

LEPPER
GREENE

THE HIDDEN COSTS OF REWARD
New Perspectives on the Psychology of Human Motivation

THE HIDDEN COSTS OF REWARD:

**New Perspectives on the Psychology
of Human Motivation**

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Preface

In recent years, the most prevalent approach to the study of rewards and reinforcement processes has been an empirical, functional analysis. In this tradition, reinforcers are defined by their positive effects on task performance and the subsequent frequency of the responses on which they are contingent. The scientific and practical benefits of this approach have been numerous and highly publicized. Systematic reinforcement programs derived from this model have proved successful, time and again, in helping to change maladaptive behavior patterns, even with individuals for whom other treatment programs had consistently failed.

By contrast, the common theme among the contributors to this volume is that there are potential costs involved in the indiscriminate use of explicit reward systems and that these costs have received little scrutiny. In support of this contention, the contributors provide considerable evidence that tangible rewards may have negative as well as positive effects on both task performance and subsequent choice behavior. In presenting these data, our fundamental aim is to expand the scope of inquiry relevant to the study of human motivation. Most generally, the book constitutes an appeal for closer consideration of “contextual” and “intrinsic” determinants of behavior—factors that appear to have received disproportionately little attention within the reinforcement *Zeitgeist* that has prevailed in recent years.

There is no denying that the data in this book have been controversial; in fact, much more controversial than they need have been. One need not discard the Law of Effect to recognize that there are questions concerning the consequences of the use of rewards that are not addressed by this analysis. Nor do data suggesting that the inappropriate use of rewards can have detrimental conse-

quences, under some circumstances, imply that systematic incentive programs cannot be used, under other conditions, to produce significant benefits. The question is not whether reward programs are good or bad, but how they can be used most effectively and how their effectiveness should be evaluated.

This volume provides no final answers to these questions. The papers presented here are intended to acquaint the reader with the most recent research and theory concerning the conditions under which rewards may have detrimental, as well as beneficial effects, and the processes that may underlie such effects. This work is new, and our formulations necessarily tentative. If the presentations serve to alert the reader to the complexity of the study of rewards in their social context, the book will have served its purpose.

This volume is divided into three parts. The first section encompasses two introductory chapters that provide an overview of the principal historical contexts from which the work in this volume has derived. McCullers (Chapter 1) reviews early accounts of detrimental effects of rewards on performance and learning in the experimental laboratory and contrasts these early approaches with the more influential current models in which reinforcers, by definition, have only positive effects on behavior. Kruglanski (Chapter 2) approaches the issue from a social-psychological perspective and considers the history of findings that suggest an inverse relationship between the salience of extrinsic incentives employed to produce a given response and the subsequent likelihood of, and attitudes toward, that response.

The second section comprises five original, integrative essays in which the contributors summarize their own research programs and related work and present their current theoretical perspectives on this field. Although it is the convergence of empirical findings across these historically independent research programs that provided the stimulus to this volume, the differences in approach and theoretical orientation appearing in these chapters provide the reader with a variety of unsolved problems and questions for further research. The opening essay by McGraw (Chapter 3) reviews evidence concerning the effects of reward on performance in common experimental learning tasks and seeks to specify when increments and decrements in performance are likely to occur. Condry and Chambers (Chapter 4) focus on the process of learning and the manner in which this process is affected by the motivational context in which an activity is presented. Kruglanski (Chapter 5) considers the effects of rewards on task performance and subsequent behavior in terms of the attributions individuals make concerning their reasons for engaging in activities. Lepper and Greene (Chapter 6) examine the consequences of undertaking activities as means or as ends in terms of the attributional and the attentional processes by which rewards may produce detrimental effects on task performance and subsequent interest in the activity. Finally, Deci and Porac (Chapter 7) consider the effects of rewards on behavior from the perspective of cognitive evaluation theory, in terms of the different functions served by the information rewards convey.

In the final section of the book, several of the contributors examine some of

the implications and limitations of the data presented in the preceding chapters. Condry (Chapter 8) discusses the implications of the hidden costs of rewards for the socialization of children. Deci (Chapter 9) examines the dependence of prescriptive judgments on one's goals and values in evaluating reward programs. Csikszentmihalyi (Chapter 10) considers the implications for society of the fact that many activities can be either onerous or enjoyable as a function of the social context and the skills and frame of mind of the actor. Finally, Lepper and Greene (Chapter 11) discuss the goals, procedures, and presuppositions that underlie the research reported in this volume and compare and contrast them with those that underlie traditional applications of reinforcement procedures to solve social problems. Understanding the benefits and costs likely to result from the use of reward programs in applied settings, they argue, requires attention to these issues and the different parameters embraced by each of these approaches.

Although somewhat obscured by differences in terminology, emphasis, and interpretation, there are a few central themes that run through the research reported in this volume. It is clear that contingent extrinsic rewards generally increase the probability of the rewarded behavior in similar situations; however, their use also has other, less visible, and potentially detrimental, consequences. In this volume, these consequences are viewed as the result of several collateral processes simultaneously affected by the use of salient extrinsic rewards.

For example, the promise of extrinsic incentives often serves to focus an individual's attention on aspects of performance directly relevant to the attainment of those rewards. This focusing of attention on instrumentally-relevant response parameters may improve performance along those selected dimensions. At the same time, it may also result in performance decrements along other dimensions not seen as relevant to the attainment of reward. Thus, the availability of extrinsic rewards can affect the criteria a person employs in deciding whether to approach, how to engage in, and when to terminate engagement in activities for which rewards are offered.

Similarly, contingent extrinsic rewards often provide significant information about an individual's competence. In many contexts, rewards serve to define or signal success or failure at a task, or to provide explicit evidence concerning the adequacy of a person's performance relative to others. Such information can affect one's feelings of effectance or perceptions of competence, and thereby influence his or her subsequent approach to, or enjoyment of, the activity in question.

Finally, the explicit use of extrinsic rewards to modify a person's behavior may also make issues of volition and compulsion salient to that person. In that case, their presence could affect the individual's perceptions of control and/or attributions concerning the intrinsic value of the previously rewarded activity. These processes can result in a redefinition of the conditions under which the individual would expect to enjoy or would choose to engage in this same activity in the future, in the absence of further extrinsic rewards.

Through the study of these collateral processes, the authors of this volume

aspire to a better understanding of the “hidden costs” (as well as the more obvious benefits) of the use of extrinsic rewards to control behavior. The shared goal that unites the contributors is the search for appropriate conceptual analyses of these processes, their empirical manifestations, and their social consequences.

That there is substantially more commonality to our various efforts than may be superficially apparent became obvious when the editors attempted to construct the subject index for this volume. Because this field of study is, as yet, embryonic and lacks a clear consensus on fundamental terms and concepts, the design of a subject index that would both do justice to the formulations of individual authors and guide the reader to points of common argument and discussion proved a considerable challenge. As a consequence, the index to this volume evolved into a significantly more intricate construction than might be expected for a volume of this sort. We hope that it will serve as a useful supplement to direct the reader to the major themes that recur, in slightly different guises, across the chapters of the book.

The idea to assemble this volume arose at a symposium organized by John McCullers and presented to the 1975 meeting of the American Psychological Association in Chicago, Illinois. This symposium brought together investigators independently pursuing closely related research programs in laboratories literally continents apart, and made evident the common themes among their separate lines of evidence relating to the hidden costs of rewards. An edited collection, in which each of the contributors could present a coherent theoretical summary and account of his findings, seemed a sensible way to go beyond tantalizing, but truncated, convention papers.

In the two years between convention commitments and the completion of a final manuscript, much has happened. New research has been completed, theoretical formulations have been sharpened, and numerous revisions have been made in our initial plans. The result is an up-to-date report on the current state of research and theory concerning the potential, and generally unrecognized, costs that may result from the inappropriate use of rewards and constraints.

One decision emanating from our initial discussions—that each of the contributors would provide comments on the first drafts of the others’ chapters—aided us substantially in our task of editing this volume. Although not all of the advice generated by this process (or that contained in our own sage editorial comments) found its way into subsequent revisions, the exchange of ideas stimulated by this cross-editing process clarified for all of us some of the important points of agreement and disagreement among the contributors. The present volume also benefited greatly from the assistance of other colleagues. Teresa Amabile, Janet Dafoe, and Jerry Sagotsky all read substantial portions of this book and shared their reactions with us. Though their facility in pointing out significant theoretical shortcomings and obtuse passages was alarming, their wise counsel and insightful critiques were of great assistance. Likewise, the excellent editorial assistance of Phyllis Amabile, Gail Hampton, and Susan Lyte

helped to turn some of the more ponderous prose into intelligible English. Finally, Ruth Prehn, Patricia Hallenbeck, and Suzanne Taylor provided indispensable assistance in turning muddled manuscripts into clean and seemingly cogent chapters.

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BACKGROUND

There are many histories that might be written concerning the study of the “hidden costs” of reward. Social philosophers from Locke to Dewey have concerned themselves with the manner in which rewards and punishments may be used most effectively to motivate performance and shape behavior. Likewise, much of modern-day experimental psychology had its roots in early laboratory investigations of the effects of rewards and punishments on learning and performance.

The two papers in this introductory section, however, focus in some detail on the two experimental traditions that have most directly shaped the thoughts and research of the contributors to this volume.

McCullers (Chapter 1) traces the history of the study of detrimental effects of rewards on measures of performance and learning from its roots in the study of motivational processes in animals, and he describes the theoretical models offered to deal with evidence of detrimental effects of reinforcement procedures observed in that context. These early theoretical models are then contrasted with an operant approach in which reinforcers are defined empirically and hence, by definition, have positive effects on behavior. This approach, McCullers maintains, has helped to blind us to the possibility that there may be “hidden costs” to the use of rewards.