

The Psychology of the Child

Jean Piaget
and
Bärbel
Inhelder

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OF
THE CHILD



Jean Piaget

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PREFACE

IN THIS VOLUME we have tried to present, as briefly and as clearly as possible, a synthesis, or summing up, of our work in child psychology. A book such as this seemed to us particularly desirable since our published studies have been spread out over a number of volumes, some of them quite lengthy and some of them fairly difficult to read. This little book, of course, is not meant to be a substitute for reading the other volumes. But it represents, we believe, a useful introduction to the questions we have studied and will enable the reader to gain an adequate understanding of what we have learned in our investigations.

March 1969

Jean Piaget

Bärbel Inhelder

INTRODUCTION

The Psychology of the Child deals with mental growth or, what amounts to the same thing, the development of behavior patterns (including consciousness) up to adolescence, the transitional phase marking the entrance of the individual into adult society. Mental growth is inseparable from physical growth: the maturation of the nervous and endocrine systems, in particular, continues until the age of sixteen. This implies that in order to understand mental growth it is not enough to start with birth; there is an embryology of reflexes (E. Minkowski) dealing with the movements and responses of the fetus, and the preperceptive behavior of the fetus, for instance, is relevant to the study of the perception of tactilo-kinesthetic causality.¹ From a theoretical point of view, it also implies that child psychology must be regarded as the study of one aspect of embryogenesis, the embryogenesis of organic as well as mental growth, up to the beginning of the state of relative equilibrium which is the adult level.

Organically as well as mentally, however, environmental influences assume increasing importance after birth. Child

¹ See A. Michotte, *The Perception of Causality* (New York: Basic Books, 1963).

psychology, in its search for factors of development, cannot be limited to a study of biological maturation. Other, equally important factors are to be considered—exercise or acquired experience as well as social life in general.

Child psychology studies the mental development of the child for its own sake. In this respect it must be distinguished from “genetic psychology,” although it constitutes the essential tool of this discipline. To dispel any ambiguity about terminology, let us note first that the word “genetic,” as used in the expression “genetic psychology,” was introduced by psychologists in the second half of the nineteenth century to refer to the developmental aspects of psychology. Later, biologists began to use the term “genetics” in a more restricted sense. In the current language of biologists, “genetics” refers only to the mechanisms of heredity and does not include the study of embryogenetic or developmental processes. The term “genetic psychology,” however, continues to refer to individual development (ontogenesis).

As a result, one might be tempted to consider the expressions “child psychology” and “genetic psychology” to be synonymous, but there is an important distinction between them: Whereas child psychology deals with the child for his own sake and does not consider his eventual development into an adult, we tend today to use the term “genetic psychology” to refer to the study of the developmental processes that underlie the mental functions studied in general psychology (intelligence, perceptions, etc.). Genetic psychology tries to explain mental functions by their mode of formation; that is, by their development in the child.

For example, the study of logical thinking, its operations

and structures, in the completed state found in the adult led some authors (German *Denkpsychologie*) to believe that thinking was a "mirror of logic." Psychologists eventually began to wonder whether logic was innate or resulted from a gradual development. To solve problems of this kind they turn their study to the child and in so doing promote "child psychology" to the rank of "genetic psychology": "genetic psychology" becomes an essential tool of explicative analysis to solve the problems of general psychology.

The genetic method has become important in all branches of psychology (consider, for example, the major role attributed to childhood by psychoanalysis) and thus gives child psychology a key position in many diverse fields of psychology. In this work, therefore, we will speak primarily from the point of view of genetic psychology. The child is of considerable interest in himself, but interest in psychological investigations of the child is increased when we realize that the child explains the man as well as and often better than the man explains the child. While the adult educates the child by means of multiple social transmissions, every adult, even if he is a creative genius, nevertheless began as a child, in prehistoric times as well as today.

CONTENTS

Preface v

Introduction vii

1 THE SENSORI-MOTOR LEVEL 3

- I. *Sensori-motor Intelligence* 4
 - 1. *Stimulus-Response and Assimilation*
 - 2. *Stage 1*
 - 3. *Stage 2*
 - 4. *Stage 3*
 - 5. *Stages 4 and 5*
 - 6. *Stage 6*
- II. *The Construction of Reality* 13
 - 1. *The Permanent Object*
 - 2. *Space and Time*
 - 3. *Causality*
- III. *The Cognitive Aspect of Sensori-motor Reactions* 19
- IV. *The Affective Aspect of Sensori-motor Reactions* 21
 - 1. *The Initial Adualism*
 - 2. *Intermediary Reactions*
 - 3. *"Object" Relations*

2	THE DEVELOPMENT OF PERCEPTION	28
I.	<i>Perceptual Constancies and Perceptual Causality</i>	29
	1. <i>Constancy of Form</i>	
	2. <i>Constancy of Size</i>	
	3. <i>The Permanent Object and Perception</i>	
	4. <i>Perceptual Causality</i>	
II.	<i>Field Effects</i>	35
III.	<i>The Perceptual Activities</i>	39
IV.	<i>Perceptions, Concepts, and Operations</i>	43
	1. <i>Methods</i>	
	2. <i>Projective Concepts and Perceptions</i>	
	3. <i>Perceptual Constancies and Operatory Conservations</i>	
	4. <i>Situation 4</i>	
	5. <i>Conclusion</i>	
3	THE SEMIOTIC OR SYMBOLIC FUNCTION	51
I.	<i>The Semiotic Function and Imitation</i>	52
	1. <i>The Appearance of the Semiotic Function</i>	
	2. <i>The Role of Imitation</i>	
	3. <i>Symbols and Signs</i>	
II.	<i>Symbolic Play</i>	57
III.	<i>Drawing</i>	63
IV.	<i>Mental Images</i>	68
	1. <i>The Problems Raised by the Image</i>	
	2. <i>Two Types of Images</i>	
	3. <i>Copy Images</i>	
	4. <i>Kinetic and Transformational Images</i>	
	5. <i>Images and Operations</i>	
V.	<i>Memory and the Structure of Image-Memories</i>	80
VI.	<i>Language</i>	84
	1. <i>Evolution</i>	
	2. <i>Language and Thought</i>	

3. *Language and Logic*
4. *Language and Operations*
5. *Conclusion*

4 THE "CONCRETE" OPERATIONS OF THOUGHT AND INTERPERSONAL RELATIONS 92

- I. *The Three Levels in the Transition
from Action to Operation* 93
- II. *The Genesis of the "Concrete" Operations* 96
 1. *Notions of Conservation*
 2. *The Concrete Operations*
 3. *Seriation*
 4. *Classification*
 5. *Number*
 6. *Space*
 7. *Time and Speed*
- III. *Representation of the Universe:
Causality and Chance* 109
- IV. *Social and Affective Interactions* 114
 1. *Evolution*
 2. *The Problem*
 3. *Socialization*
- V. *Moral Feelings and Judgments* 122
 1. *The Genesis of Duty*
 2. *Heteronomy*
 3. *Moral Realism*
 4. *Autonomy*
- VI. *Conclusion* 128

5 THE PREADOLESCENT AND THE PROPOSITIONAL OPERATIONS 130

- I. *Formal Thought and
the Combinatorial System* 132
 1. *The Combinatorial System*

	2. <i>Combinations of Objects</i>	
	3. <i>Propositional Combinations</i>	
II.	<i>The Two Reversibilities</i>	136
III.	<i>The Formal Operatory Schemes</i>	140
	1. <i>Proportions</i>	
	2. <i>Double Systems of Reference</i>	
	3. <i>Hydrostatic Equilibrium</i>	
	4. <i>Notions of Probability</i>	
IV.	<i>The Induction of Laws and the Dissociation of Factors</i>	145
	1. <i>Elasticity</i>	
	2. <i>The Pendulum</i>	
V.	<i>The Affective Transformations</i>	149

Conclusion:

FACTORS IN MENTAL DEVELOPMENT 152

Bibliography 161

Index 163

THE
PSYCHOLOGY
OF
THE CHILD





1

THE SENSORI-MOTOR LEVEL

IF THE CHILD partly explains the adult, it can also be said that each period of his development partly explains the periods that follow. This is particularly clear in the case of the period where language is still absent. We call it the “sensori-motor” period because the infant lacks the symbolic function; that is, he does not have representations by which he can evoke persons or objects in their absence. In spite of this lack, mental development during the first eighteen months¹ of life is particularly important, for it is during this time that the child constructs all the cognitive substructures that will serve as a point of departure for his later perceptive and intellectual development, as well as a certain number of elementary affective reactions that will partly determine his subsequent affectivity.

¹ Ages indicated in this book are always average and approximate.

I. *Sensori-motor Intelligence*

Whatever criteria for intelligence one adopts—purposeful groping (E. Claparède), sudden comprehension or insight (W. Köhler or K. Bühler), coordination of means and ends, etc.—everyone agrees in recognizing the existence of an intelligence before language. Essentially practical—that is, aimed at getting results rather than at stating truths—this intelligence nevertheless succeeds in eventually solving numerous problems of action (such as reaching distant or hidden objects) by constructing a complex system of action-schemes² and organizing reality in terms of spatio-temporal and causal structures. In the absence of language or symbolic function, however, these constructions are made with the sole support of perceptions and movements and thus by means of a sensori-motor coordination of actions, without the intervention of representation or thought.

1. *Stimulus-Response and Assimilation*

There certainly is such a thing as a sensori-motor intelligence, but it is very difficult to specify the exact moment when it appears. Actually, the question makes no sense, for the answer always depends upon an arbitrary choice of criterion. What one actually finds is a remarkably smooth succession of stages, each marking a new advance, until the moment when the acquired behavior presents charac-

² A scheme is the structure or organization of actions as they are transferred or generalized by repetition in similar or analogous circumstances.

teristics that one or another psychologist recognizes as those of "intelligence." (All writers are in agreement in attributing this quality to at least the last of these stages, from twelve to eighteen months.) There is a continuous progression from spontaneous movements and reflexes to acquired habits and from the latter to intelligence. The real problem is not to locate the first appearance of intelligence but rather to understand the mechanism of this progression.

For many psychologists this mechanism is one of association, a cumulative process by which conditionings are added to reflexes and many other acquisitions to the conditionings themselves. According to this view, every acquisition, from the simplest to the most complex, is regarded as a response to external stimuli, a response whose associative character expresses a complete control of development by external connections. One of us,³ on the other hand, has argued that this mechanism consists in *assimilation* (comparable to biological assimilation in the broad sense): meaning that reality data are treated or modified in such a way as to become incorporated into the structure of the subject. In other words, every newly established connection is integrated into an existing schematism. According to this view, the organizing activity of the subject must be considered just as important as the connections inherent in the external stimuli, for the subject becomes aware of these connections only to the degree that he can assimilate them by means of his existing structures. In other words, associationism conceives the relationship between stimulus and response in a unilateral manner: $S \rightarrow R$; whereas

³ Jean Piaget, *The Origins of Intelligence in Children* (New York: International Universities Press, 1951; London: Routledge and Kegan Paul, 1953).