

# **CHANGING EXPECTATIONS**

**A KEY TO EFFECTIVE  
PSYCHOTHERAPY**

**IRVING KIRSCH**

# CHANGING EXPECTATIONS

A Key to Effective Psychotherapy

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**IRVING KIRSCH**

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# FOREWORD

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In this book Irving Kirsch introduces a new construct, response expectancies, and integrates this notion into social learning theory. In doing so he follows a tradition of theory-building by addition of new constructs only when they have empirically been demonstrated to be useful by providing explanations and prediction for events not adequately handled by the original set of construct. For the most part the development of theories of personality and psychopathology have followed one of two strategies. The first strategy might be called the “intuitive approach,” where one or two major insights into human nature are hypothesized as central to the development of personality. These theories elaborate on these insights and describe how they influence a wide variety of behaviors. When two or more principles are so enunciated, the interaction of these principles may produce additional predictions about behavior. The psychoanalytic theories and neoanalytic theories, along with that of Carl Rogers, are examples of this approach.

Such theories are illustrated mainly by means of case histories and anecdotal evidence; the careful definition of terms in ways that can lead to agreed-upon measurements come later, if at all. The popularity of these theories may last for a long time, but they ultimately lose vigor and influence because they never produce a body of convincing data that can be replicated under controlled scientific conditions; each clinician revises the theory to suit his or her personality and experience. When practitioners can read their own meanings into a set of terms or concepts, they are more likely to embrace them than if they are forced to accept the more precisely delimited definitions of the theorist. This is true since the precise definitions are more likely to be different from the way in which they have been previously thinking about the same concept.

Such broad insights are not to be disparaged. They may often have considerable heuristic value and lead to the acquisition of valuable scientific knowledge, but only if the terms in which they are described are anchored in reliable, generally accepted measurements. Otherwise, they are ultimately discarded because the conditions under which they are predictive cannot be carefully specified and post-hoc explanations replace predictions.

The second approach to theory-building is to start with a few carefully defined concepts and to carefully describe the direction of relationships among the constructs. Although, ultimately, the operations for measurement may turn out to be inadequate, it is necessary from the beginning to attempt to specify the methods of measurement as clearly as one specifies the definitions. Indeed, in psychology, in the early stages of such theory-building much more attention is usually paid to the problems of measurement than to elaboration of theory. Of course, there are problems with this approach also. Because measurement is so difficult and the conditions under which particular operations will work are so limited, there is a tendency to avoid complex natural settings and to avoid adding new concepts and subconcepts because of the new and difficult problems of measurement. There is also a tendency to avoid studying behaviors that are more complex and produce difficult problems of measurement. Experimental studies tend to try to control for conditions and variables that are normally present in typical human interactions, so that even though the theories may be tested, they can provide prediction only under extremely limited conditions.

It seems clear that theories that will ultimately provide understanding and prediction of complex human behavior need to be constantly growing and changing. The adherents of the theory must accept both the complexity of human behavior and the necessity for precise measurement of person variables and the psychological situations in which behavior is expected to occur. It is just such growth that Kirsch has achieved with his addition of the concept of response expectancies to social learning theory.

The social learning theory developed by me, my colleagues, and students (Rotter, 1954, 1982; Rotter, Chance, & Phares, 1972) has followed the latter tradition. It is an attempt to combine or integrate the two great traditions of cognitive psychology and behavioral psychology. Initially, we set out four sets of basic variables: behavior potentials, expectancies, reinforcement values, and the psychological situation. Over the 35 years since the initial publication of the theory, we have attempted to refine and add concepts, always with careful definitions, concern for overlap, and with operations for measurement specified.

It can be demonstrated that the more narrow and delimited a construct, the greater is the probability of significant prediction. So, for example, achievement need as a broad construct will not predict behavior in a competitive sport as well as the more specific construct of need for achievement in physical skills. Dependency on peers will predict interaction with roommates more accurately than would a broader construct of dependency. Similarly, more specific constructs, dealing with classes of responses, expectancies, reinforcements, or psychological situations can produce more precise prediction, and a useful theory must continually grow by the addition of such concepts.

This book is concerned with expectancies. Initially, in social learning theory, we identified three classes of expectancies: expectancies for behavior-reinforcement sequences, expectancies for reinforcement-reinforcement sequences, and expectancies that have been generalized over a set of similar reinforcements, which we call freedom of movement. To this, we have added expectancies regarding the nature of stimuli, social or otherwise, which we call "simple

cognition," and expectancies that are generalized over similar situations, in that these situations provide a similar problem requiring solution, which we called "generalized expectancies for problem solving."

All of these expectancies are subjectively held and it may be parenthetically added that Bandura's construct of self-efficacy has always been included in expectancies for behavior-reinforcement sequences, since they are not expectancies for whether or not someone else can perform the behavior in question, but for what would happen if the subject attempted to perform the behavior in question. Kirsch (1982, 1985) has shown that when typical operations for the measurement of self-efficacy and behavior-reinforcement expectancies are used that similar predictions are obtained.

Now Kirsch has added to our refinement of the concept of expectancies the construct of response expectancies. These are expectancies for nonvolitional responses, following particular kinds of stimulation. They could be observable or nonobservable responses, such as changes in the state of the organism (emotions, vascular reactions) or motoric responses. The person *believes* that he or she has no voluntary control of these responses if he or she allows or cannot avoid the stimulation. Such responses, Kirsch believes, are of considerable importance in understanding the effects of such interventions as placebos, hypnotic inductions, desensitization treatments, as well as the effects of psychotherapy more broadly considered.

This book carefully reviews and analyzes the literature of these fields and the methodology of research. Kirsch makes a strong case for the significance of response expectancies in examining a wide diversity of studies. His analysis of weaknesses and strengths of the research methodologies typically used in studies employing placebos is particularly illuminating.

Response expectancies for nonvolitional responses are a special case of expectancies for behavior-reinforcement sequences. The psychological situation sets off the expectancies for a response that also has negative or positive reinforcement consequences. The expectancies for such responses may lead to *voluntary* behavior to either avoid or not avoid involuntary response. It is apparent that this has important implications for individual differences in reaction to placebos, hypnosis, and other treatment procedures.

The reviews of the literature on hypnosis, placebos, credibility of treatment procedures, desensitization, the treatment of depression, and psychotherapy outcome are impressive. Kirsch attempts a carefully reasoned meta-analysis of these data and describes the part played by response expectancies, citing his own and others' research.

Kirsch has strongly supported his theories, both logically and with his own and his students' programmatic research. One cannot fail to be impressed and stimulated by this important addition to our understanding of the effects of psychotherapy procedures and the new light it sheds on much data already accumulated.

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# PREFACE

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Philosophers of science sometimes distinguish between the “context of discovery” and the “context of justification.” The process of discovery is much looser than the subsequent process of justification. Discoveries may begin with serendipitous observations, casual introspection, or even idle speculation and intuitive hunches. The rules of scientific evidence, however, are far more stringent. They require systematic and controlled observation to substantiate our hypotheses.

Accordingly, this book is devoted largely to presenting the controlled empirical evidence of the effects of response expectancies and to considering their implications for theory, research, and clinical practice. A preface, however, seems an appropriate place to share with you some of the process by which I became aware of the self-confirming power of response expectancy.

## Mind over Taco

I always liked Mexican food, but I didn’t like hot spicy food; in fact, I found the experience painful. Even a radish made me feel uncomfortable. I coped with this dilemma by frequenting Tex-Mex restaurants only in the gringo neighborhoods of Los Angeles, ordering just the safe foods—burritos, tostadas, cheese enchiladas, and frijoles. The hot sauce sat safely at the end of the table, untouched.

“Have you ever been to El Tippiac?,” Mike Wapner asked, following one of our rambling afternoon excursions down the twisting lanes of theoretical psychology.

I shook my head.

“You’ve got to try it,” he said exuberantly. “They make the best tacos in the world.”

This was too promising to pass up. We collected Nancy, Michael’s wife and colleague, and the three of us went to El Tippiac, where we ordered guacamole tacos. Mike and Nancy began eating theirs with gusto, and I bit into mine with eager anticipation.



When you take your first bite of a hot dish, there is a short period of time during which you can taste the flavor of the food, before it is eclipsed by the fiery sensation of the spice. During that brief delay, the delicious flavor of the guacamole taco came through. But then came the pain—excruciating pain! A familiar searing sensation spread through my mouth, and my eyes began to water.

Normally at that point, I would swallow the offending substance as quickly as possible and grope for a glass of water. But that afternoon, I did not. A sudden insight had occurred to me. Recalling the marvelous flavor that the pain had obscured, and seeing the expressions of pleasure on the faces of my friends, I thought: “Why am I experiencing pain while they are experiencing pleasure? The tacos are the same, and there is nothing *physically* different between them and me. We have the same kinds of taste buds, the same type of pain receptors. It’s not fair! I too should be able to enjoy a guacamole taco.”

Thinking back to that experience, I realize that my conclusions were not entirely sound. Perhaps there *is* a physiological difference between people who enjoy spicy foods and those who find them painful. Yet at the time, I had no doubts. I was certain that the difference was not physiological, and I decided to experience exactly what they were experiencing.

So I did not swallow as quickly, nor did I reach for a glass of water. Instead, I chewed slowly. I rolled the food around in my mouth. I savored it.

And then a strange thing happened. The taco still tasted spicy, but the spiciness was no longer painful. It began to feel pleasant, and finally, wonderful.

From that day on, my experience of spicy food has been different; it is no longer painful. When it is good and spicy, it is spicy and good.

## A Ticklish Question

Some years later, I moved to the East Coast and began teaching at the University of Connecticut. One day, I received a phone call from Marilyn, an old high school friend. She was living in Cambridge now, and had heard that I had moved to Connecticut.

Marilyn came down for a visit, and while reminiscing and bringing each other up to date on how our lives had progressed, I told her of my experience with the guacamole taco.

“That reminds me of something that happened to me when I was a kid,” she said. “I used to be very ticklish, and my father would often tickle me, while I laughed uncontrollably and tried to get away. He thought it was fun, and he just refused to believe that I hated it.

“One day when I was sixteen, I decided that I had had enough. I was not going to be ticklish any more. It was just a decision that I made, but I knew it was true. I was no longer ticklish.

“The next time he tried to tickle me, I didn’t flinch or move away or laugh. I just stood there and looked at him, and after a little while, I calmly asked, ‘Are you through yet?’ Since then, I haven’t been ticklish.”

“May I try?” I asked, and I reached my fingers out toward her. She lifted her arms, shrugged, and said, “Sure!”

She was right. She wasn't ticklish at all.

I thought for a few minutes about the story she had told me, and also about my experience with Mike and Nancy and the guacamole taco. I had always been ticklish and experienced it as beyond my control. It occurred to me that Marilyn's experience with tickling was similar to mine at the taco stand. Marilyn's story suggested that there was no physiological difference between people who are ticklish and those who are not, just as there is no physiological difference between those who enjoy spicy and those who find it painful. She had changed her experience of being tickled just as I had changed my experience of piquant food. And on the basis of those thoughts, I decided that I was no longer ticklish.

"I'm not ticklish any more," I said.

"Sure," said Virginia, a friend who had witnessed the exchange. I lifted my arms and Virginia tried to tickle me. I didn't flinch, and I didn't move away; I just stood there. And then I experienced something that I had never experienced before.

If you are uncontrollably ticklish, it is impossible for me to convey the nature of my experience to you. Having someone try to tickle you when you are not ticklish is a mildly unpleasant experience. Given a choice, you would prefer them to stop, but the sensation is certainly not unbearable. It is about as disagreeable and as tolerable as allowing an ant to walk around on the back of your hand.

I have not been ticklish since.

## The Tickling Cure

Soon after I ceased being ticklish, a friend came for dinner with her 13-year-old daughter, who happened to be uncontrollably ticklish. I told them the stories that you have just read and asked the young girl to think about them. I told her that she could stop being ticklish if she chose to do so, but that she would only succeed if she believed quite firmly that she was no longer ticklish.

I gave her a minute to think about what I had said, and then I asked, "Are you still ticklish?"

She said that she was not.

I then asked her if she was certain, and she assured me that she was. Her mother and I then set about trying to tickle her, but to no avail. Finally, I asked her to be ticklish again. Once again, we tried to tickle her, but to her apparent surprise she found herself unable to be ticklish. We kept in touch for some years, and throughout that time, she remained tickle-free.

Because I had become curious about the reliability of this conversion process, I have since attempted hundreds of tickling cures. Most frequently, I have done so by telling people the story of my own conversion, just as I did with my friend's daughter. In other cases, I have used imagery instead. I ask people to close their eyes, to imagine that someone is approaching them and trying, without success, to tickle them. On occasion, I have coupled this with a hypnotic induction. If one method does not work, I sometimes try another.

I have not kept track of the exact number of times that this has been successful, but my perception is that the successes far outnumber the failures.

More importantly, people are very accurate at predicting their responses to these procedures. I always ask people whether they are still ticklish before testing to see if they are. If the answer is "Yes," I ask if they are sure. When people tell me that they are certain that they are no longer ticklish, they invariably are right.

## As You Believe, So Shall You Be

When I first came to enjoy spicy food, I was reviewing the experimental literature on systematic desensitization, then the most widely touted behavioral treatment for anxiety disorders. When I stopped being ticklish, I was conducting research on the mechanisms by which desensitization achieved its effects. It seemed to me then that some common threads were running through my personal experiences and my academic research. I still believe this to be true.

The threads that link these seemingly diverse phenomena are expectancies and beliefs. More specifically, they are expectancies and beliefs about oneself. My experience of spicy food and of being tickled changed when I became firmly convinced that I was able to experience them differently. Desensitization therapies are effective when they succeed in convincing people that they are no longer afraid.

It has been proposed that the purpose of the brain is to anticipate events (Craik, 1943). This hypothesis may be an overstatement, but it seems clear that our ability to predict the consequences of our behavior developed because of its value for survival. Our ancestors learned to make tools and weapons, anticipating their uses, and they learned to cultivate the land in anticipation of a harvest. In short, their capacity to predict the results of their actions made it possible for them to exert greater control over their environment.

Similarly, much of what we do today is governed by expectancy. Although some of us are fortunate enough to enjoy our work, almost all of us are at least partly motivated by the income that it produces. But that income is generally obtained after the work is done. It is therefore an expectancy that keeps us working. More importantly, it is difficult to think of an occupation in which the work itself is not guided by expectations. We design bridges in anticipation of the loads they will carry, pour water on fires expecting to put them out, recommend investments that we think will yield sizeable returns, write advertisements in order to generate future sales, manufacture goods for people to buy and use in the future, and treat those who are suffering in the hope that they will improve.

This book is about people's expectations and beliefs. In particular, it focuses on people's beliefs about their own reactions to events, especially their emotional reactions. These beliefs, which I have termed *response expectancies*, are important because they are self-confirming. For example, people who are depressed often are locked into a vicious cycle in which they expect to be depressed forever and believe that there is nothing they can do to overcome their terrible fate. This very depressing thought is part of what keeps them depressed. It also keeps them from trying to do something to overcome depression. Further, when they do attempt to overcome their dysphoric mood, their negative expectations make it

likely that their effort will not succeed. Their failure to overcome their depression then confirms the negative beliefs that help to maintain their problem.

This vicious cycle involving the anticipation of a negative consequence that, in turn, generates that consequence is not unique to depression. The belief that one will not be able to fall asleep can keep one awake; the belief that one is impotent can inhibit sexual arousal; and the belief that a panic attack is imminent can produce intense fear. These experiences strengthen and stabilize the expectancies by which they were generated, thereby convincing people that they are insomniac, sexually dysfunctional, or phobic. Treating depression, insomnia, erectile dysfunction, and anxiety disorders requires breaking this cycle, so that dysfunctional self-confirming beliefs are replaced by more benign expectations.

It is my opinion that the psychological theories that will be most useful in the long run are those that are short on speculation and long on experimental data. For that reason, this book devotes more attention to reviewing the pertinent data than to providing detailed instructions on how to treat clients. The purpose of the book is to summarize what is known about the effects of response expectancies, particularly as they relate to clinical concerns. These data indicate that response expectancy is an important factor in the etiology, maintenance, and treatment of many psychological disorders. By understanding expectancy effects, a therapist may be able to select or design therapeutic interventions more wisely, tailor them to match the belief systems of particular clients, and implement them more effectively.

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*Irving Kirsch*

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# RESPONSE EXPECTANCY THEORY

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