

MEDICAL PSYCHOLOGY UNIT

University of Cambridge

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The work of this Unit is mainly concerned with research on child development, with particular emphasis on the growth and influence of mother-child relationships and the effects of medical practice on children and their parents. The Unit is jointly administered by the Medical School (Regius Professor of Physic, Professor W.J.H. Butterfield) and the Department of Experimental Psychology (Professor O.L. Zangwill) and much of the research is now supported by a grant from the Social Science Research Council, the Health Education Council and through studentships from the Medical Research Council and the Social Science Research Council. From 1970 to 1975 most of the research, apart from that done under studentships, was supported by grants from the Muffield Foundation and the Mental Health Research Fund. Members of the Unit teach for various departments in the University, especially Social and Political Sciences and Experimental Psychology and the Medical Sciences Tripos.

The largest study currently in progress is a longitudinal study of mother-child relationships and aspects of child development. Dr. Martin Richards and Judy (Bernal) Dunn have been collecting data from a sample of about 100 Cambridge mothers and their first- or second-born children during the first year of life. Their research has been particularly directed towards detailed observational study of the mother-infant interaction. One of the foci has been to look at newborn characteristics and to try to trace their influence upon the pattern of interaction during the first year - for example, upon feeding, sleeping and crying patterns. Another interest is the influence of obstetric medication on mother-infant interaction. The data-collection phase of this study is now complete and work is concentrated on the analysis of data and the writing-up of results. Increasingly we are able to begin the analysis of continuities and changes in the children across the age range that we have studied.

Judy Dunn has now left the Unit to take up an appointment at the MRC Unit at Madingley and most of her work has been taken over by Barbara Antonis.

Mrs. Frances Barnes is engaged on a study of these same children at 2½-3 years, and her interest is mainly in analysing the patterns of communication in the family in as far as it is informative about the underlying relationships - the ideas here deriving ultimately from Bateson's studies. Data are largely obtained through observation and the analysis of tape recordings.

Another interest is in the relationship between the children's status at birth and their later development. A number of interesting correlations have been found between unpredictability in behaviour at 3 years, accidents suffered, handedness and other measures and the history of the baby's birth and his status in the neonatal period.

The same sample of children is being studied again at four and five years by Brabara Antonis, who is continuing the work begun by Paul Light. These later follow-ups employ more structured testing situations and include data collected at the children's schools. The two main emphases are a battery of Piaget-derived measures of cognitive development and a battery of tests designed to evaluate the child's ability to perceive the perspectives of other people: to 'see the other person's point of view' (the ideas here deriving from G.H. Mead).

Although the theories examined at the various ages are obviously very disparate, it is also intended that the studies should examine longitudinal relationships, and a range of other 'follow-up' data is being gathered at the later ages.

Richard Backus. Major study is that of the acquisition of attitudes of medical students in the areas of obstetrics and possibly paediatrics. Also a study of attitude change around the course "Social aspects of medicine", with follow-up relating this to the major study.

Roger Bacon is completing a year's study of the literature on child abuse and is just starting a pilot project on the identification, management and treatment of child abuse in Cambridgeshire. His particular area of interest is in social work and child-care services, and the attitudes of abusing and 'at risk' parents and families.

Tony Booth is conducting a mainly theoretical study within developmental psychology. He interprets the task of developmental psychology as the study of the human life-history and is interested in examining the conceptions of the life-history embodied within current developmental theory and empirical studies. He is looking at the influence of conceptions of death, he is reversing a prevalent concern with the determination of the present by the past by looking at the way the biological future influences present personal life and he hopes to look at the theoretical notions of the 'self and its continuity' in terms of its historical development and the relationship it exhibits between the individual and society.

Denise Campbell is setting up a study to evaluate the effect of abortion on perinatal mortality rates. Also she is involved with the data preparation and analysis of the longitudinal study of mother-child relationship.

Jenny Corrigall is working on a follow-up study of a group of Down's Syndrome children. This study is using some of the observational and infant assessment techniques that have been developed in the large longitudinal study of normal children.

Michael Craft, Ann Gilbert, Ray Croucher & Jane Henderson are funded by the Health Education Council to carry out a three-year programme of action research in preventive dentistry, designed to assemble a package of motivation techniques in dental health education. This work is targeted at specific high risk population groups: young mothers with pre-school children; adolescents 13-16 years; young adults 16-20 years; and will use adventure learning concepts derived from Montessorri, Froebel and Dewi, now commonly employed in primary schools.

Jane Henderson works part-time on a specific study that aims to investigate the dental health behaviour of a national sample of young adults. This study is jointly funded between the Health Education Council and the Cocoa, Chocolate and Confectionary Alliance. In the main study successful results have been achieved with the adolescent group and an amended programme is now being tested in a feasibility study. The preschool work is still under promising pilot development, where evaluation techniques have proved to be a vital factor. Further work with child minders and in maternity clinics is planned. A new initiative to develop a snacks incentive scheme in secondary schools (in conjunction with a major food company) will also be tested in the immediate future.

Joanna Hawthorne has set up a study similar to the Exeter study (see below) in collaboration with Dr. N.C.R. Robertson and Dr. N. Barnes at the Special Care Baby Unit at Cambridge. Half of the mothers have received extra support from the hospital staff and the community which may have an effect on how they react to the separation and development of their low birthweight babies.

Chris Henshall is working on a study of children's concepts of gender and gender roles, and the relationship of these concepts to their own behaviour and to their parents' behaviour and attitudes.

Nicola Jacques is completing a study of the development of low birthweight infants which pays particular attention to problems of mother-infant separation. Most of this work was carried out at the Royal Devon & Exeter Hospital in collaboration with Dr. F.S.W. Brimblecombe and his colleagues. Martin Richards was involved in a study of parental visiting of infants in the Special Care Nursery at the same hospital which was funded by the DHSS.

Elena Lieven is working on the role of speech to young children in their own language development. She is studying individual differences between mother-child pairs in their linguistic communication and changes in the interaction as the child's

language develops. In 1974 she completed a short period of fieldwork in the West Sepik District of Papua New Guinea, studying language development and some aspects of socialisation. She is also involved in teaching the "Women in Society" course of the Social & Political Sciences and is interested in the development of gender identity and the socialisation of sex roles.

Graham Richardson is interested in the development of perception and language in seven to eleven year old children who are experiencing reading and spelling difficulties. One aspect being investigated is the recognition of complex, mono-orientated figures such as faces and words when inverted and reversed. Another characteristic being evaluated is these children's understanding and production of relational terms and time-ordered series (months of the year, etc.).

Jane Selbyis studying women's perceptions of their own sexual experiences and the importance of heterosexual relationships in their lives.

Ann Thorington is setting up an interview study on attitudes to pregnancy and its management, with the help of local GPs.

Michael Wood is looking at the interaction of congenital and environmental factors in the development of individual differences between children, and in mother-infant interaction styles. It is hoped to shed some light on the apparent inversion of intensity, found by R.Q. Bell and others, between the neonatal and pre-school periods.

Recent and forthcoming publications by members of the Unit

- Antonis, B. "The First Pregnancy: Mothering and attitudes to it in working and non-working mothers." Unpublished Ph.D. dissertation.
- Antonis, B., Allport, A. and Reynolds, P. 'On the division of attention: A disproof of the single channel hypothesis.' *Quart. J. Exp. Psychol.* 1972, 24(2), 225-235.
- Bacon, R. Problems in the relationship between Sociological Theory and Sociological Practice with special reference to the interpretation of attempted suicide by drug overdosing. Ph.D. Thesis, University of Cambridge.
- Bacon, R. Management of Resources for fostering and adoption in Region 5. A Study of Needs and Resources for Substitute Family Care. A confidential Report to the DHSS. (A summarised Report is published by the Association of British Adoption & Fostering Agencies)
- Bacon, R. Organization and Practice. Adoption and Fostering.
- Bacon, R. "Breaking Cycles" - a Review of "Cycles of Disadvantage". Adoption & Fostering.
- Bacon, R. Child-Care and Child Abuse-Connections & Implications. Adoption & Fostering, Dec. '77
- Bacon, R. Lack of Planning, Lack of Care. A Re-examination of the Wayne Brewer Report, to be published in Cranfield Social Policy Studies, Vol. 2.
- Barnes, F. Birth of a Ngoni child. *Man*, 49.
- Barnes, F. Paleolithic Man. In 'Insight on Human Biology', Australian Broadcasting Commission, pp.23-28, Sydney.
- Barnes, F. 'Biology of Man' ed. Stephen Boyden. Australian National University Press.
- Barnes, F. On having a relatively poor status at birth: some characteristics of the children and their mothers. Paper presented at the Spastics Society Developmental Neurology Meeting, Oxford, September 1974.
- Barnes, F. Handedness and Birth Stress in a Sample of Normal Children. *New Scientist* 67, No.959, 25 July 1975.
- Barnes, F. Accidents in the first three years of life. *Child: care, health and development* 1975, 1, 421-433.
- Campbell, D. Smoking Policies in Canadian Hospitals. *Dimensions in Health Services*, 53, 12, 1976.
- Clarke, A.H., Wyon, S.M. and Richards, M.P.M. Free play in nursery school children. *J. Child Psychol. Psychiat.*, 10, 205-16, 1969.
- Corrigan, J.M. Social participation in severely subnormal children during free play. (Forthcoming).
- Corrigan, J.M. and Santer, N.C. Weststrate. The verbal imitation skills of a SSN man - the analysis of a training programme. Paper presented at 3rd IASSMD, The Hague, 1973.
- Craft, M.H. and Sheiham, A. Attitudes to Prevention Amongst Dental Practitioners. A Comparison between the North and South of England. *Brit. dent. J.* 1976, 141.
- Craft, M.H. Preventive Dental Behaviour. A comparison of the attitudes of Dental Practitioners between their children and their patients. In press.
- Croucher, R.E. and Hetherington, R.W. The Saskatchewan Mental Health Index (SAMI). Mimeograph Applied Research Unit. Psychiatric Research, Quislian, Saskatchewan, Canada, October 1975
- Dunn (Bernal) J.F. Crying during the first 10 days of life, and maternal responses. *Developm. Med. Child Neurol.*, 14, 362-72, 1972.
- Dunn (Bernal) J.F. Attachment: some problems and possibilities. In M.P.M. Richards (ed.) 'The Integration of a Child into a Social World.' Cambridge Univ. Press, 1974.
- Dunn (Bernal) J.F. Night waking in the first 14 months. *Developm. Med. Child Neurol.*, 15, 760-769, 1973.
- Dunn (Bernal) J.F. Consistency and change in maternal style. Parent-Infant Interaction. Ciba Foundation Symposium No.33. Elsevier, 1975.
- Dunn J.F. Patterns of early interaction: continuities and consequences. In H.R. Schaffer (ed.) *Studies in Mother-Infant Interaction.* Academic Press 1977.

- Dunn (Bernal), J.F. and Richards, M.P.M. Social interaction in the first days of life. In H.R. Schaffer (ed.) 'The Origins of Human Social Relations'. Academic Press, 1971.
- Dunn (Bernal), J.F. and Richards, M.P.M. What can the zoologist tell us about human development. In A.S. Barnett (ed.) 'Ethology and Development' (Little Clinic Clubs in Developm. Med. No.47). Spastics Society and Heinemann Medical Books, 1973.
- Dunn (Bernal) J.F. and Richards, M.P.M. Observations on the developing relationship between mother and baby in the neonatal period. Presented at the Loch Lomond Symposium on Mother-Infant Interaction and to appear in 'Studies in mother-infant interaction by H.R. Schaffer. Academic Press, 1977.
- Henshall, C.H. The Ontogenesis of Gender Identity and Gender Roles: A review of the literature and a research proposal. Unpublished paper, 1977.
- Lieven, E. Conversations between Mothers and Young Children. Paper presented at 3rd Int. Symp. of Child Language, September 1975.
- Lieven, E. Conversations between Mothers and Young Children: individual differences and their implications for the study of language learning. In N. Waterson and C. Snow (eds.) 'The Development of Communication: Social and Pragmatic Factors in Language Acquisition' London, John Wiley, 1977.
- Lieven, E. Patriarchy, Red Shift, 4, 1977.
- Lieven, E. Turn-taking and Pragmatics: two issues in early child language. Paper presented at Psychology of Language Conf. Stirling, 1976. In P. Smith and R. Campbell (eds.) 'Recent Advances in Psychology of Language' Vol. N.Y. & London, Plenum Press (in press.)
- Lieven, E. and McShane, J. Language is a developing social skill. In D. Chivers and J. Herbert (eds.) 'Recent Advances in Primatology, Vol.1', Academic Press (in press).
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- Richards, M.P.M. (ed.) 'The Integration of a Child into a Social World' Cambridge University Press, 1974. Chapter: First steps in becoming social.
- Richards, M.P.M. The biological and the social. In Armistead, N. (ed.) 'Reconstructing Social Psychology'. London, Penguin Education, 1974.
- Richards, M.P.M. An ecological study of infant development in an urban setting in Britain. In P.H. Leiderman and S.R. Tulkin (eds.) 'Cultural and Social Influences in Infancy and Early Childhood'. In press.
- Richards, M.P.M. The Pros and Cons of Breast Feeding. Paper presented at the Joint Meeting of the British Paediatric Assoc. Council and the Medical Information Unit of the Spastics Society, March 1974.
- Richards, M.P.M. Non-accidental injury to children in an ecological perspective. In 'Non-accidental injury to children'. DHSS, HMSO 1975.
- Richards, M.P.M. Feeding and the early growth of the mother-child relationship. In Kretchmer, N. Rossi, E. and Sereni, F. (eds.) 'Modern Problems in Pediatrics'. No. 15 Milk and Lactation. Karger, Basel 1975.
- Richards, M.P.M. Interaction and the concept of development: the biological and the social revisited. In 'Interaction, Conversation and the Development of Language'. M. Lewis and A. Rosenblum (eds.) New York, John Wiley, 1977.
- Richards, M.P.M. History and the Study of Child Development. Presented at the 3rd Biennial Conference of the ISSBD, Guildford, July 1975.
- Richards, M.P.M. Innovation in Medical Practice: obstetricians and the induction of labour in Britain. Social Science and Medicine 9, 595-602, 1975.
- Richards, M.P.M. Parents and children and non-accidental injury. In A. White Franklin (ed.) 'The Challenge of Child Abuse', Academic Press, 1977.
- Richards, M.P.M. Effects on infant behaviour of analgesics and anaesthetics used in obstetrics. Paper presented at the 5th Conf. of the European Teratology Society, Italy 1976.
- Richards, M.P.M. The induction and acceleration of labour: some benefits and complications. Early Human Developm. 1, 3-17, 1977.

- Richards, M.P.M. A place of safety? An examination of the risks of hospital delivery. In 'The Place of Birth', J. Davis and S. Kitzinger (eds.) Oxford Univ. Press, in press 1977.
- Richards, M.P.M. Social relationships during infancy (Conduites du bébé: les fonctions de relation sociale). Part II Chapter 6, La Psychologie. l'Encyclopedie de la Pléiade, J. Piaget, J.P. Brouckart and P. Mounoud (eds.) Paris, Gallimard, in press 1977.
- Richards, M.P.M. Public Health and Medical Practice. In R. Monroe and M. Wilkins (eds.), The Biosciences and Society. Liverpool University Press, in press.
- Richards, M.P.M. and Bernal, J.F. An observational study of mother-infant interaction. In N. Blurton Jones (ed.) 'Ethological Studies of Child Behaviour' Cambridge Univ. Press, 1972.
- Richards, M.P.M.; Bernal, J.F. and Brackbill, Y. Early behavioural differences: gender or circumcision? Developmental Psychobiology 9, 89-95, 1976.
- Richards, M.P.M., Dunn, J.F. and Antonis, B. Caretaking in the first year of life: The role of fathers and mothers' social isolation. Child: care, health and development 3 23.36, 1977.
- Richards, M.P.M. and Robertson, N.R.C. Admission and discharge policies for special care baby units. In Brimblecombe, Richards and Robertson (eds.) (see below)
- Chalmers, I. and Richards, M.P.M. The effectiveness of present day obstetric practice. In Chard and Richards (eds.) see below.
- Chard, T. and Richards, M.P.M. (eds.) Hazards and benefits of the new obstetrics. Clinics in Developm. Med., Spastics Publications, No.64, 1977.
- Chisholm, J.J. and Richards, M.P.M. Swaddling, cradleboards and the development of children. Early Human Development 1978, in press.
- Hawthorne, J.T., Richards, M.P.M. and Callon, M. Parental visiting of children in a special care nursery. In Brimblecombe, Richards and Robertson (eds.) (see below)
- Brimblecombe, F.S.W., Richards, M.P.M. and Robertson, N.C.R. (eds.) Early Separation and Special Care Nurseries. Clinics in Developm. Med., Spastics Publications, in press 1977
- Richardson, G. The Cartesian frame of reference: A structure unifying the description of dyslexia. J. Psycholinguistic Res., 3, 15-63, 1974.

CURRENTLY WORKING IN THE MEDICAL PSYCHOLOGY UNIT
UNIVERSITY OF CAMBRIDGE

Free School Lane, Cambridge CB2 3RF (tel. (0223) 58381)

BARBARA ANTONIS, B.Sc. The first pregnancy and attitudes to mothering of working and non-working women. Follow-up at 4 and 5½ years of the 100 longitudinal study children.

FRANCES BARNES, M.B., B.Chir. Follow-up at 3 years of the 100 longitudinal study children. Development of autonomy in children and patterns of communication within the family.

RICHARD BACKUS, M.D. 1st year research student. Education of Clinical Students with special reference to Obstetrics.

ROGER BACON, M.A. Ph.D. Non-accidental injury to children.

TONY BOOTH, B.A., Dip.Ed.Psych. 2nd year research student SSRC.

DENISE CAMPBELL, M.A. 1st year research student, Epidemiology of Perinatal Mortality.

JENNY CORRIGALL, M.A. Mother-infant in interaction over the first 15 months of life in Down's syndrome children.

KAZUKO EISHIMA, B.A. Lecturer in Child Psychology, Chikushi Junior College of Japan, visiting until May 1978. The mother-child interaction in infancy.

JOANNA HAWTHORNE, B.A. 3rd year research student, MRC. The problems of mother-baby separation in special care baby units.

CHRIS HENSHALL, B.A. 2nd year research student, SSRC. Gender and sex role development in children.

NICOLA JACQUES, B.A. 5th year research student, MRC. The development of premature infants with particular reference to problems of mother-infant separation. This project is being carried out at the Royal Devon & Exeter Hospital, Heavitree, Exeter.

ELENA LIEVEN, M.A. University Demonstrator in Experimental Psychology. The role of the speech environment of young children in their own language acquisition. Sex differences and the development of gender identity.

PHYLLIS OSBOURN. Secretary.

MARTIN RICHARDS, Ph.D. Lecturer in Social Psychology. Longitudinal study of mother-child relationships. Effects of medical practice on child development.

GRAHAM RICHARDSON, M.S. Aspects of language and visual perception in children with reading retardation.

ALAN RUSSELL, Ph.D., Senior Lecturer in Education, Flinders University of South Australia, visiting until May 1978. The mother-child relationship in infancy.

JANE SELBY, M.A. 1st year graduate student, SSRC. Women's perceptions of their own sexual experiences and the importance of heterosexual relationships in their lives.

ANN THORINGTON, 3rd year research student, SSRC. Attitudes to pregnancy and its management.

MIKE WOOD, B.Sc. 6th year research student, SSRC. The interaction of constitutional and environmental factors in the development of individual differences during the first year of life.

HEALTH EDUCATION COUNCIL : DENTAL HEALTH PROJECT (Tel. Cambridge 63389)

MICHAEL CRAFT, M.Med.Sci., LDS, RCS, ANN GILBERT, RAY CROUCHER, B.Sc., M.A. and JANE HENDERSON. An action research project aimed at developing a package for motivating preventive dental behaviour in pre-school children, adolescents and young adults.

ASSOCIATED:

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