CHAPTER ONE

Finding Out about Children



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What is child psychology and why do we need it? Let us turn to these elementary questions first, for there is little point in giving an account of the subject until we have spelled out what it is we are talking about and why.

What is Child Psychology?

Nature and aims

Child psychology is the *scientific* study of children's behaviour and development.

Note the emphasis on the word 'scientific', for it is this which distinguishes child psychology from other, more subjective ways of looking at children. Psychologists attempt to describe and explain children's behaviour and the way it changes over age, and do so in ways that do not depend on vague impressions, guesswork or armchair theorizing but on the careful, systematic collection of empirical data. Research on children need not involve formal settings like laboratories, although these can be useful for certain types of investigation; data can be collected just as systematically from such seemingly chaotic situations as playgrounds, discos or the family dinner table. But whatever the setting, the aim of child psychology is to assemble a knowledge base which can provide insight both into the nature of childhood generally and into the distinctive characteristics of individual children.

In this way, we should become able to answer three kinds of questions, i.e. *when*, *how* and *why* questions.

- *When.* These are perhaps the most obvious ones to ask, for they refer to the process of continuous change which is the hallmark of childhood and makes the tracking of individual children so fascinating. *Milestones of development* take many forms: some are obvious ones, such as the ages when children first become able to walk and talk; others are less obvious in that they refer to more subtle developments, e.g. the age when children become capable of make-believe play, of taking the perspective of another person or of understanding the meaning of print. In each case, the aim is to establish the age range when most children can be expected first to show the new ability, and by means of these norms we can then check on the progress of any one individual child.
- How. These are questions not about the timing but about the manner of children's behaviour. How do preschool children form themselves into groups

 in intimate twos and threes or in much larger numbers? Always among the same friends or indiscriminately? In same-sex or in mixed-sex groups? Or, to take another example, how do children draw the human figure? In what way do they progress from scribbles to representation? Are 'tadpole figures' an inevitable part of this progression? How do they spatially organize the figure? And one more example, how do children judge various kinds of misdeeds? Do they have just some sort of partially developed moral sense, and if so,

what kind? Can they make subtle distinctions according to the nature of the misdeed and its consequences? Do they take the wrongdoer's intentions into account? With respect to all three of our examples, we require descriptive information about how children, of particular ages and in particular circumstances, go about the business of tackling everyday life, and how that changes as they grow older.

• *Why.* Giving an account of children's behaviour is, of course, not only a matter of systematic *description*; it also involves *explanation*. Why do some children develop at a slower rate than others? Why is it that certain children show highly developed abilities in one specific area yet not in other areas? Why are boys physically more aggressive than girls? Why do some children become antisocial? Why is parental punitiveness linked with child aggressiveness? Why ...? It seems almost as though these sorts of questions can go on indefinitely – partly because every aspect of children's development requires an explanation, but partly also because, admittedly, we are not anywhere near as far advanced with explanation as we are with description. The latter is, after all, a lot easier than the former; our knowledge of the timing and manner of children's behaviour is consequently rather more advanced than our ability to understand its causation.

In theory, questions can be asked about all aspects of child development. In practice, at any given time psychologists tend to pursue only a fairly limited number of problems. There are two main reasons for this. For one thing, there is pressure from society to provide answers to certain kinds of questions that happen to be important just then. The sharp increase of divorce over the last few decades, for instance, has highlighted the need to study the consequences which this experience has for children. Can one expect emotional disturbance, at least in the short term? Are there repercussions for learning and classroom behaviour? Might longterm consequences occur which manifest themselves in adulthood, such as in the individual's own marital history? Thus there are practical considerations, stemming from the concerns of parents and professional workers as well as from politicians and administrators, which determine the direction of research and prompt psychologists to undertake particular kinds of investigations. In the second place, psychologists also choose to study certain problems because they have become theoretically meaningful at the time. Knowledge, that is, has advanced to a particular point; its progress hitherto suggests certain new directions; and because it is natural to want to extend knowledge for its own sake, additional studies are undertaken in order to push the frontiers out still further. A study, for example, that has found shyness to be a stable and well-established trait by mid-childhood is likely to give rise to all sorts of further questions. How early in life can signs of shyness be detected? Is this already a stable trait in infancy? Do genetic factors play a part in its origins? Are extreme manifestations early on indicative of later pathology? Research, that is, has an impetus of its own and the pursuit of knowledge is undertaken as a venture in its own right.

There are, however, limits to the questions that psychologists are able to tackle. For one thing, some questions demand value judgements rather than research data. Should parents have the right physically to punish their children? Research can provide answers regarding the effects of physical punishment on children; what it cannot do is decide what the rights of parents should be or, for that matter, what rights children should have. These are issues for society to resolve. Another limitation lies in the availability of adequate methodological tools, for there are some aspects of human behaviour which, as yet, are too subtle for proper description, let alone measurement. Advances in knowledge depend, at least in part, on the development of assessment techniques; thus, the concentration on intellectual development in the early stages of child psychology reflected largely the wide-spread use of cognitive tests: social and emotional characteristics were relatively neglected because they seemed just too slippery for objective study. Not till recently, with the greater availability of the relevant tools, have these aspects begun to receive the amounts of attention that they too deserve.

Methods

Psychologists obtain their findings from three main sources: observing, asking and experimenting.

- *Observation* may seem an easy technique to apply; in fact, its skilled use requires a great deal of practice and much planning. Decisions have to be made about what, whom, when and where to observe, and about which of a number of different observational techniques to employ. Observations can be of a participant or a non-participant nature; take the form of a continuous narrative or be confined to only certain episodes; involve time sampling or event sampling; focus on a range of different categories of behaviour or just on one; and be based on a single individual at a time or on the interactive behaviour of a number of individuals. As it is by no means easy for any human being to be completely objective in recording the behaviour of another human being, reliability checks must be carried out, usually based on the agreement of several observers (for further details about this and the other data-gathering techniques mentioned below, see S. A. Miller, 1998).
- Asking involves two main approaches: interviews and questionnaires. Their use with young children is obviously limited, and yet, when questions are embedded in natural conversations about meaningful topics, some most useful information can be elicited even from preschool children (e.g. Bartsch & Wellman, 1995; Dunn & Hughes, 1998). When applied to older children or to their parents and teachers, both interviews and questionnaires can take a great many forms: structured and unstructured, formal and informal, predetermined and open-ended. The choice among these will largely depend on the purpose to which they are to be put, for the precise form of questions

and the conditions under which they are administered is likely to have considerable implications for the information obtained.

Experimenting, when applied to children, may conjure up ideas of something nasty and undesirable; in fact, it merely refers to procedures whereby the situation in which a child is placed is controlled and standardized as precisely as possible. In this way one can, first of all, ensure that the conditions are the same for all children included in the study, and, secondly, deliberately vary some of these conditions in order to see how children's behaviour changes. It will then become possible to test some particular hypothesis and obtain answers to specific questions. Let us take an example: can children working jointly in a group learn to solve problems more readily than when working alone? To obtain credible evidence one needs to assign children of a given age randomly to two conditions, one in which they work with a stated number of other children and one in which they work on their own, the two sets of children being comparable in all respects that might conceivably influence the outcome, such as intelligence and educational achievement. A particular task needs to be chosen for the children to work on, and a pretest administered to demonstrate that the task is initially beyond each child's capability. The two sets of children will then be asked to attempt to solve the problem under conditions that are identical in all respects other than in the number of children working on the task, after which a post-test (or a series of post-tests over a period of time) will be administered. One can then determine, first, what progress has been made by the children in comparison with their pre-test performance, and, secondly, whether the children working jointly with others showed greater advances than the children working on their own. The advantage of collaborative over individual learning (at least as found under the conditions employed by this particular experiment) can thus be ascertained, and, having obtained the findings under strictly controlled circumstances, one can be reasonably certain that any difference found in performance is indeed caused by the variation in number of children. Experimental methods thus make it possible to arrive at cause-and-effect conclusions - something that is only rarely possible with other methods.

Cross-sectional and longitudinal approaches

Our questions about children may involve just one specific age group: for instance, are 3-year-olds capable of experiencing shame? Or, can 8-year-olds understand abstract scientific principles? Alternatively, our interest may lie in developmental change: how do children's reactions to separation from their family change with age? Do 10-year-olds have a more sophisticated self-concept than 6-year-olds? Questions about change involve a tracing over age of some particular psychological function, enabling one to follow up that function from its beginnings to maturity and right through to decline and so determine whether, for example, the function changes

its overt manifestation as the child grows older, whether its developmental course is affected by the same influences at all ages or not, whether groups differing in specified ways such as gender resemble each other in their developmental characteristics, and so forth. Comparison of different age groups is thus required.

There are two ways in which such comparison can be carried out: by adopting either **cross-sectional** or **longitudinal research designs**.

• *Cross-sectional* designs entail the study of different groups of children of varying age, but all assessed under the same conditions and with the same techniques. Such research has the practical advantage of being relatively quick, for the various age groups can all be investigated within the same time period. However, it has the disadvantage that one cannot be wholly certain that the groups differ in age alone, for however hard one tries to keep other possible influences such as social class, intelligence and health the same, there may still be various uncontrolled factors of personality and background that could be responsible for the results obtained.

• In *longitudinal* designs the *same* children are followed up and studied at all ages. Thus one can eliminate variation due to children's individuality and be reasonably certain that differences between age groups are indeed due to age. The disadvantage is, however, that such studies take a long time: they require that the investigation takes as long as the age range examined, and loss of participants during this time then becomes a real possibility.

There is no doubt that longitudinal research is preferable if one is to make statements about developmental change. Unfortunately, because of their duration, follow-up studies are expensive and are therefore much rarer than cross-sectional studies. Most of what we know about change over age is therefore derived from the latter type of research and thus needs to be treated with some degree of caution until replicated by longitudinal studies.

Why Do We Need Child Psychology?

Turning to the second question that we raised at the beginning, let us confront the frequently heard criticism that we already know about children and how to raise them without all this scientific hullabaloo, that such knowledge existed long before psychology ever came into being and that it is indeed an ingrained part of humanity, without which the survival of our species would hardly be possible. Child psychology, it is sometimes asserted, is just a lot of long words for something that everybody already knows and, when the need arises, is able to put into practice.

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Cross-sectional research designs. Different groups of children varying in age are compared on some specific measure in order to assess how particular functions

particular functions change in the course of development.

Longitudinal research

designs. The same group of children is followed up and tested at different ages in order to trace change in the course of development.

But let us take the sort of assertions that are commonly made about children and their upbringing:

'Only children are lonely children.'

'Girls are more sensitive than boys.'

'Too much television viewing retards intellectual development.'

'Single-parent families are responsible for juvenile delinquency.'

'Men are naturally less proficient as parents than women.'

'Children of working mothers are at risk for maladjustment.'

There are many who regard generalizations such as these as common sense – so obvious that they do not need to be defended, let alone verified. But one can also argue that what is labelled as common sense is not always a reliable guide and can sometimes turn out to be a shaky foundation for conclusions about human behaviour, and that accordingly more systematic evidence is required. Let us therefore distinguish between two ways of obtaining answers to our questions about children: the subjective and the objective way.

Answering questions: The subjective way

In everyday life, confronted by individual children and their immediate needs and requirements, we inevitably rely to a large extent on our own personal feelings as to what is the 'right' course to adopt. These feelings have various sources:

- The most common are simply *hunches*: knowing how to comfort a crying child, how to stimulate a bored one, how to curb an aggressive one. These hunches can be excellent guides to personal behaviour; they represent intuitive knowledge that helps a great many people successfully to rear their offspring without ever opening a book on the subject. And yet, even at this level, there is much uncertainty, as seen in the sometimes puzzled, sometimes desperate letters which parents send to women's magazines, or in the advice columns written in response by 'experts'; or in the popularity of television programmes aimed at all those responsible for children's care and education and intended to provide insight into everyday child phenomena; or in the moves by governments to create establishments such as parenting institutes, designed to support and improve practices that may seem natural but that nevertheless appear to bewilder a great many people. What is more, these unanalysed hunches can sometimes stem from deep-seated prejudices and preconceptions: arguments about the ability of gay or lesbian couples successfully to rear children can have more to do with personal hang-ups about sex than with any knowledge about the effects that such upbringing has on children.
- Another source lies in people's *personal experience*, particularly of events in their own childhood. Such experience is bound to influence one's judgement,

whether in a positive way by wanting the next generation to have the same benefits or, quite on the contrary, by doing one's best to protect children from what one went through oneself. But however natural such a tendency may be, it is not always a reliable guide for making decisions either about individual children or about children in general. For one thing, memories of one's own past often give rise to highly emotionally charged feelings that can readily distort judgement; and for another, the single case (oneself) that the judgement is based on may well be quite atypical and therefore inappropriate in dealing with other cases. 'It never did me any harm' as an answer to the problem of using physical punishment is certainly inadequate as a guide for policy decisions about children generally; it is also of little relevance to determining how to discipline any other particular child – even one's own. We may never be able entirely to escape our own childhood, but we cannot automatically generalize from that to the childhood of others.

The third source is of a somewhat different order, for it refers to experts' advice and is thus rather more explicit and articulate than the other two sources. Let us take the best known of all the childrearing experts, Benjamin Spock, whose book Baby and Child Care (1948) played such an enormous part in determining how parents brought up their children in the 1950s and 1960s. There is no doubt that much of the advice Spock had to offer was shrewd and helpful, and that a great many parents found him a considerable source of comfort. And yet, if one closely examines Spock's writings in order to determine what that advice is based on, it soon becomes apparent that most of his pronouncements had no firmer base than a mixture of personal opinion, guesswork, folklore and experience with clinical, and therefore atypical, cases. The same applies to many other so-called experts, and under the circumstances it is no wonder that fluctuations and abrupt changes occur periodically in what these individuals regard as acceptable in the upbringing of children. In the 1930s, for instance, the emphasis was very much on strictness, largely due to the influence of Truby King (1924), a paediatrician who advised mothers to feed by the clock, start toilet training early and not respond to a baby's cries for attention. In the 1950s the pendulum swung to the opposite extreme as a result of Spock's emphasis on permissiveness; yet this too eventually changed when Spock, blamed by a later generation as directly responsible for the student troubles and other manifestations of youth unrest of the 1960s, retreated from his previous position. The eminence and considerable clinical experience of people such as Spock and Truby King no doubt played a large part in persuading parents to adopt their advice as the 'right' course: their wisdom was taken for granted and they were accordingly treated as authority figures. Only when one is prepared to examine the source of their assertions more closely does it become apparent that their advice is also often based on purely subjective considerations. As to conclusions based on clinical experience, these certainly have their uses: they may draw attention to particular phenomena that are clearly of importance in children's lives,

and they may lead to hypotheses about the causation of various kinds of child behaviour that require investigation. However, for one thing, children requiring clinicians' help cannot be regarded as representative of children generally; for another, findings obtained in a clinical context can rarely be collected in any systematic, standardized way; and in addition there is usually no possibility of comparing the data so collected with those from non-clinical cases. Conclusions arrived at in the course of clinical work may be the first step in leading to significant insights, but on their own they do not constitute evidence. A surer guide is required than hypotheses and general impressions (for a detailed example of the contentious nature of experts' advice, see box 1.1).

Answering questions: The objective way

The aim of child psychology is to apply scientific methods to the investigation of human development. In this way an attempt is made to answer questions about children's behaviour and the way it changes over age in as systematic a manner as possible, and to minimize the influence of subjective factors such as opinion, guesswork and armchair theorizing. To this end, various safeguards are built into the research procedures employed – safeguards such as spelling out in detail all aspects of the methods used in obtaining the findings, making these aspects public and thus open to other people's scrutiny, subjecting results to statistical analysis to determine whether they are credible, and always insisting on replication by other investigators instead of merely relying on the conclusions of any one study. It is the application of means such as these that justifies the distinction between objective and subjective approaches.

To illustrate the way the distinction works in practice, let us consider the consequences for young children of having a working mother. This is not only an issue where a large number of individuals want information to help them make personal choices, but also one where governments and other policy-making organizations require guidance on such matters as the drafting of employment legislation and the provision of nursery facilities. How do psychologists set about the task of determining the effects on children of such an experience, and how does their approach differ from the more subjective approaches?

Psychological research, if it is to arrive at valid conclusions, must follow certain procedures. Among the more important of these are:

• *Precise description of the sample investigated*, so that one knows to what sort of children and their families the results can be applied. The meaning of maternal employment may be very different among poor families, where economic needs are paramount and where child care during the mother's absence from home is difficult to arrange, compared with well-off families, where the mother goes out to work primarily because of career aspirations and where professional carers can be engaged to look after the child in her absence. Findings from one

BOX 1.1

How much television should children watch?

In the course of 1999 the American Academy of Pediatrics, which has 55,000 members and is the main representative organization for paediatricians in the United States, issued a report on the impact of television on children. This report concluded with the following guidelines:

- 1 Children under 2 years should not be allowed to watch any television at all. Instead, their parents should play with them, as a child of this age has a critical need for social interaction which, if not fulfilled, will stunt healthy brain growth and thus impede the growth of intelligence.
- 2 Children over 2 years should be strictly limited to a maximum of 2 hours per day, regulated with a timer. No TV screens of any sort should be allowed in children's bedrooms, which (according to a spokesperson) 'should be a sanctuary, a place where kids can reflect on what happened that day'.

The report, not surprisingly, received considerable publicity in the media and a great deal of comment. Yet in no case were questions asked about the nature of the evidence on which the conclusions were based; its credibility, its replicability and the extent to which statements about such matters as stunted brain growth could actually be borne out by facts were not challenged. Instead, there was a general assumption that if such authority figures as the members of the American Academy of Pediatrics issued pronouncements of this nature, they must be taken seriously. How they came to reach their conclusions appeared to be irrelevant; the possibility that personal factors led to bias and misinterpretation of whatever data the paediatricians examined was not considered.

Equally significant was the popular reaction to the report, illustrated by two letters published in the London *Times* (10 August 1999). In one of these, the writer thoroughly approves of the recommendations because 'all our instincts' told her husband and herself that this was the proper way of bringing up her children. In the other letter a mother, on the contrary, pours scorn on the report because she found, by 'exercising my own common sense', that encouraging her child even before the age of 2 to watch television helped rather than hindered development. Each of these mothers was clearly convinced that her way of doing things was the 'right' way because her gut feelings told her so. Yet they reached diametrically opposed conclusions: common sense, it appears, is not all that common.

Parents will, of course, always follow their own feelings about such matters as television viewing. However, they do look for guidelines from people assumed to be experts, and it therefore behaves these experts to base their advice on proper evidence, just as it is essential for the media and all potential consumers of the advice to ask the all-important question, 'How do they know?'

of these groups may not apply to the other, and though ideally samples in research should be representative of all individuals affected and therefore involve large numbers, practical difficulties usually dictate the need to confine investigations to certain specific and relatively small groups. Specification of the characteristics of the group is therefore essential, so that one can determine how widely the findings from a particular study can be applied and what may account for any differences when compared with findings from other studies. Subjective approaches rarely take into account the specific characteristics of the individuals on whom their conclusions are based but tend to assume that one can simply generalize from one group to another.

- Assessment that is based on valid and reliable methods. Validity refers to the extent to which an assessment technique really does measure the characteristic it claims to measure; reliability is the consistency with which the same results are obtained by that technique on different occasions or as administered by different individuals. Thus, any conclusions about the effects of maternal employment on, say, children's emotional adjustment should be based on measures in which one can have faith: they must go beyond the vague impressions we tend to rely on in everyday life and which so often form the basis of conclusions arrived at by more subjective approaches.
- *Precise description of all aspects of methodology.* Whatever findings one obtains from research are influenced by the methods used to acquire them. Different methods do not necessarily yield identical results: a child's emotional adjustment can be assessed by interviewing the mother, interviewing the child's carer, administering questionnaires to either of these individuals, or by

direct observation carried out by a research worker. Which is chosen will contribute to some extent to the results obtained; it is therefore essential to be explicit about the particular methods used. Inability to spell out how conclusions are arrived at is one of the main problems about the use of hunches: it means that two individuals who have reached diametrically opposed conclusions cannot resolve their differences by inspecting the means whereby they have got to those positions and may thus be left with nothing but dogmatic assertion.

• *The use of control groups.* To find, say, that a certain percentage of children of employed mothers are emotionally maladjusted is, by itself, of little use. One needs also to determine the incidence of maladjustment among children of non-employed mothers and thus establish a baseline. However, such a control group is only of use if it is precisely matched to the maternal employment group on all other characteristics that might possibly influence the results obtained, such as the child's age, sex and social class, the family's structure and relationships, various pre-existing personality features, and so on. Only then will the comparison yield meaningful results that can be correctly interpreted.

Validity. The extent to which a particular measuring instrument really reflects what it purports to measure. Usually assessed by comparing the result with other indices.

Reliability. Refers to the confidence we can have in a measuring instrument. Usually assessed by comparing results obtained at different times or from different testers.

• *Precautions taken against bias.* If, say, children of employed mothers are compared with children of non-employed mothers by means of observation, those collecting the data should be blind as to which group each of the children they are observing belongs to; if possible, they should also not know about any hypotheses and expectations guiding the investigation. There are many ways in which precaution can be taken against personal influence in psychological research; awareness of the role of such influences is perhaps the most important way in which subjective and objective approaches differ.

Applying procedures such as these justifies psychological research as a distinctive way of finding out about children. But let us now confess that the difference between subjective and objective approaches is not as absolute as we have so far pretended for the sake of exposition. However great the effort, it can be extremely difficult to eliminate all subjective influences on research, and especially so because such influences can operate at an unconscious level. Take as an example the effects of parental divorce on children. The early work on this topic was carried out at a time when there was still widespread social disapproval of divorce, and as a result it was inconceivable that such an experience could have anything but harmful consequences for children. Given such a climate, it is perhaps not surprising that research workers quite automatically looked for nothing but pathology in the children they investigated and that their inventories and questionnaires contained only items referring to symptoms such as anxiety, aggression and regressive behaviour. The possibility that there might actually be positive consequences was not considered. Only now, when divorce has become so much more common and socially acceptable, are investigators willing to concede that, whatever undesirable effects there may be, positive effects (freedom from tension, greater independence, increased tolerance of stress, etc.) might perhaps also be found in children and should therefore be included as items in questionnaires. Value judgements, which we make without even being aware of them, can thus affect such an apparently straightforward task as the design of assessment tools and thereby produce distortions in the findings obtained.

One other note of caution: quite apart from the possible influence of subjective factors, not all research is good research. Just because something appears in print does not mean that one has to believe it: this would be just another version of a naive faith in experts, with researchers assuming the position of authority figures merely because they are researchers. Questions need to be asked about the way the study was carried out. Was the sample such that one can generalize the findings to other individuals? Were the procedures appropriate and reliable? Were controls imposed so that one can rule out other interpretations? Most important of all, have the findings been replicated by other studies? Ideally, however foolproof a study may seem, there must always be some hesitation in accepting its findings until they have been confirmed by other studies: advances in knowledge and any social action that may result therefrom require a more solid data base than a single, unconfirmed study.

Thus the research foundation on which child psychology is based is by no means as firm as ideally one would like it to be: not every study is perfectly designed and executed, and, despite the safeguards normally put in place, value judgements and personal expectations do sometimes creep in and affect the outcome. Subjective and objective approaches, we have to conclude, are not wholly distinct; rather, they differ in degree. Nevertheless, the advantage of the latter over the former is that in research there is at least an awareness of the dangers of unchecked assumptions, and a recognition that all possible attempts should be made to guard against them if dependable knowledge and action are to follow.

The role of theory

In everyday talk the word 'theory' tends to be used contemptuously: 'it's just theory', for instance, means it is merely guesswork and therefore to be dismissed. In science, however, theories are much more: they are used to make sense of isolated facts by relating them to more general principles; they order whatever information has already been obtained, and they guide the search for further information by generating new questions to be answered. They are thus an essential part of the scientific enterprise.

Research in child psychology has been greatly influenced by a number of theories: psychoanalysis, behaviourism, social learning theory, Piagetian theory, ethology. We shall refer to these in due course; more detailed accounts can be found elsewhere (e.g. Crain, 1999; P. H. Miller, 2002). Here let us make just two points. In the first place, theories vary greatly in what they cover: the aim of behaviourism, for instance, was to make sense of all aspects of overt behaviour, human and animal; Piaget, on the other hand, concerned himself only with the development of children's cognitive functions; whereas Freud's focus was primarily the emotional life of adults and its origins in the early years. For that matter, there are many minitheories that are applied to just a limited set of phenomena such as the formation of children's peer groups or the acquisition of object names. It follows that theories are not necessarily contradictory: one does not have to align oneself with psychoanalysis *or* with Piaget, for the two dealt with different sets of psychological functions – both formulations can be recognized as useful and accepted simultaneously.

Our second point is to stress that a theory should be thought of as just a tool – a tool, that is, to enable one to think about the known and dig out the unknown. And, like all tools, theories have limited use, to be discarded when found wanting. Certain parts of psychoanalytic theory, for example, are no longer regarded as useful, either because they rely on concepts that are too vague and untestable (such as libido or death wish) or because they have been put to empirical test but not been confirmed (such as the theory of infantile trauma as a cause of all later psychological disturbance). When that happens, the theory needs to be replaced by something better – a new tool that will provide new insights and point in new directions, until it too gives way to something preferable.

Summary

Child psychology is not just a lot of factual information; it is also a particular way of obtaining such information. One cannot make proper use of the former without understanding the latter, and we therefore began by looking at the ways in which psychologists go about the task of finding answers to questions about children and their development.

The kind of questions psychologists ask about children are basically no different from those asked by others. They are about *when*, *how* and *why*, dealing respectively with matters of timing, manner and causation. Asking *when* and *how* questions involves the description of children's behaviour; *why* questions involves explanation of that behaviour.

Various methods are used to obtain the data required to answer these questions, but for the most part they fall into three categories: observing, asking and experimenting. Some of the questions we ask refer to children of just one particular age group, while others are about change from one age to another. To answer those about change, one can use either *cross-sectional* or *longitudinal* methods; the latter are preferable but practically more problematic.

In response to the charge that child psychology is not really needed because we know intuitively how to care for and rear children, we have contrasted two ways of obtaining such knowledge: *subjective* and *objective* approaches. The former rely on hunch, personal experience and the advice of 'experts'; while these have their uses, they are of limited help in providing reliable guidelines. The latter involve scientific research, the main advantages of which are that it is explicit, open to scrutiny and guards against subjective influences like personal bias and value judgements. The two kinds are not wholly distinct: research too can be affected by subjective factors, though it does attempt to place checks against them.

The formulation of *theories* is an essential part of any scientific enterprise. Their role is to organize factual information already obtained and to direct the search for new information. Theories are, however, only tools, to be discarded when no longer useful.

FURTHER READING

- Miller, P. H. (2002). *Theories of Developmental Psychology* (4th edn). New York: W. H. Freeman. A comprehensive account of the various theories that have been put forward to explain children's psychological development. Includes a useful discussion of what is meant by a theory, what theories are for, and what the main issues are confronting developmental psychology.
- Miller, S. A. (1998). *Developmental Research Methods* (2nd edn). Englewood Cliffs, NJ: Prentice-Hall. For the reader who wants a detailed, up-to-date account of all aspects of research into child psychology, including such topics as the design of studies, statistical analysis and ethical considerations.
- **Pettigrew, T. F.** (1996). *How To Think Like A Social Scientist*. New York: HarperCollins. An excellent, well-written introduction to how social scientists (including child psychologists!)

go about their task. Contrasts the distinctive way social scientists think about problems requiring solutions with popular analyses as reflected in the media.

Robson, C. (2002). *Real World Research.* Oxford: Blackwell. Not specifically about child psychology topics, but useful in providing insight into the nature of research when applied to aspects of real-world social problems.