



## The Nature of Adolescent Judgment

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## Preface

Making judgments is a dominant feature of adolescent intellectual life. The substantive part of the book is concerned with the elaboration of a theory about the psychological nature and development of judgment and with attempts to materialise this theory by devising measures to investigate the conditions under which adolescents make judgments.

In Chapter 1, I give my views on the importance of adolescent understanding and judgment, and in Chapter 2, I outline a scheme for categorising and analysing judgments and describe material which seems capable of assessing them within this scheme. I am sure such material can be further refined and improved.

Next, by using the measuring instrument, I study the factors entering into judgment. Most important are those stemming from the judger himself—his age, ability, background, language and interests—then there is the influence of the material used, whether it is educational or social, how far it is informative, and what form the questions take. In Chapter 4, I break down the complete act of making a judgment into noticeable features: the arousal of interest and imagining, formulating and selecting of explanations, and the importance of deductive processes. This analysis is supported by reference to several experimental investigations.

Many problems in our material and social environment involve

the reconciliation of opposing forms and interests in states of more or less stable equilibrium. In Chapter 5, on the fundamental importance of insight into the conditions of stability and change, I raise problems which I think will be capable of empirical investigation in the future.

The possibility of promoting mature judgment by tuition is one which must be faced by the educationalist. Chapter 6 describes experiments designed to discover how far such promotion is possible.

Concepts are the coinage of explanation and although this is assumed in the main body of the text, I thought it necessary to add a peripheral chapter on concept formation during adolescence. It is not exhaustive, but touches on important features, some of which need further investigation.

Readers experienced in problems of thinking will see that the logical, linguistic and semantic elements of judgment may have to be teased out more thoroughly, although the research described in the last section of Chapter 3 provides a starting off point.

Lastly, I comment on the adolescent intellect. Given the present modes of secondary and high school education with substantial dependence of the many of the intellectual authority of the one, then apparently we cannot expect the extensive emergence of mature judgment until mid and late adolescence. The great unponderable is whether greater opportunity for early adolescent to discuss and evaluate problems with his peers and teachers could lead to an earlier development of intellectual maturity.

## CHAPTER ONE

## Intellectual Development During Adolescence

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- i Adolescent and young adult thinking
- ii The context of the present study
- iii The scheme of analysis
- iv Understanding
- v Judging
- vi What a study of adolescent judgment involves
  - a Empirical instances
  - b Interpretation of results

### i ADOLESCENT AND YOUNG ADULT THINKING

I begin with an assertion. Above all else the adolescent and young adult apprehend the inconsistencies between the actual and the possible. They are impelled to the opinion and action which characterizes their lives by a drive to reconcile this actuality of their existence with the possibilities they themselves envisage. Usually they strive to modify the actual. This going forward and outward to conceive of possibilities beyond the limits of their environment is the central feature of their intellectual life.

Such forward and outward directed thought is part of growing up to take on adult life and the irreconcilability of some of the

actual and the possible leads to the conflict which is so often a feature of the relations between the new generation and the old.

This overall view of adolescent thinking is not novel, for several like it are implied in the writings of educationalists and government committees on secondary and high school education. The conception was first clearly stated in Chapter 18 of Inhelder and Piaget (1958) as a final general speculation on the growth of thinking where they examined it briefly in relation to their theory of cognitive growth.

What has been lacking however is empirical study of the functioning and growth of this feature of adolescent thought. My purpose therefore is to examine more fully the intellectual processes in this capacity to evoke possibilities and set them alongside actualities.

Some comment on the problem of adolescent thinking has already been made (Peel, June 1965) and ideas introduced about the act of explaining and ways of investigating it (Peel, Chapter 10, in Lunzer and Morris, 1968). The present monograph extends the theoretical and practical examination of the nature of adolescent judging by introducing fresh results, particularly on the conditions making for the emergence of more mature judgment.

## ii THE CONTEXT OF THE PRESENT STUDY

So far as I know the techniques to be described have not been tried before and some of the thinking about the problem of adolescent judgment will also be new, but at a fundamental level this study derives most from the work of Inhelder and Piaget on the growth of logical thinking, particularly that in the older children they studied. Whereas, however, they used practical science situations, here we shall construct *verbal* situations for testing out the maturity of judgment.

The subsequent analysis of the complete act of judgment will be seen to be cognate with the investigations of Duncker on problem solving and more recently with the ideas of Guilford (1956) on divergent and evaluative thinking. More marginally the study may complement, in its different topics, the work of Suchman on inquiry training, Crutchfield on generalized problem solving skills, Ausubel on higher-level learning, Bruner on thinking and educative processes and Berlyne on idea-curiosity. It has also some contact with various views on concept formation and the diffuse boundary between thought and language.



## iii THE SCHEME OF ANALYSIS

The assertion that a growing awareness of possibilities marks the intellectual growth of the adolescent needs elaboration if it is to serve either as a psychological theory or for purpose of empirical testing.

By possibilities I mean ideas, theories, hypotheses, opinions, values, concepts, causes and analogies and comparisons with previous experiences. The actualities which may have to be resolved in terms of these possibilities are here-and-now events and phenomena experienced by the individual. As an *intellectual* exercise, the reconciliation of the possible and actual may therefore take more than one form.

First we may have *understanding* of the here-and-now by which we refer it to our prior and independent experiences. Understanding may reveal itself at different levels (see next Section) and it is communicated to others by the act of explaining. So a pupil understands a chemical reaction if he can relate the happenings in the test-tube to his knowledge of chemical theory. He understands the progress of the American War of Independence when he can relate its outcome to its causal factors. Other situations calling for the intellectual resolution of possibilities and actualities are more open in that several explanations may be possible. Here the *thinker* may have to select, by a process of *judgment*. The study of history, geography, literature, ecology and human affairs abounds with such problems. As in the case of understanding we are able to assess a person's judgments by his explanations of them. Explanation then constitutes an operational act by which understanding and judging can be assessed. What is non-explanation? Casual observations of individuals in thinking and learning situations show that it is not just nothing at all, but rather mere description of the event. When a thinker has no preconceived ideas or opinions available he cannot progress beyond straight description.

By description I mean the account of the features of an event or phenomenon without reference to previous ideas or causes. So a pupil might describe the movement of liquids we call convection without being able to explain it. In other test situations we shall see (Chapter 2) that describer-thinking may be revealed in content dominated and circumstantial responses. In between there may be varying degrees of partial explanation and it is helpful to think of

the measure of understanding as a scale with merest description at one extreme and fullest explanation at the other.

The main task in this monograph then is to investigate the understanding and judgment of adolescents by calling for explanations which may be set on a description-explanation scale. We want to find out when and under what conditions adequate explanations are forthcoming during adolescence and early adulthood.

Linked with this objective will be an account of the complete act of judgment, supported by experimental material showing how it appears during adolescence. Then we consider attempts to promote understanding and judgment by instructional methods.

Mature judgment about problems concerning our environment, whether in the material, biological or social sense, nearly always involve a grasp of certain fundamental concepts of stability and change. Thus if we put a question about plant ecology or human relations, the answers have to show a sensitivity not only to the factors making for biological and social equilibria and change but also to the dynamics of their combination and co-ordination. Such concepts may be called *modal* since they determine a way of looking at the environment and form the basis on which the more *substantive* concepts of particular areas of knowledge are based. Awareness of the conditions of stability and change develops most strongly during adolescence. They merit therefore separate discussion in a study of adolescent thinking.

This text is not in the main concerned with the growth of concept formation but, since much of the act of judgment consists of referring the here-and-now to previously formed concepts, subordinate sections will be devoted to adolescent concept formation.

Summing up, our first purpose is to investigate adolescents' judgment by examining the quality of their explanations; then we consider factors entering into the judging situation. Next we examine components of the act of judging and the extent to which they appear in adolescence and finally we discuss the improvement of judgment by tuition. A discussion of concept formation is ancillary to these main aims.

#### iv UNDERSTANDING

Understanding is a much criticized but, in spite of that, often used word. As pointed out by Beberman (1964):