
In memory of my beloved daughter, Lisa P. Mack

Preface

This book is a narrative description of research designed to explore perception without attention that began in 1988 and initially was carried out in our two widely separated laboratories—one at the Graduate Faculty of the New School for Social Research, and the other at the University of California, Berkeley. With the exception of the first and last chapters, the book is a chronological history of this research project. Thus the reader can follow the trail that led to the final conclusions, and can consider the reasons why initial explanations and hypotheses were either discarded or revised and how new questions arose along the way.

The research brought to light some dramatic and surprising findings, and although many questions remain, some things of importance have been learned. The single most important lesson is that there seems to be *no conscious perception without attention*. Given the explosion of work in the last decade on preattentive perception, this is a provocative claim. Nevertheless, it is one to which we were ineluctably drawn by these findings; we hope, by the end of this book, the reader will be as well.

Although this book deals with material and questions that have been the subject of much research and discussion in the field, we have made no effort to summarize or refer to all the relevant literature. Rather we have chosen to cite representative examples of bodies of work and apologize to those whose research we have failed to mention. Just to be perfectly clear, this book neither attempts to provide a theory of attention, nor to relate the findings reported to possible brain structures. This latter strategy, even though increasingly prevalent in the literature, seems to me (and on this point my coauthor would have been in full agreement) not only premature but frequently misleading.

The book does not contain the very detailed accounts of stimuli and procedures normally found in professional journals. However, we do try to provide enough information so that it is possible to understand what each of the experiments was like. Even so, the book contains a

considerable amount of data and detail, the inclusion of which seemed essential to our purpose. However, wherever possible details about the stimulus displays and the procedures used appear in a smaller font slightly indented, making it easier for readers who prefer to ignore this level of description to do so by simply skipping over these passages. In addition, many of the displays are schematically represented, often with an indication of the most important results obtained, which at times may repeat what is in the text itself. This redundancy is also intended to make it easier to grasp the essentials of what was done and what was found.

The first and last chapters are meant to serve as bookends for the chapters that fall in between them. The first chapter provides a summary of the main research findings and the last summarizes the conclusions drawn from the findings. The rest offer detailed accounts of the many experiments, their outcomes, and the reasoning that led from one experiment to the next.

The research began as a collaboration, as did the writing of this book. Unfortunately, the collaboration came to an unexpected and untimely end. In December 1994 Irvin Rock learned that he had pancreatic cancer. During the precious few, very difficult and painful months between this dreadful diagnosis and his death on July 18, 1995, he continued to work, more than seemed humanly possible, and we tried to continue our discussions about the book. Nevertheless, at the time of his death the book was not yet finished and research was still in progress. There were, however, at least partial, preliminary drafts of all but the last two chapters.

Irvin Rock's death was an irreparable loss. He was my teacher, my collaborator, and one of my closest friends. And this book suffered as well. Had he lived, some of the conclusions and explanations surely would have been different and probably wiser. The book therefore does not represent a full collaboration, and I know there are things that I have written with which he would have disagreed. In his absence, however, I saw no alternative to the approach I took, which was to provide explanations of the results and draw conclusion from them that seemed coherent and reasonably well supported by the data. This sometimes meant modifying or eliminating some text he had written. I regretted this, but I consoled myself with the knowledge that frequently what I was deleting was material that had been written before all the results were in.

One conclusion I am fairly sure would have made my coauthor uncomfortable—which we had just begun to talk about when he became too ill to pursue it—was that the meaning of a stimulus is one of the main, if not the main determinant of whether it succeeds in capturing