984). Main's research using AAI indicates links between the quality of a mother's relationships with her parents and the quality of her relationships with her own child. Four major patterns of adult attachment are identified by this research --'secure-autonomous', 'dismissing-detached', 'preoccupied-entangled', 'unresolved-disorganised'.

While most parents of nonaggressive children are classified as 'secure' on the AAI, most abnormally aggressive children have parents classified as 'insecure'. The AAI may be a useful intergenerational predictor of antisocial and resilient outcomes among children for whom a single caregiver is the only resource for long-standing attachment relationships. Efforts to enhance the constellation of children's early attachment relationships may serve to prevent antisocial outcome (Constantino, 1996). In other words, if children have many friends and companions in early years, they are likely to be both better behaved and happier in later life.

E.3 Interventions for Problems of Early Childhood: For Children, Parents and Caregivers.

- *All problems with infants and toddlers can be eased with intimate and sympathetic care giving that encourages shared action and discovery.*

Children participating in 'Enhanced Milieu Teaching', systematically increased their use of targeted language skills during the intervention sessions, and these changes were maintained when the treatment was discontinued. Some generalization to untrained partners was observed for all children. Greater numbers of child utterances and greater diversity in vocabulary were associated with increased talking and mands for verbalisation presented by partners (Kaiser and Hester, 1994).

In talking with parents about emotional development, perhaps the most important lessons are to be culturally sensitive, be positive, be relevant, and speak clearly (Melmed, 1998).

- *The links between the child, the family and the environment, and transactions between them, are the preferred target for intervention.*

Sameroff (1987) proposed a transactional model of development and suggested that intervention when there is 'problem' behaviour should be aimed at the transactions taking place between the child and the 'environment'. He proposed 3 types of intervention: 'remediation' (at the biological level -- e.g. nutritional supplements, drugs), 'redefinition' (parents are encouraged to redefine their idea of the child; focusing less on disability or deficits, and more on the possibilities for normal development within disability, 'where the child is') and 're-education' (teaching parents about child development and how to 'raise' children, or share life responsibilities and opportunities with them)

- *For children with special needs, emotional support and early education are linked.*

In general, children's developmental problems, including those affecting behaviour and learning, are classified for treatment and management of services as if they were medical syndromes, and standardised diagnostic schedules are used to get reliable assessments. However, classification of problem behaviours and measurements of their incidence are not that straightforward. A given problem may have different significance depending on the age of the child; e.g. bed-wetting may be only a mild problem with a 3-year-old, but a worrying sign with 10-year-old. Rating scales are widely used for assessment but judgements and standards vary amongst raters - different studies report incidence of significant emotional and behavioural problems in children ranging from around 6% - 16% (Achenbach, McConaughy and Howell, 1987; Woodhouse, 1995).

E.4 Optimal Provision, and Risks of Care

- *Early resumption of employment may not impede the development of secure infant-mother attachment.*

A study of the relation between resumption of full-time employment by mothers of infants under 6 months of age, and subsequent infant-mother and infant-father attachments, found no relation between maternal work status and the quality of infants' attachments to their mothers (Chase-Lansdale and Owen, 1987).

- *Care environments are less significant for poor development of young children than home environments.*

Baseline data from the Canadian National Longitudinal Survey of Children and Youth were used to evaluate the associations between child care arrangement and poor developmental attainment (PDA) for 521,800 children aged 2 to 3 years. Children were grouped by the predominant type of arrangement: care by someone in the child's own home, in another home (family child care), at a child care centre, or none (child care exclusive to parents). When socioeconomic status, biological factors and maternal immigration were controlled, family dysfunction, hostile parenting and low neighbourhood safety were correlated with poor development, and positive parent-child interaction decreased the odds that the child's development would be classified as 'poor'. Centre child care arrangements were beneficial to development of most children, but some children with depressed mothers did not develop well when looked after in child care centres. Findings suggest that the effects of child care arrangement on child development depend on factors that influence a child's home environment (To, Cadarette and Liu, 2000).

E.5 Integration of Children with Special Needs: Play with Peers and Mothers' Views.

- *Mixed aged classes favour inclusion of children with special needs.*

Children in mixed-age classes took more turns in conversations with partners with disabilities than did children in same-age classrooms. They also received more turns from their partners with disabilities, which were more often responses than initiations in the mixed-age as compared to same-age classes. In contrast, during communicative interactions with partners with no disabilities, children in both types of classes did not significantly differ

in number or types of turns. Children of a similar developmental level also had similar communicative interaction styles (Roberts, Burchinal and Bailey, 1994).

- *Aggressive children are unpopular.*

When preschool children were asked about whom they prefer as playmates, children with special needs received few positive or negative playmate preference nominations. Irrespective of disability status, children were disliked if they were aggressive (Nabors, 1997).

- *Mothers of children in integrated settings reported that their child played better and was more social.*

Mothers of children with special needs enrolled in both integrated and specialised programs perceived their respective settings as valuable for the development of their child's peer relations and friendships. Mothers were concerned about peer rejection, and they noted the importance of having other children with special needs in the program as a means of promoting tolerance and acceptance (Guralnick, Connor and Hammond, 1995).

Our review confirms that the home environment is the main factor in the emotional and cognitive development of an infant or toddler, and that attachment to parents and a sense of security in the home will affect adaptation of the child to out-of-home care. Early resumption of employment by the mother does not necessarily prevent the development of secure infant-mother attachment.

A mother's severe clinical depression causes an infant to behave in avoidant and anxious manner and can impair thinking and learning, but the infant may retain sociability towards other adults, and may even compensate by an eager friendliness. Thus caregivers have the change to support both child and mother through their difficulties. Training of staff in how to overcome an infant's or toddler's withdrawal and to aid the mother's resumption of a sensitive and rewarding attachment relation with her child will benefit both the family and the childcare establishment. Interventions to help depressed mothers are immediately beneficial to children

Inconsistency of parent's feedback relates to toddlers' misbehaviour and negative affect, but the effects are not simple. Child abuse will also affect relationships outside the home. Intergenerational effects mean that attachment difficulties in families persist from one generation to the next. Child care can be a factor on breaking the cycle of poor child care.

All problems with infants and toddlers can be eased with intimate and sympathetic care giving that encourages shared action and discovery. The links between the child, the family and the environment, and transactions between them, are the preferred target for intervention.

For children with special needs, as for all children, emotional support and early education are linked, and childcare staff can help with both.

SECTION F – SUMMARY, CONCLUSIONS AND RECOMMENDATIONS FOR OUT-OF-HOME PROVISION FOR UNDER THREES.

Above all other considerations, we would stress that good care of infants and toddlers, by any person who would assume more than casual and brief responsibility for their well-being, requires recognition and respect for every young child's motives for companionship. The many research studies we have reviewed, whether of individual children tested in laboratory conditions, of children observed in different homes or cultures and of surveys of outcomes for populations of children who are placed in institutions contrived for their care away from the family, agree about certain key features of these motives.

Young children are intensely perceptive of the intentions, awareness and emotions of other persons. They recognise individual people and try to hold to relationships. They enjoy the pleasures of inventive play, especially if the play involves lively negotiation of purposes and concerns. Most of all they respond with pleasure to admiration and affectionate regard for the special, important experiences they generate. They soon build personal narratives of selfhood.

This is the kind of intelligence that makes human communities, arts, techniques, language rituals and systems of belief possible, and that passes them on from one generation to the next. Being strong in their emotions, the same motives of the young can be powerfully destructive, of the child him or her self, of relationships and of the chances of moral and intellectual education or socialisation. If childcare is ill-informed and irresponsible, it can have damaging effects in the lives of families and the futures of children. If, to quote Jan Amos Comenius, it is ready to, "act reasonably as with a reasonable creature", all will benefit.

Systematic, age-related changes in infants' and toddlers' behaviours and responses prove the strength of innate motives for learning to be moral and responsible in companionship.

YEAR ONE:

- **Infants under three months require affectionate attention by one person or a very few persons to whom the infant can adapt emotionally and form a secure relationship in a quiet and familiar place.** Day care must be sensitive to infants' changing needs for uninterrupted sleep, for holding, for comfort and for feeding -- and, when alert, for intimate play. Each carer should have responsibility for no more than 3 or 4 infants. There should be provision for rest, immediate response to distress or expressions of need, and consistency of affectionate contact in which familiar intimacy may be maintained. The infant's need for a gentle and harmonious atmosphere applies to out-of-home care as in the family. Failure to supply this to the child of a family in difficulties may exacerbate family anxiety and the infant's distress.
- **Infants and adults form relationships in interactive play characterised by mutual 'attunement' to the rhythms and expressive modulations of the voice, face, touch and body movement.** The infant has high innate sensitivity to the rhythms and expressions of human movement and to contingent 'parenting' behaviour that is responsive to the infant's state. These indicate how staff who will care for very young infants should be trained, and how their practice should be planned.
- **Insensitive, inconsistent and unresponsive care by constantly changing partners in a noisy environment causes stress and withdrawal.** It may harm the infant, disturbing

self-regulation and reducing the innate human capacity for sharing emotions in communication. Where a caregiver cannot respond to infants' needs for affection and play, there is a strong indication for outside help. A depressed or worried nurse will be further troubled by an infants' withdrawal. In such circumstances, improvement can be facilitated best if they are supported together – as a couple.

- **Enjoyment of moving and discovering objects offers rich learning experiences for an infant -- with an adult beyond 3 months, and beyond 6 months also with peers.** Enjoyment of vocal play and song builds confidence and animates discovery and creative motivation. Before six months infants do not readily share use of objects with peers – they depend on adult 'scaffolding' for participating in patterns of object use and rituals of play. How to use expressive game play will be part of staff training. Time should be set for caregivers to become involved in play with the infant. The value of live human playmates and teachers as support for development of infants' and toddlers' communication and exploration of objects must be recognized.
- **The infant's focus on things and surroundings and their communication with persons can be fostered differentially, but both are essential to healthy development.** Care for young infants must respond to motives for sociability and investigative curiosity as these are shown by each child. Too early emphasis on 'education' or 'intelligence' can blunt the pleasure of company. Exclusive focus on 'stimulating' the baby's 'scientific' interest (what he or she can learn about and do to things) may leave feelings for people neglected. On the other hand, lots of social stimulation and 'fun' may not allow space for investigating or 'searching'. Development of investigative curiosity is significant in the attainment of 'object permanence', executive memory and problem-solving about one year. Communication requires another kind of interest.

Social enjoyment, on the one hand, and thoughtful discovery, reflective learning and creativity are both important.
- **The child's self-esteem and pride in accomplishment, in responsibility for knowing and doing, and in sharing this personal pleasure in a group are key motives for learning in companionship.** Children, like adults, enjoy shared learning with objects. Childcare personnel will normally be ready to accept the one-year-old's increasing fluency of gestural and vocal expression. Information on the potential of this development of communicating and thinking in company should be a key part of the training for care of children entering their second year. In planning and administering care for infants, the advantages of different environments and a variety of activities are to be recognised. Childcare staff will, with experience of sharing infants' motivation for play, become expert in strengthening their charges' 'disposition to learn' in company. The child's pleasure in accomplishment can be responded to naturally and 'authentically', warmly, but without artificial or exaggerated emphasis. Fostering shared enjoyment and rich expressive communication should be normal practice in care of infants approaching the end of year one. Elaborate material resources are not particularly beneficial for infants. Toys designed to excite, such as electronic toys and computers that simulate live movements and reactions, are not necessary. Any benefits they may give will come from sharing what can be done, and less artificial objects may serve as well, or better.
- **Group care situations must rise to the challenge of caring for babies with different personalities and preferences.** The care community, like the family, should be a safe and responsive one, sensitive to differences. Manner of encouragement for individual attainment is one aspect of teaching and learning which differs significantly in different families, social groups and cultures. Infants differ by nature in their preference for private exploration of the world and studying objects on the one hand, and sociable sharing of feelings and

experiences on the other.

- **Infants become increasingly sensitive to changes in their company.** They benefit from maintaining attachments to peers as well as to caregivers. Staff training should anticipate that different relationships will form – relationships of staff to infants as individual persons, and relationships between the infants. Frequent change of staff will lead to insensitivity and missed opportunities. Periods of wariness with strangers (e. g. around 7-9 months) and the infant's need to maintain friendship or 'concordant intersubjectivity' both have implications for staff deployment and the impact of staff turnover in out of home care.

- **As relationships out of the home strengthen, there will be more need to communicate with the family.** Family factors must be given due consideration by all who take on care of infants. Sharing information about the child's changing ways and temperamentality will be valuable in building trust with children, as well as between parents and carers. There is evidence that the care situation can have a similar influence to that of the family. It is a factor shaping young children's personalities and preferences. Ideally, the parents will be well-acquainted with the personnel and the routines of the care place. They will share information with the staff about the child at home.

YEAR TWO:

- **Childcare staff should share ideas about toddlers' new consciousness of words.** They should be aware of the importance of imagination and emotion in sharing thoughts, and of the importance of intimate, confident, and consistent friendships for extending what is known and talked about. Time must be found for talk with a child when free from other compelling duties. Experiences and projects can be explored in spontaneous talk around working together on tasks, discovering meanings, and acknowledging the emotions that give value to experiences and things. Texts and pictures can be used to preserve interests and chart each child's development and imaginative projects. A consistent caregiver will know each child's 'narratives', and the level of language in which they are told. Different stories will evolve with different interested and constant companions, at home with the family, and in the childcare group.
- **Infants in the second year are sensitive to social manners and ways of doing things, as well as to others' talk about purposes, objects and feelings.** Their increased sensitivity to customs and manners, and to disapproval of the infringement of them, means they are more aware of differences among persons in the community and in a child-care group. Contrasting beliefs and ways of doing things may be a problem, especially in a community of families with different ethnic and cultural backgrounds. But differences can be explored to enrich the child's enjoyment of shared meanings. A collaborative community of learners, with carers who attend to the children's talk and inventions, can enrich toddlers' social and cultural development, supporting the family. Around 18-20 months toddlers are emotionally sensitive to their new understanding of what others mean. They can fear being misunderstood or confused by conflicting meanings in what people do or say. On the other hand, the child is more adaptable to play with company of different ages, and may benefit from play and cooperation with older children as well as peers.
- **Cooperative play in toddler groups is motivated by 'immediate imitation' of what peers are doing, and collaborations develop from this.** Before they can talk about what they are doing children communicate interest and pleasure non-verbally and use imitation to negotiate interests and form relationships. Toddlers enjoy imitating one another in practices and discoveries in peer groups, which encourages the development of conventional behaviours and facilitates word understanding. Childcare staff should be prepared to take a receptive, imitative part in group projects, too, both learning and teaching with the children. The toddler's

responses to the company of others raises issues about how playroom practice can support children playing together. Children differ in their sociability. Those with older siblings can be expected to be more confident and forthcoming in care settings. The benefits of mixing children of different ages together can be usefully explored.

- **Teasing and malicious play will be an indication of a child's failure to develop social skills with confidence**, and will have to be dealt with sensitively and in consultation with parents, to encourage happier cooperation in play. Parents and caregivers should consider each child's temperamental trait of confidence or 'interpersonal inhibition'. They should respond to the differences that may be expected between boys and girls, especially if the child is just beginning to attend out-of-home care.
- **Toddlers need physical activity and benefit from freedom to explore what they bodies can do and what they can be aware of.** Appreciation of dance and song can be cultivated to a higher level in the second year and the children learn nursery rhymes quickly and enjoy story telling supported by actions and play objects. Interest in animals and in communicating with them and caring for them can be fostered. Exploration of both the natural and artificial environment helps learning. Childcare staff should be instructed in the range of creative and artistic activities for toddlers. The nursery should be a place rich in interesting objects and 'works' or 'projects' to be shared.
- **A toddler can enjoy fantasy play with older children, but the older child may be impatient and try to dominate.** Staff need to foster a 'mutual-help' climate of emotional communication in play. The ability of 18-month-olds to participate in fantasy play with a sibling suggests developmental opportunities if young children play with older children in the same care setting. Periods when mixed aged groups may play and learn together with adult facilitation may help all the children learn both social and practical skills. The child's social environment and relationships will affect creative play and learning in the second year when memory, imagination and social awareness are all developing rapidly, and staff in provision centres should be sensitive to how responsive the child is to manners and speech as he or she strives to share thinking and meaningful action.
- **Increasing awareness of social feelings and how others evaluate and talk about them makes the two-year-old a sensitive social observer and a complex personality.** Care staff need to encourage development of a pro-social sense as well as a sense of well-being in each child and in the childcare group. Training should be aimed to foster the child's natural sociability and capacity for concern for others. Talk about gender, race and culture, social roles and responsibilities, differences of personality, right and wrong can foster fairness and social confidence from this age. Alternatively it can frighten and humiliate, depending in the sensitivity of the communication, and its fairness and respect in relation to the child's feelings. These are important issues in staff training and practice.
- **Practitioners' 'verbal intelligence' and level of education may be important but personality and willingness to teach and learn have primary importance in recruitment of staff.** A young child responds most strongly to consistent and cooperative interest and invention from a well-known teacher. Caregivers will need consistent time with the child and to have caregiving role extending over years, if they are to take on role of a wise and affectionate guide in responding to play with a toddler. The practitioner's sensitivity and responsiveness to emotion will certainly influence the child's understanding and social response, and require 'emotional learning' on both sides. Attention must be given to difficulties consequent on the child moving between the different contexts of home and the care setting
- **It is possible to monitor, assess, and, where necessary, facilitate emotional**

development in infants, young children, and their families. A focus on the infant and the family from multiple perspectives makes it possible to formulate developmental stages that describe the child's usual social and emotional functioning, and in this framework problems can be detected and understood, helping their resolution. Emotional relationships at home may be different from those in a care setting. It may be necessary for staff to communicate with parents about children that are insecure or troublesome. The emotional quality of relationships and their consistency, from the child's point of view, are important at this age. Family differences will require understanding and appropriately different responses from practitioners.

- **Care institutions should make explicit how they think about play and the value they place on communication and play with objects and offer to share these with parents.** Caregivers may give support and information when a family is having difficulty meeting the child's educational needs. It will be essential for care staff to be fully conscious of cultural differences in child-rearing and teaching customs and beliefs, and help promote a cooperative community for the child and family. *Te Whariki*, The New Zealand Early Childhood Curriculum, offers a model of preschool education provided by the people, places and things in the child's environment: the adults, the other children, the physical environment, and the resources. The curriculum integrates care and education and includes both specifically planned experiences and activities and interactions that arise spontaneously (Cullen, 1995; New Zealand Ministry of Education, 1993; Podmore, et al., 1998; Wylie, 1997).
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YEAR THREE:

- **In childcare settings, the third year is a time of impressive advances in social competence, communication, language and cooperation, as well as in thinking, creating and memory.** This requires childcare to provide a consistent setting for development of a community in which the children can build both relationships and projects of learning over extended periods of time. All spontaneous and inventive talents of toddlers and preschool children impose obligations on carers and teachers, who have to be ready to share exuberant discovery with the child at an appropriate age-related level -- in the child's Zone of Proximal Development of Vygotsky. Research testing rational and moral development of populations of children, and their 'thinking about thinking' or 'thinking about feelings', opens new topics for childcare staff and educators. This information from specialist research must be balanced against the larger wisdom that can be gained by spending time sympathetically and enthusiastically with individual children, making discoveries with them, inventing stories to share, and discussing 'rights' and 'wrongs' with sensitivity for emotions in relationships.
- **A three year old is beginning to appreciate adult guidance in more formal, structured instruction.** Learning is enriched if the program is flexible and sensitive to interests that the child, or group of children, discover for themselves. Imaginative play in collaborative groups is a natural way of exploring thoughts and plans and should be encouraged in child care, not set in opposition to learning from instruction by an expert. Here Rogoff's concept of 'apprenticeship in thinking' (Rogoff, 1990) is relevant and inspiring. Three-year-olds eagerly follow adult leadership in creative games involving gesture, voice and dance, and attend to stories of action and adventure. They learn from books with illustrations and can begin to read words for interesting and shared objects, actions and experiences. Early literacy (reading and writing) starts in the first three years of life and depends on a child's earliest experiences with books and stories shared with others. The child is sensitive to what the culture values and uses, including its technologies and tools. The three-year-olds experience is preparation for preschool and for the eventual transition to classroom teaching in primary school.
- **It is important for childcare staff to be aware of how well each child feels about him or herself, and about what is known and can be shared.** Toddlers experience emotions related to 'self-worth'. The pride of happy achievement is obvious and beneficial to learning. In the third year a child may be very sensitive to how others behave toward one another and toward the child, and what people say. Practitioners in childcare settings will need

to have experience in sharing and enriching children's narrations and creative representations, and accepting their pride. A sensitivity for temperamental differences is important

- **A humiliated child lacking confidence is unlikely to concentrate and learn, and may not communicate his or her distress and weakness of purpose.** Staff should be aware of signs of trouble in the life of a child that may be expressed as impulsiveness and combativeness, or as shyness and withdrawal. They, assisted by professionals in the emotional health of children, will have responsibility for giving special attention to children whose thinking and communication cause them confusion in learning, and distress or misunderstandings in relationships.
 - **Differences between children, including those between boys and girls, relate to what they enjoy doing, thinking about, and sharing.** They make collaborative ‘communities of learners’, as Bruner (1996) describes them, richer. Thoughtful observation and consistent sharing of activities can be aided by keeping a diary of each child's developing personality and interests -- and such records will be enriched if shared in the making with parents. The different values and beliefs of parents must be taken into consideration when communicating with them about their child’s development. Parents can contribute their creative talents and cultural knowledge to benefit staff and children in the playgroup.
 - **The playgroup and playground environments should offer situations for making things, and for representing ideas in different media, and areas where a child can work and discover, either with an adult helper, alone or in peer groups.** Children can work with different media of creative work and communication, and with their bodies in expressive action. There is worldwide admiration for the practice teaching by means of creative projects employing many media and working with the needs, interests and abilities of groups of children over extended periods of time that has been developed in Reggio Emilia schools, and for the Reggio concept of ‘the hundred languages of childhood’ (Malaguzzi, 1998)
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Boston Health Organisation	www.bostonhealth.org
British Educational Research Association	www.bera.ac.uk
Child Care Resource and Research Unit (CRRU)	www.crru.org
Communication and Blind Children	www.novir.net/novir/communication_and_blind_children_html
Council for Awards in Childcare and Education	www.cache.org.uk
Early Childhood Education Forum (National Children's Bureau)	www.ncb.org.uk/ecuecef.html
European Early Childhood Education Research Association (EECERA)	www.worc.ac.uk/eecera/
IBH (Balancing Parenting and Work)	www.ibh.org.uk
International Journal of Early Childhood	Graves@tempest.coedu.usf.edu
International Symposium on Early Childhood Education and Care in the 21st Century	www.ecec21.org
Maudley Research Unit	www.iop.kcl.ac.uk/main
McArthur Foundation	www.macfound.com
National Research Foundation	www.nichd.gov
Neil Stewart Associates	www.neilstewartassociates.com/SA113
New Zealand Education Department	www.ecdu.govt.nz
Office for Standards in Education (OFSTED)	www.ofsted.gov.uk
OMEP	http://members.aol.com.OMEPIntl/
Pennsylvania State University	www.psu.edu
PlayWay Programme (Korean Programme)	www.playway.co.kr/main
Project EASE	http://gseweb.harvard.edu/~pild/projectease.html
Scotland Commission for Regulation of Care	www.scotland.gov.uk/government/rcp/pubs.asp
Society for Research in Child Development	www.srkd.org
SureStart Programme	www.surestart.gov.uk
Teacher Training Association	www.canteach.gov.uk
Thomas Coran Unit	www.ioe.ac.uk/tcru
UK National Curriculum	www.nc.uk.net/home.html
UK Research Organisation (NFER)	www.nfer.ac.uk
UNESCO	www.unesco.org
University of Texas	www.utexas.edu
Valley View Preschool	www.cfsd.k12.az.us
Zero-to-Three Forum	www.zerotothree.org

We offer an overview of our findings concerning the benefits of out-of-home care for children under three, and draw implications for provision, for the training of staff, and for the monitoring of the quality of care. Special needs of children with developmental problems, and methods to cope with the consequences of difficult environments for young children, are also considered.

The Costs and Benefits of Care, and Conflicts of Interest.

High quality care for infants and toddlers, with suitable facilities and well-trained, well-paid staff, and ancillary support services to families, are inevitably expensive. There will be resource costs to consider when planning provision. State, district or metropolitan care for infants and young children should be conceived as part of a broader plan to assist young parents to take responsibility and pleasure in their role as carers for their children. It should be aimed to reduce the effects of family hardship and emotional stress that may result in youngsters who are a burden on the community, both emotionally and financially. Optimal childcare in early years requires collaboration between home and care establishment, both having the child's well-being and positive experience as their goal.

Though research studies in particular contexts may focus on different outcomes, it is certain that the policy of provision will affect the social and intellectual development of children. It can have beneficial consequences that will last through the children's lives and enrich the lives of those who share life with them. An unhappy insecure toddler can be a problem long into the future, instead of the unique source of energy, inspiration, pleasure and affection he or she should normally be.

Professor Shigeru Nakano, of the Research and Clinical Center for Child Development, Faculty of Education, Hokkaido University, presents evidence that social change in Japan, in favour of greater economic freedom for young adults, and especially for young women, has led to an erosion of the traditionally valued 'child's world' by the 'adult world', and measurable increases in child neglect and child abuse. Modern emphasis on accelerated child socialisation, fostering individual progress in education from early years rather than felt responsibility in relationships and in community, reflects an adult 'business' perspective, and leads to a 'cost-effect' 'evaluation' of 'outcomes'. 'Quality' of care is not measurable as a manufactured 'product'. Following systematic review of statistical evidence on parenting trends, Nakano advises against comprehensive provision of affordable out-of-home care for very young children, and the provision instead of leave from work with financial support to allow parents to have more time to gain experience in looking after their children in natural sensitive ways. He sees measurable benefits to the child, parents and the whole community in such a policy [Nakano, 2001, personal communication to Prof. Trevarthen].

Research on Effects of Out-of-Home Care for Children Under Three.

While research demonstrates that well-managed early learning experiences for children four years old and above have an immediate benefit for the children's cognitive and social development, for under 3s reservations have been expressed. The evidence is mixed and it

suggests that it would be valuable to institute new longitudinal studies, but their aim and design will require careful planning. Research supports the conclusion that, for children under 3, some loss of maternal sensitivity and of parents' confidence in communication with their infants and toddlers may be a 'cost' of longer hours of childcare, especially if this is of poorer quality. This accords with the observations made by Nakano, cited above.

'Impact' studies should observe a wide range of outcomes. Practitioners and policy makers may wish to consider if they value some outcomes more than others. We would recommend in depth and detailed studies of selected establishments rather than large scale surveys that make a limited sampling of measures and conditions. The medical 'treatment trial' model, with randomised controls is expensive and not appropriate, in our view, to obtain reliable information on the subtle needs and responses of children in care communities where the emotional climate of the establishment and quality of individual relationships are crucial. Universally applicable principles of motivation are clearer in sensitive descriptive case studies of well-chosen examples of care in their cultural setting, and these studies can be highly 'cost-effective'. The long term consequences of time spent in different forms of day care can only be assessed by longitudinal studies, and require thorough planning and substantial funding. There is need for new methods of research in care and learning situations to gain an accurate picture of the quality of communication on which all outcomes depend.

Our review draws attention to the complex ways a child's day care experience interacts with the child's individuality and temperament and the characteristics of the family -- especially the security and stability of relationships at home. It confirms the readiness of some infants to adapt to out-of-home care and benefit from it. Consequences of day care, and their persistence in later years, depend on the particular temperamental or motivational characteristics of the child -- secure or insecure; bold or timid. This is a factor that practitioners must be aware of and ready to discuss with parents. Both constitutional and culturally influenced differences in the development and needs of boys and girls in the early years should be kept in mind when making comparisons to improve matching care to needs. Children with depressed mothers or poor home environment may not cope well in child care centres without special attention. Parental employment may predispose a young child to insecurity, and boys are most likely to be affected.

The Ideal Childcare Community is Cooperative.

It is necessary, in every case, to provide for conditions that assure positive relationships with caregivers, such that affectionate relationships of the child with parents are confirmed, and those between parents and caregivers are mutually supportive in addressing the child's needs. In evaluating the argument that infants in day care are at risk for emotional insecurity and social maladjustment in light of current research results, we conclude that other interpretations of the data are more plausible and that further research on the factors moderating and mediating the effects of infant day care is needed. There is no support for the claim that an infant or toddler must be cared for by the mother to develop well emotionally and cognitively, but normally a mother will have strong motivation to be the child's closest companion, with support from the father who shares affection for the child.

In a community that values children, a single parent, father or mother, or parent substitute of either sex, may give affectionate and instructive support and companionship to an infant or toddler at home. In an ideal world the child has supportive and encouraging companionship from a number of persons at home, and out-of-home experience in the care of well-prepared staff who manage a positive and well-functioning community of children who develop stable relationships and in which they learn in collaboration.

In planning out-of-home care for any young child, attention should be given from the beginning to management of a strong, mutually supportive relationship between the family and the childcare establishment. They have common interest in the well-being and advancement of the life of the child. Secure attachments depend on consistency of care and interest. The mistrust, insensitivity, anger, aggression and lack of empathy of an insecure child will inevitably affect relationships with care staff, and improvements will require careful fostering of confident relationships between parents and staff.

Professional therapeutic advice may be necessary, and care personnel should be aware that a distressed young child's emotional health can respond quickly to sensitive interactive treatment by a skilled therapist, who will want to work with the family of the child to improve all relationships. Not all practitioner/child relationships will 'work' well, and managers of settings will need to be selective and sensitive when pairing child and adult, and willing to change care arrangements if necessary. Problems will be reduced by good teamwork and sharing of ideas between carers to address children's individual needs.

Definitions of Good Practice, and Implications for Recruitment and Training of Staff.

Childcare for children under 6 months must be protective of the infant's needs for attachment to a small group of consistent acquaintances who respond with close attention to the child's moods and behaviours. High adult/child ratios and consistent and close adult attention will be required. Staff will have to be motivated and trained to foster the intimate and protective care required. Young infants need to be cared for in small groups in a quiet environment, for most of the time separately from older children.

Maternal care, with its natural benefits to child and mother, can be substituted only by persons who know how to respond with the consistent intimacy, care, affection and enjoyment of play that a happy mother can give to a loved child. If care of this quality is to be given infants and toddlers out of the home, there will be a corresponding need to protect the mother's feelings and experience so her relationship with her child is not weakened. If an infant or toddler is to spend a high proportion of the day in out-of-family care, similar precautions are important for the relationships with fathers and siblings as well. Maternal work-time may not affect attachment to the mother, if childcare is appropriate and confirms the mother's affectionate relationship to her child.

Attachments of an infant or toddler to individual staff in childcare may be independent of attachments at home. Childcare settings should foster individual and unique attachments that confirm each child's well-being and self-confidence, and that help with difficulties. Toddlers whose relations with the teacher are warm and secure will later be popular with their peers. Preschoolers who have not had such quality of support in early years may be less friendly, careless, and more difficult. Quality of daycare provision can have measurable effects on pre-school children's attention, affection, vocalisation and aggression, with teachers and with peers.

An 'ideal' practitioner will give consistent and sustained responses to each child's individual personality and history of experiences. Any unavoidable change of relationships consequent on staff turnover will have to be prepared for and handled with care. Loss of an attachment figure, whether parent or not, can provoke distress with sometimes lasting detriment to the under-3 child's development and learning. The benefits of responsive and attentive care with warm sustained relationships have been seen in children's sociability, self-confidence and learning. When the care is of poor quality and opportunities for meaningful relationships with stable care providers are not available, non-parental care is associated with behaviour problems that may persist over school entry.

We have found little research on differences in the ways male and female staff in care centres treat boys and girls, or, indeed, on participation of males in care of children under three. Fathers can be good caregivers of young children, and some men enjoy and benefit from work with infants and toddlers. Child abuse by females and by males is rare in stress-free communities, and while precautions are necessary, fear of child abuse must not undermine the development of healthy and mutually beneficial companionship between men and the youngest members of the community.

Effects of Childcare on the Education of Infants and Toddlers

Research we have seen indicates that centre-based or 'nursery' care may benefit the language development and learning of under 3s, but that early home-based (child minding) care may give the best start. However, available results do not inspire confidence, and further research is needed to identify the most effective kind of care in relation to differences in children's needs. In data from the NICHD project, relationships of developmental outcomes of care to family income, quality of home environment, child gender, or ethnic group are not clear. Before policy

decisions are made about the best form of childcare for infants and toddlers, more reliable evidence is required, with particular attention to the style and quality of communication in each situation.

We are in agreement with the view adopted in most governments that a codified plan of classroom teaching, attempting to prescribe uniform instruction and stages of attainment, is not effective for children under 3. All the evidence is that support of spontaneous discovery and creative group learning in which the children's motivation has a guiding place brings the best and most lasting results. Assessment based on standards of knowledge and skill set by experts remote from the learning group is likely to have detrimental effects on both care staff moral and children's learning. This is not to say that general standards and shared goals are not important, especially in relation to the needs of the young child for responsive communication and companionship in learning about what older people use and value. It is the processes of collaborative learning and the purposes behind them that are important, not the specific outcome or 'product'.

Culturally valuable skills that prepare for later formal learning in school can be acquired spontaneously by toddlers in communities of learners sustained by affectionate relationships. Vygotsky's theory of the role of communication with a responsive adult in extending the young child's Zone of Proximal Development receives wide support. The type of early care does affect cooperative and imaginative play, and the affection in a relationship is important. In general parents or well-known adult carers help toddlers play at higher levels than can be accomplished with a peer. Children under three cannot sustain collaborative learning without adult some measure of 'scaffolding'.

The interpersonal quality of communication, its rhythms and expression, not its intensity or quantity, is critical in enlisting the interest and retention of young children to guidance and teaching by caregivers. There is insufficient research on the factors of nonverbal expression that determine if caregiving talk will be accepted and effective in guiding children in their behaviour and learning. In work with toddlers the style of talk will change depending on the nature of the task, the level of collaboration required, and the relationships and motives of the group. Care staff will need to develop a consciousness of the effects of their communication, and to recognise that it is not only what one says, but how one speaks that determines what a child will understand and want to use and remember. Staff need to be trained to perceive how each child seeks to share and explore. They should know how to establish joint attunement of expressions and interest so that shared experiences can be built, providing an arena for communicative motivation with a child or group of children. Both socio-affective or moral and intellectual aspects of education are important at all ages.

The Natural Sociability of Infants, and Differences, Including Those Between Girls and Boys.

The organisation of a care community should allow for appropriate interactions between infants, who may show sociability with peers from early in the first year, but who will need wider opportunities for sharing play and interaction at later ages. An important component of staff training will be information and hands-on experience of the changing sociability of children at different ages, and further experience with how children of the same or different ages may play and learn together, exhibiting natural sympathy and helpful or unhelpful moral attitudes to one another.

Toddlers usually benefit socially from experience in child-care settings with other children, but this will depend upon the security of attachments in the family. Opportunities for play with peers should be matched to the child's established relationships, developmental stage and temperament - with play conditions, length of play periods, etc. following the child's preferred pattern, which should be well-known to staff. Children with more experience in child-care with other children may be more skilled in their play with peers in child care, but the warmth of relationship with the mother and associated cognitive and language competence remains an important factor.

Male and female infants and toddlers tend to differ in their communication and cooperative play with peers, and, again, these behaviours depend on the differences in their relationships with parents and care staff. Toddlers take on social attitudes, including gender roles, from the community around them, and this is strengthened by verbal labeling. Gender-stereotypic play is important in imaginative role-play and in defining friendships between toddlers. Boys are shown to be more affected by disruptions in care than girls, and mothers' employment has more pronounced effects on boys as infants and toddlers. Girls appear to benefit from the enhanced self-esteem and self-confidence of a working mother.

Childcare staff should be sensitive to the differences in children's readiness to make social advances, or to benefit from the company of strangers, adults or children. Special care has to be taken to make sure that a shy child will benefit from learning opportunities in childcare, and gain pleasure and confidence from the companionship provided. Problem behaviours of boys are dependent on excitability and on stimulation by peers in play. Girls are less likely to be aroused to problem behaviour in peer play, and their status in the peer group that is less related to arousability and problem behaviour. These differences mean that issues of discipline and control may be more important with peer groups of boy toddlers, whose excitement and rivalry may need moderating or channeling. The preconceptions that adults have about the social roles of males and females will also be a factor, and will need sensitive interpretation when 'difficult' or 'shy' children are to be cared for.

Research proves that the environment of a daycare centres can affect children's emotions differently in relation to their different personalities. Enjoyment and activity of toddlers depends largely on the kind of activity offered and on its organisation and intensity, but will also depend on how 'outgoing' or 'shy' a given child is. Childcare in well-run centres is a powerful resource for helping children from difficult, at-risk backgrounds, giving an improved experience for the child and also possibly giving significant respite and encouragements to parents in trouble. This has important implications for the integration of services for social and community support, and childcare.

Social Consequences of Childcare and Establishing Good Relations with Parents.

The respected paediatrician, Berry Brazelton (1986), advises that, not only are infants of working parents at risk if we do not provide optimal substitute care for them, the parents will suffer as well. The opportunity to strengthen the family, rather than weaken it, can be provided around a new baby if such issues as parental leave, quality infant care, and attention to key emotional factors in the early separation of parents and infant are addressed in a well-informed and responsible way, with social support as needed. Childcare with long periods of separation can weaken a young child's attachment to family, on both sides.

Our evidence suggests that providers and practitioners have responsibility to inform parents about the needs of children where they appear inexperienced, uncertain or not coping with their responsibilities confidently and successfully. This information will have to be given respectfully

and with understanding, in a way that strengthens the parents' confidence in themselves and in the care providers and their willingness to collaborate with them in meeting the child's needs. Research confirms that parents and caregivers may have different perspectives on the child, and these different accounts can inform one another. Fostering two-way communication with parents should be an aim of the caregiving staff, and skills for this should be included in training.

An American study concluded that it is important to raise consciousness of parents before they have children, to avoid having to battle with feelings of guilt later. While many parents see their role mostly as keeping the child from harm, advocates for children want parents to seek out 'superior experiences' for their children - not just adequate or baseline appropriate interactions for social, emotional and intellectual development. These observations from an industrially advanced culture indicate a general lack of awareness of the child's most significant needs for psychological growth -- at least in regard to the ways these needs are conceived by professionals in developmental science and education.

Entry into daycare must involve the child, parents and care staff in a progressive 'settling in'. Practitioners need to be aware that difficulties at this stage might be result of different 'relationship formats' between home and the childcare setting. Appreciation of the child's perspective at the beginning of the new experience is important, but has received little attention in research so far.

A diary of observations made by parents and educators, and of discussions between them, recording each child's discoveries and development through under-threes at home and in playgroup and nursery school can build up picture of early experience and growth, and this will be valuable in arranging the best transition to pre-school and early primary. Different ways of keeping records - by drawings, conversations noted down, photographs, video and sound recordings - can be explored. Children are subject to the narratives adults construct about them and their perceived potentials and limitations as persons. The narratives constructed by parents, the prime educators, are of particular and lasting importance.

Dealing with Problems

Most observers agree that a degree of firm and consistent adult guidance and control is necessary for a young child's 'socialisation'. The degree of control considered optimal differs in different social groups and cultures. Children also learn quickly by imitating the examples of conduct that other's offer. These differences are of great importance to child-care staff. Parents use a variety of control techniques, more or less conflictual, modifying their behaviour in different degrees to suit children's age and capacities. They respond in different ways to the emotions and intentions that the child expresses. The same differences apply to professional childcare personnel, who should be trained and experienced in flexible and constructive response to children's differing and changing needs for control and example.

Family change -- divorce, birth of sibling -- can transform family relationships and affect infants or toddlers, perhaps in ways they will never forget. Parental separation and divorce affects boys and girls in different ways. Family discord has significant effects on children's emotional health. Social understanding in children is first exercised in intimate family life during infancy, and begins with the first interest in interactions with, and between, different family members.

Childcare staff should be trained to recognise signs of family crisis affecting a child's emotions, well-being and sense of self-worth, and to respond to child and parents in the most supportive way, seeking more experienced professional help when necessary.

Cultural Differences Influencing the Practice and Effects of Childcare

Mother's and fathers everywhere seem to share the same basic goals, but differ in their beliefs about the nature of children, and in the types of behaviour they want the children to acquire. The different expectations of childhood are important for childcare, and childcare staff should be trained to understand these differences. There are no universal and absolute principles of childcare that can be taught out of the context of cultural beliefs and practices, but evidence from different countries (including African countries, The Netherlands, Bahrain, Israel, Japan, Germany, New Zealand, Italy, Sweden, France, the US and The UK) suggests that there can be no substitute for thoughtful and affectionate response to the young child's enthusiasm for companionship in learning, whatever the traditional customs of teaching.

In mixed communities with parents of different ethnic and cultural background, focus on learning about a variety of ways of knowing and acting can enrich learning in a care group. Careful attention to language differences and the different opportunities immigrant families have for learning the prevalent language of the community will be important. Positive attitudes to different beliefs and practices can be fostered without diminishing the child's pride in belonging to, or growing in, a particular culture. Thus educational aims can be aims of the mixed community.

As we have insisted, infants soon become attracted to what can be learned from more skilled companions -- provision of protective care is not their only need. Allowance can be made for different ideas of what is knowable and valued, between parents, different families, and families and the larger community, including the educational establishment. Early childcare is at the nexus of the processes of cultural transmission and renewal. Discussions with parents will have to explore different understandings of the child's world, aiming to learn and draw benefit for the child from the differing perspectives and relationships.

The pattern of relationships that parents and children attending child care have may be different from those experienced by children cared for at home but that is not to say that they are 'inferior' or less valuable. But society may have preference for one form of relationship and interaction patterns. There are wide differences in reliance on out-of-home care in different countries. The Swedish practice of support for full-time parental care in early infancy, then quality childcare out of home, is popular with parents, but results in later school performance in Sweden may suggest that earlier childcare, before one year, also has benefits. Evidence of possible negative implications of day care for parent-child attachment and emotional security of children conflicts with data from a number of countries showing positive effects on children's developing social competence, proving that delicate decision-making will be required in planning childcare.

The Management Policy and Philosophy of Early Childcare.

Childcare staff and managers should all be encouraged to develop their own sure and clear ideas, beliefs and values regarding their work, discussing different points of view and experiences, and at the same time cultivating authentic and happy immediate response to the real children's changing emotions and interests. Sound and well-rounded 'evidence based' information on the basic motivations in a child's developing relationships and learning is indispensable, but the advice of academics, research experts or administrative authorities and advisors should not be obeyed blindly.

Above all, the mind of a child should not be conceived as an isolated cognitive entity, or as simply reactive in its emotions and learning. There is no substitute for steady hands-on experience of living with young children, well-tested moral and intellectual judgment, and generous common sense. Thinking, even of an infant, depends on shared feelings and

experiences (Hobson, 2002).

Before any attempt to 'impose' external prescription for practice, practitioners should be given help and encouragement to articulate their implicit theories of practice, and the ways in which they construe the child.

Approaches to childcare, such as that put into practice in the schools of Reggio Emilia in Italy, where strong friendships and discovery are facilitated, provide what children need to motivate their learning. Companionship and learning in Reggio may profitably include relationships that the child has been helped to establish outwith the daycare context, in the town, involving the child with a variety of persons, such as a supermarket manager, a waterworks engineer, artists, actors, puppeteers, etc., doing many different tasks. They foster motivated sharing of feelings as well as memorable and meaningful experiences, for both the children and the adults. It is widely understood that volunteer adult assistants in childcare establishments, including parents, and older siblings out of school time, can play an important part in providing toddlers and preschool children with talk and learning opportunities that can usefully complement those offered by childcare staff acting as teachers. Adults with special skills – artists, dramatists, musicians, builders, athletes, etc. – can help toddlers share constructive and creative activity.

The personal characteristics and self-confidence of the caregiver in learning and sharing, and the intimacy, affection and consistency of their relation to each child, as well as to the family of the child, are what define high-quality care, set within the behaviour and learning of the companionship group at the place of care. Yet, these fundamental needs are often not at the forefront of public negotiations between parents and policy makers.

Nursery caregivers, playgroup staff and preschool teachers can give expert attention of complementary kinds to the child's early motives for investigative and collaborative learning, and advise on the most appropriate and rewarding learning activities for children under 3. Characteristics and practices of caregivers that are found in 'high-quality' day care can facilitate optimal development in young children, and providers need to understand them thoroughly.

We are led to stress the importance of appropriate selection, training and previous educational experience of practitioners, and on-going appraisal of their work and confidence in what they are doing. Any such appraisal must be close, constructive and supportive -- not distant and judgmental or impersonal. It must attract the confidence, willing attention and interest of those appraised. It is not reliable to assess quality of interpersonal communication or teaching-and-learning with young children by quantitative measuring of 'outcomes' defined abstractly.

Effective application of positive feedback on parents', caregivers' and teachers' communication with young children is achieved by the 'Spin' technique of Video Interaction Guidance (Forsyth, et al., 1995; Janssen and Wels, 1997; Wels and Janssen, 1997; website, <<http://www.dundee.ac.uk/psychology/spinivconference>>). Instructional context is an important mediator of teachers' directiveness and different modes or tones of directiveness have differential effects on child attention, actions and language. The communicative aspect of care must be planned as a key component in training of care staff. In-service training of day-care staff can improve with coaching in how to communicate with children, and in appropriate use of teaching technology without displacing the natural needs of young children for social interaction

If classroom assistants (including nursery nurses) are left to adopt the 'teacherly' habits that may be appropriate for older children, they may follow a narrowly defined model of teaching. The technology and ideology of education as teaching can damage its very purpose, namely the growth and development of the individual child in social contexts. This covers a much wider range of goals in learning and teaching for preschool children than the curriculum for instruction in defined field of knowledge that may be required to direct and monitor school learning of older

children.

Practitioners and managers should be trained to monitor the impact of their disciplinary interventions, and work at getting the most desirable results, with recognition that the quality and consistency of relationships are important in the child's acceptance of discipline, as well as in instruction. Research shows that lax or over reactive discipline is not likely to solve children's behaviour problems, which, in turn, tend to provoke caregivers to lose control.

As primary health care providers, nurses and child psychotherapists can educate and assist parents, caregivers, and policy-makers concerning the broad array of day-care features, including interpersonal characteristics of caregivers that should be considered. Structured social interaction coaching can increase positive interactions, especially of socially withdrawn children, and teachers value the experience.

INDIVIDUALITY AND SPECIAL NEEDS

Staff Skills for Dealing with Problem Behaviours.

Entry to day care can be a gateway to problem behaviours and difficulties that should be recognised as an invitation to understand the development of the individual child. Parents and toddlers may be entangled in stressful and coercive relationships that call for support and advice from daycare staff. Children with violent fantasy are anxious and likely to be difficult, with need for specially sensitive care in developing language, social relations, peer play, and moral sensibility. Time in day care can be beneficial for children with behavioural difficulties, or whose parent perceive them to be difficult. Daycare staff will need training in how to meet this challenge. Practitioners may perceive some children as more attractive or responsive as partners in interactions than others. This, too, is an issue for reflection and development of special professional practice.

A comprehensive 'therapeutic nursery' program is an effective way to lead seriously troubled preschoolers to gains in behaviour and social and emotional growth, and helps mothers of troubled children to become less depressed. Attachment skills can be enhanced by training parents or childcare staff, with lasting benefits to children's development in other contexts. Caregivers can foster imaginative play as a means for a child resolving the distressing experience of the first day of school. These are topics to be included in training of childcare staff, and in planning the program of care.

The nature of consistent differences in temperament, and the ways children adapt in relationships are fundamental considerations for practitioners, and need clarification in their training. Notice should be taken of how a child behaves with different partners, and in different contexts. Differences in 'boldness', 'inhibition' or 'shyness' may be enduring and inherited. They are part of the variation that makes human communities complex and cooperative. Temperamental features in interpersonal life are aspects of the motivation that makes learning in negotiated cooperation possible between persons of different background and experience.

A social/emotional behaviour problem may indicate learning and behavioural difficulties linked to a disorder in language and communication skills. Experience of the difficulties children between two and three may have with language is important for childcare professionals, who should be equipped with knowledge of how to use methods that help a child communicate more effectively. A functional interpretation of early language, sensitive to the social uses of speech, is

indispensable. Language, particularly for a young child, is a way of relating to people, as well as for thinking

Through observation and recording, practitioners have a role in identifying difficulties and seeking therapeutic help. Practitioners may need specific training if they are to help children with some language impairments due to abnormal development, or those who have been deprived of normal responsive maternal communication. A mother, father or other principle caregiver may need help in making their speech and other forms of communication more comprehensible to their child.

Dealing with Specific Disabilities.

Childcare staff caring for children in the second and third year should know that autism is a rather rare condition and be clear that it is not the same as shyness or timidity. It is not just a cognitive disorder, but always affects the ways a child understands and responds to other people and their feeling and thinking. If autism is suspected, by child carers or parents, professional guidance must be sought. Treatment may be long and wearing. The condition may become very distressing for parents and siblings, and they will need skilled support. Training in appropriate styles of communication may help practitioners to develop social responsiveness in autistic children early, when it is most effective. Musical interactions are particularly effective in attracting some autistic youngsters to engage in pleasurable communication, and learn.

Instructive interventions such as speech training for language, and drill in daily activities, or in perception of emotional expressions, are intended to develop skills in ways that are related to children's responses. They try not to address 'deficits' by comparison to motivations and interests normally expected of young children. However, failure to address the motives, fantasies and emotions of a young child with autism, and to encourage communication of these, means that training of the 'conditioning' type generally does not lead to lasting gains in emotional control or language. Early caregiver-infant styles of communication can be fostered to increase social responsiveness of autistic toddlers. The National Autistic Society offers help and advice. Parental groups can be powerful allies for a caregiver who wishes to offer integrated care in which the autistic child may benefit from intuitive responses of peers in play.

ADHD may be difficult for practitioners to identify. Improvements in communication, assisted by advice or guidance from specialists, may result in improvements across a range of behaviours, and in learning. It is important for staff and parents to be sure that inattention and hyperactivity are not expressions of anxiety of a child in difficult emotional circumstances, and that the child's behaviour is not simply an appeal for affectionate help.

The development of a blind or deaf infant or toddler depends on the intimacy of communication with parents and caregivers. Attachment may not be affected in any way if adult care is sensitive and warm. A blind child will probably be identified at birth. Fostering communication depends upon recognition by parents and other caregivers that the child will be responsive to touch and speech and enjoy affectionate and playful interactions and be fully expressive. Early identification of deafness is important for its treatment with hearing aids, remedial communication and sign language instruction, and childcare staff should be trained to recognise tell-tale signs, and know how to obtain specialist help and advice. Screening for deafness should be introduced for all newborns. The use of signs with a deaf child does not inhibit language acquisition because it is a true language of the hands. Preverbal communication skills underpin development of spoken language, and profoundly deaf young children, either with cochlear implants or successful users of hearing aids, show similar patterns of preverbal communication. This is not the case with unsuccessful hearing-aid users. Autonomy of the child in adult-child

interactions is important for development of language, which is something a child does, not just something to be learned. Social support mothers in the early months of deaf infants' lives has marked benefits on infants' interactive stress resistance and communication, and childcare staff need similar help and advice with a deaf infant. Deaf parents of a deaf infant cope better, intruding less and coordinating better with the child, and can give good example for hearing adults caring for deaf infants or toddlers.

Support and intervention for a child with Down's syndrome should be developed to correspond with the child's particular skills and needs, especially their slow processing of visual information and their slow language development. Carers, like parents, must learn to adopt a pace of interaction that meets the child's slower initiatives. Skilful use of play can engage and enhance the responses of the child. Practitioners caring for children with Down's syndrome may benefit from copying the successful communication styles adopted by mothers, slowing their initiatives and tending to imitate.

Early, intensive intervention can promote intellectual development of premature infants who may have impairments in their motor coordination, attention and learning. The quality of interactions between infants and caregivers and their joint attention to objects and events influences how well preterm infants develop as toddlers.

Interventions need to be focused on improving the social skills of children with special needs and assisting toddlers or older children who are developing typically to understand the behaviours of peers with special developmental needs. Children with disabilities can do well and respond to stimulating and intuitively helpful attentions from other children in well-supervised and active mixed age classes or playrooms. Play with typically developing children gives support to mother's efforts to help their children relate to others and avoid rejection. Programs that are designed to promote tolerance and acceptance show benefits to all children.

DIFFICULT RELATIONSHIPS AND HARD ENVIRONMENTS

Experienced Childcare Can Give Effective Help to Parents in Difficulties, But Staff May Themselves Have Problems.

Childcare may offer a welcome escape for a depressed mother and her child, and childcare staff can be experienced in ways of assisting the mother to recover an attuned and enjoyable companionship. The characteristics of a depressed mother's communication and negative affective tone, their immediate effects on an infant's emotional engagement and late consequences for the child's further development, also apply to any caregiver who is unable to attune to an infant's needs because he or she is emotionally depressed and unable to respond with natural pleasure and affection. Toddlers also withdraw from a depressed adult, and this weakens the relationship between them and their collaborations in play and learning. The negative effects of intrusive or unresponsive communication on an infant's or toddler's behaviour and interest should be made clear in childcare training.

Childcare practitioners must be protected from depression due to unsympathetic management or overwork, and must be assisted when they find their work arduous. Depressed adults are less sensitively focused on infants' experience, and are less able to share emotions and thoughts. They cannot offer care that is attuned and collaborative at the level the child requires. Counseling should be available for care staff in trouble with their work and unhappy in their contact with the children.

Infants and toddlers vary in resilience to a caregiver's depression, but all are sensitive, and can be discouraged in their attention and learning by the company of a sad or inattentive adult. Some may be seriously affected and unable to develop as they should. Again, this situation can be alleviated if others can offer help, and childcare staff can assist in resolving one another's difficulties of those of parents, by giving advice and example concerning the ways a young child's communication, enjoyment, thinking and learning can be fostered in affection.

Depressed adults can be trained to more normal levels of interactive coordination with a young child by drawing their attention to the effects of well-paced and expressive responses and invitations. Advice to imitate the child can help focus attention and elicit interactions.

Correction for Behaviour Disorders, and Dealing with Neglected or Maltreated Children.

Caregivers, like parents, have effects on the behaviour of infants and toddlers that depend upon the consistency, firmness, interpersonal warmth and attunement and fairness of their communications. Firm decisiveness combined with warm affection is beneficial, but individual styles of caregiving will differ. Training in how to give effective guidance to social behaviour as well as encouragement for lively interest, creativity and learning will be essential for childcare staff.

Poor Developmental Attainment is usually due to family dysfunction, hostile parenting and low neighbourhood safety. The effects of standard good-quality childcare on child development will depend on factors in each child's home environment. Childcare should be alert to the signs of families in difficulties and integrated with social support services. Childcare centres do not give benefits to all young children, and children of depressed mothers may not respond well.

Maltreated children do not adapt well to peer groups and care situations, and lack interpersonal skills. An abused child will require sensitive care, and may need specialist therapy to build confidence in relationships and communication of feelings and interests. Childcare that does not allow for secure attachment relationships to grow and develop will fail in its responsibilities. Good friendships with peers and carers in early years can help a child to a happier, socially trouble-free and interesting life. This identifies the main potential advantages and the responsibilities of high quality early childcare. Practitioners will have to develop ways of reacting to aggressive children, and to the difficulties that aggression can cause in relationships with other children.

Carers should be trained, by communication that is 'culturally sensitive, positive, relevant and clear', to help them facilitate early education or deal with problems in childcare. Of Sameroff's 3 types of intervention for dealing with childhood disability -- 'remediation', 'redefinition' and 're-education' -- the last two, changing the focus on disability to go for positive outcomes, and teaching effective ways of coping, are important in the initial training and in-service work with childcare personnel. It is not always possible to make a firm diagnosis of a child's 'problem' as a 'condition' requiring 'treatment'. Rating scales and assessment instruments require interpretation in relation to a child's age, family situation, and other factors.

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