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# Perception and the Evolution of Style

A new model of mind

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Jane Gear



Routledge  
London and New York

First published in 1989 by Routledge  
11 New Fetter Lane, London EC4P 4EE  
29 West 35th Street, New York, NY 10001

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Typeset in Great Britain by Photoprint, Torquay

Printed and bound in Great Britain by  
Biddles Ltd, Guildford and King's Lynn

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*British Library Cataloguing in Publication Data*

Gear, Jane

Perception and the evolution of style :  
a new model of mind.

I. Title

150

*Library of Congress Cataloging in Publication Data*

Gear, Jane

Perception and the evolution of style.  
Revision of author's doctoral thesis.

Bibliography: p.

Includes index. ✓

✓ 1. Perception. ✓ 2. Individual differences. I. Title.

BF311.G37 1989 150.19 88-32540

ISBN 0-415-02636-9

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# Perception and the Evolution of Style

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You had to be a crank to insist on being right. Being right was largely a matter of explanations. Intellectual man had become an explaining creature. Fathers to children, wives to husbands, lecturers to listeners, experts to laymen, colleagues to colleagues, doctors to patients, man to his own soul, explained. The roots of this, the causes of the other, the source of events, history, the structure, the reasons why. For the most part, in one ear out of the other. The soul wanted what it wanted. It had its own natural knowledge. It sat unhappily on superstructures of explanation, poor bird, not knowing which way to fly.

Saul Bellow, *Mr Sammler's Planet*

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# Foreword

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The celebrated Cambridge psychologist, Sir Frederic Bartlett, who was my teacher, used to say that the trouble about psychology is that neat results (such as Ebbinghouse's learning curves with nonsense syllables) are generally trivial and tell us very little, while interesting data are too complicated and uncontrolled to understand. Bartlett pointed out that this happens especially when *meaning* is involved – and indeed he is remembered for his concept of the especially human 'Effort-After-Meaning' which characterizes and also distorts our perceptions and memories.

In these, or any other terms, this book by Jane Gear is a brave start from a conceptual model – APM-A theory – in which perception, memory, attention, arousal, and thinking are interactively related, to produce ideas that are applied to many aspects of life. These include art and education.

Of art, Jane Gear says: 'Involvement in the arts offers opportunities for what might be called *chained symbolizing and hypothesizing* and the pains and delights of continuous sensory and emotional involvement in problem solving.' Of education she says: 'As it is, education for the majority might more accurately be described as an experience of incremental deficit in self-esteem. . . . Children are tested, sorted, and graded regardless of differences in *individual style* and consequent potential levels and kinds of *orientation need*.' Art is suggested as a way of gaining orientation and self-knowledge to face the world and other people, to find success and enjoyment.

This is a hedonistically-based account, in which life and learning should be for pleasure – when pleasure includes complex mixes of psychological pleasure *and* pain, such as those involved in caring and creating – with art and science representing two aspects of the personality, both serving discovery.

This is certainly not Ebbinghouse-like neat and tidy psychology without human meaning. The APM-A theory has its basis in the physiology of the autonomic nervous system, and relates what are now seen as principal psychological concepts and variables. So it covers virtually everything. Whether this ambitious and intelligent Effort-After-Meaning has the explanatory power of a 'hard' scientific theory may well depend, as the theory suggests, on the 'adaptive style' of the reader.

Richard L. Gregory  
February 1989

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# Acknowledgements

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*Perception and the Evolution of Style* was originally the title of a doctoral thesis whose sub-title was 'a unified view of human modes of learning and expression'. It was the result of research into what were originally the insights of an artist and educationist immersed in the psychology of learning and individual differences in particular, rather than those of a neuropsychologist, psychiatrist, psychoanalyst, criminologist, art historian, or professional psychologist with a world-wide knowledge of the application of psychology in the arts and education. Consequently, considerable reliance has been placed on the availability for interrogation and/or critical consideration of different parts of what follows by a number of persons who are professionally involved in these fields. I am, therefore, greatly indebted to Professor Richard Gregory, Director of the Brain and Perception Laboratory at Bristol University, for helpfulness beyond his generosity in writing the Foreword to this book; Dr Benjamin Beit-Hallahmi of the Department of Psychology, University of Haifa, Israel; Dr Nathan Adler of the California School of Professional Psychology, USA; Professor J. E. Thomas, Director of the Department of Adult Education, University of Nottingham; Professor John Wilton-Ely, former Professor of Art History, University of Hull; and Dr Premysl Maydl, Director of the European Centre for Leisure and Education, Prague, respectively.

I am also especially grateful to both Dr Frances Clegg, a clinical psychologist at the Institute of Psychiatry, London, and her husband Dr Brent Elliott, a psychologist as well as historian, for their very generous expenditure of time and effort in making critical appraisals of the original thesis. Similarly, I am particularly indebted to both Professor Jay Appleton and Professor Bernard Jennings, who originally agreed jointly to supervise a difficult interdisciplinary field. It must also be added that had I not found myself 'supervising' the experimental paintings of the author of *The Experience of Landscape* (Appleton 1975), and therefore privy to Prospect-Refuge Theory long before most of the rest of the world, the synthesis between my own knowledge and experience in art, psychology,

and education, which this book represents, would almost certainly not have taken place. In fact, the institution in which this initiation took place was itself one of the origins from which this work has sprung. It was one of a number of primary sources of awareness of some of the theoretical issues in question: specifically, consciousness of apparent stylistic differences in adult learning which appeared to relate to stylistic differences in creative output and other behaviours.

Neither would such a synthesis have taken place without the extremely stimulating material put before me by Dr Geoffrey Squires, who also supervised earlier research on which both the doctoral research and this book are based. More thanks of a special kind are appropriate to Margot Brown, who not only managed to remain apparently fascinated throughout the original research, but also identified numerous examples of literary evidence supporting the general theory. It is unfortunate that space has not permitted the exploration of the many learned suggestions which she made. I am also grateful to Dr Gwyn Harries-Jenkins for alerting me to Louis Zurcher's highly relevant notion of mutability of self-concept in *The Mutable Self* (1977).

Many other acknowledgements should be given of help given and gained in sometimes less formal, direct, or conscious ways. Of those to whom such thanks are due I can identify the direct, indirect, conscious, and not conscious help of a small, long-suffering, but extraordinarily tolerant family, and the help of several psychologists and one art historian in particular. These are Anne Barham, John Holt, Dr Geoffrey Lowe, Dr Alex McLaughlin, and Sarah Dodd, respectively. Having strayed so far from the mainstream, however, I must stress that the onus of responsibility for a text which deals with so many different levels and kinds of interaction as to make somewhat heavy demands on the reader is entirely my own.



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## Picture acknowledgements

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The author and publisher would like to thank the following for permission to reproduce illustrations in this book: Academy Editions, London: Studio Competition, Book Covers 1898 from *Art Nouveau* by A. Melvin (60); Georg Baselitz: 'Adieu', Tate Gallery, London (57); Stephen Cox: 'Gethsemane', Tate Gallery, London (58); Design and Artists Copyright Society: Joseph Beuys, 'Fat Battery', Tate Gallery, London (50), Salvador Dali, 'Autumnal Cannibalism', Tate Gallery, London (37), Juan Gris, 'Violin and Fruit Dish', Tate Gallery, London (41), Georg Grosz, 'Funeral Procession', Staatsgalerie, Stuttgart (36), Piet Mondrian, 'Composition with Red, Yellow and Blue', Tate Gallery, London (48), Pablo Picasso, 'Seated Nude', Tate Gallery, London (40); Ferens Art Gallery, Hull City Museums and Art Galleries, UK: 'Ulysses and the Sirens' (59), Bridget Riley, 'Arround' (62); Barry Flanagan: 'A Aaing Guiaa', Tate Gallery, London (52); Richard Long: 'A Line in Bolivia, Kicked Stones' (2nd version) Tate Gallery, London (63); Robert Longo: 'Sword of the Pig', Tate Gallery, London (49); Manchester City Art Gallery: William Holman Hunt, 'The Hireling Shepherd' (34); Marlborough Fine Art Ltd.: R. B. Kitaj, 'The Rise of Fascism', Tate Gallery, London (51); Metropolitan Museum of Art, New York: Francisco Goya 'Disasters of War' (44); Musée Gustave Moreau, Paris: 'Salome Dancing' (39); Musée D'Orsay, Paris: Puvis de Chavannes 'Poor Fisherman' (38); Museum of Modern Art, New York: Claes Oldenburg, 'Soft Drainpipe, Blue (Cool) Version' (53); The Nolde Foundation: Emil Nolde 'Candle Dancers' (32); Omar S. Pound: Wyndham Lewis, 'Composition', Tate Gallery, London (46); The Royal Collection: Frank Holl, 'No Tidings from the Sea', reproduced by gracious permission of Her Majesty the Queen (35); Stedelijk Museum, Amsterdam: Kasimir Malevich, 'Suprematist Painting, Yellow Rectangle' (47); Tate Gallery, London: Christopher Nevinston, 'The Arrival' (45), A. R. Penck, 'West' (33), Jackson Pollock 'Number 23' (43), James Abbott McNeill Whistler, 'Nocturne in Blue and Gold' (42); Victoria and Albert Museum, London: Oliver Bernard, Entrance to the Grand Palace Hotel (61).

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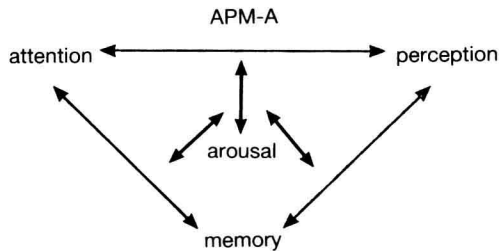
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# General introduction

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What follows could be said to be about many different things, for the simple reason that one of its central notions, the suggestion that, as a species, our most fundamental needs include the achievement of a number of different kinds of orientation, is seen to touch on all the things we think and do and, most importantly, the *ways* in which we think and do them. It is most obviously about what is seen to be a crucial relationship between thinking and emotion, and about how this relationship is likely to be at the root of human variability as well as human adaptability.

The book offers definitions and an explanation of differences in 'styles' of experience and behaviour and a new evolutionary perspective called APM-A theory because it is rooted in a particular view of the interaction of attention (A), perception (P), memory (M), and arousal (-A). Instead of a linear sequence such as attention → perception → thought → feeling → memory, the relationship between attention, perception, memory, and arousal is deemed to be variable. Change in one is seen to affect the others so that an interactive model is seen to be more appropriate.



It might be simpler to say that the book is about the effects of emotion and arousal on thinking (and, essentially, the scanning and focusing functions of attention, perception, and memory), were it not for the fact that it is also about the effects of thinking on emotion. In the most general terms, however, it represents an attempt to show how an evolutionary explanation of the relationships within APM-A can provide a large enough

canvas to begin to relate to one another (albeit at the most fundamental level) phenomena of individual, social, cultural, and artistic kinds in terms of man–environment interaction. The explanation rests on a concept of the species, and individuals, being ‘tuned’ to different levels and kinds of change: as being susceptible (and vulnerable) to different and changing patternings of autonomic nervous system activity which, in turn, affect our APM-A – that is, the ways in which we attend, perceive, remember, and become aroused. Other variables are seen to be the extents to which these processes are experienced predominantly consciously or not consciously; and whether thought is experienced as predominantly sequential or as more diffuse (both of which are seen to hold benefits *and* drawbacks); and how different levels *and* kinds of arousal affect our psychological as well as physical needs. Some idea of these variables may be gained by reference to Figures 3, 4, 5, and 12–17.

The chief aim is to offer a *unified context* within which better sense can be made of the very large number of different and apparently contradictory theories which attach to most aspects of experience and behaviour. In order to do this and provide a theory consistent with so many possible ways of experiencing and responding to the same event, it has been necessary to take account of highly interactive processes at both micro and macro levels. These range from (1) the interactive nature of attention, perception, memory, and arousal labelled APM-A, which, in turn, requires acknowledgement of (2) the interaction of conscious and unconscious processing of information – at micro level – to (3), the interaction of the internal state of the organism with changing environmental conditions and (4), interaction between individual learning and what is called species learning (longer-term, species adaptation) at macro level.

In addition to the need frequently to make qualifying statements, and acknowledge complexity, a prerequisite for taking into account so many levels of interaction has been the identification of concepts and language with sufficiently wide applicability to be able to cross conventionally useful, but sometimes ‘hardened’ disciplinary boundaries. One incidental effect of this is the need occasionally to use what might be considered by some to be ‘uncongenial language’. For instance, despite some effort to come up with a rather less sexually loaded phrase than the ‘*intercourse principle*’ to describe interactions promoted by arousal between people and objects, people and places, people and ideas, and people and other people *not* of a sexual nature, as well as interactions which may be, I failed. The phrase ‘interaction principle’ did not seem to convey quite the same potential level of engagement, while the repetition of ‘externalization of neuronal excitation resulting in a felt need to engage with a stimulus’ was certainly worth avoiding.

A particular problem of crossing arts/science boundaries is that modes



of expression of the people in different fields also differ. Therefore, depending on the cognitive style of the reader, the need in what follows sometimes to accept broader than usual applications of some terms and/or temporarily forsake an acquired technical usage could be found difficult. It may help to regard the exercise being undertaken as rather like shaking a kaleidoscope. In order to discover a new pattern of relationships between the same component colours and shapes, some disorganization of the existing pattern has to be tolerated first. A difficulty experienced by scientists may be a need to tolerate a 'looser' and more general view of phenomena than they have been brought up to regard as valid; but the nature of the exercise is to define *general principles*. It is also to state a case for both an 'art', as it were, *and* a science of psychology, to make a move towards seeking the validity of what is called in Chapter 6 'bimodal knowledge', so that we do not rely on the results of empirical testing alone, but seek some consistency between scientific data and theory, and findings in other fields, and, above all, between psychological data and evolutionary possibilities.

It is argued that, in order to confirm the validity of any data, it is necessary to view them in relation to other data arising from research into whichever other aspects of experience and behaviour they most obviously interact with, and which must necessarily modify or enhance any interpretation. In fact, the exercise of attempting to relate to one another the many apparently conflicting theories which confront us has itself served to identify some possibly distorted and misleading conclusions. Such interpretations seem very often to arise from insufficient account being taken of polymorphism – that is, the existence of many forms of response to the same event, emanating from the fundamental evolutionary principles of adaptability and variability. In short, just as introspection was eschewed and revealed as an inadequate means of investigation by the behaviourist psychologists, so can our current dedication to experimental method, 'hard data', and the scientific mode, be regarded as inadequate, if we ignore the significance of general contexts.

The desire to begin to redress the balance towards what are defined as arts modes of perceiving and understanding, and emphasize the need for much greater complexity to be taken into account in the interpretation of data, are therefore important aims of this synthesis. But, above all, it is an attempt to offer a new way of looking at human nature – at 'who we are', 'where we have come from', and 'where we are going', and to define the implications of the new perspective for two of the most obvious ways in which we intervene in the development of mind;<sup>1</sup> by attempting to promote effective and rewarding physical and mental experiences in others – namely, education and psychotherapy. The point is stressed that we may create hypothetical constructs such as intelligence, personality, and