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A Reaction to Greenwald, Pratkanis, Leippe, and Baumgardner (1986): Under What Conditions Does Research Obstruct Theory Progress?

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Greenwald, Pratkanis, Leippe, and Baumgardner (1986) argued that a theory-testing research orientation contributes to a confirmation bias that impedes the progress of research. To eliminate this confirmation bias, they proposed two complementary result-centered approaches: the method of condition seeking and the design approach. We argue that Greenwald et al. confused the relation between theory and research and that the result-centered strategies they proposed would in no way minimize the bias. We also suggest that result-centered research can impede the progress of psychology because it retards theoretical, methodological, and technological advancement, and encourages increasingly narrow and trivial research endeavors. We conclude by discussing ways to minimize these problems.

> Even scholars of audacious spirit and fine instinct can be obstructed in the interpretation of facts by philosophical prejudices. The prejudice—which has by no means died out in the meantime—consists in the faith that facts by themselves can and should yield scientific knowledge without free conceptual construction.
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> Albert Einstein
> (Clark, 1971, p. 63)

Greenwald, Pratkanis, Leippe, and Baumgardner (1986) recently proposed that the progress of empirical research is obstructed by a theory-centered research strategy. Greenwald et al. argued that investigators who use this strategy are likely to become ego-involved advocates of the theories they are testing and that, consequently, they often ignore data that are inconsistent with their theories and persevere with research directed toward confirming their theories by modifying procedures until results that fit theoretical predictions finally occur. They suggested that this confirmation bias can be circumvented by replacing theory testing as the routine research orientation with two result-centered research strategies, the method of condition seeking and the design approach. The method of condition seeking is an explicit attempt to determine the specific conditions under which a particular known finding can and cannot be obtained. In contrast, the goal of the design approach is to discover conditions under which a previously unobtainable result can be produced.

We agree with Greenwald et al. that researchers are often biased toward confirming their preferred theoretical positions. However, we do not believe that the confirmation bias results from a theory-testing research orientation per se, and we consider Greenwald et al.'s proposed cures to be worse than the disease itself. More specifically, we propose that (a) Greenwald et al. are confused about the relation between theory and research; (b) the methods they propose are currently used and in no way eliminate the confirmation bias; and (c) a result-centered approach is likely to encourage increasingly narrow and trivial research endeavors and discourage the development of more useful methods and theories for understanding human behavior.

Before proceeding, we would like to note a few limitations of this article. First, because of space limitations, it does not acknowledge the work of a variety of authors in psychology and other disciplines that addresses these issues. Second, although we believe our concerns are pertinent to all areas of psychology, our examples are drawn from social psychology. Finally, our arguments, and Greenwald et al.'s as well, primarily apply to basic as opposed to applied science.

The Appropriate Relation Between Theory and Research

Despite occasional declarations of the value of theory, the title of Greenwald et al.'s article ("Under What Conditions Does Theory Obstruct Research Progress?") as well as its tone and contents seem to imply that the goal of scientific inquiry is research progress and that theory is, at best, an essential aid to research progress and, at worst, an impediment to research progress. This viewpoint reverses the appropriate relation between theory and research. The primary goal of basic scientific inquiry is to provide an *understanding* of the phenomena under consideration. Theories are the basis of such understanding in that they are explanations for how or why particular phenomena occur, and for how they are related to other phenomena. Thus, rather than piling up "facts" about the nature of reality, the primary goal of basic science is to develop increasingly use-

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ful theories regarding the phenomena of interest (cf. Sechrest, 1977, 1986). Research should therefore be a tool for facilitating the progress of theory, not, as Greenwald et al. repeatedly implied, the other way around. As Sechrest (1986) similarly observed, "research is a method for testing theoretical propositions . . . to do . . . work simply for its own sake is a futile exercise in non-productivity" (p. 318). If applied to the early twentieth century work on genetics, Greenwald et al's. reasoning would have led one to advise genetics researchers to abandon their theoretical notions because they were distorting their study of fruit flies.

The Role of Overgeneralization in the Advancement of Science

Greenwald et al.'s underestimation of the importance of theory in science is also reflected in their excessive concern that theories foster overgeneralization. With any but the most well-worn theories, generalizations are bound to go far beyond what existing empirical findings can unequivocally justify. That is why further research is needed. Without theory, particular findings could not be generalized at all. All one could say is that a particular effect occurred as assessed by particular measures under particular conditions with particular subjects in a particular lab at a particular point in time. Any theoretical interpretation of a particular finding is therefore necessarily an overgeneralization—and it should be. By framing a theory as broadly as possible and extensively testing its diverse implications, its full power, as well as the unanticipated qualifications and limits on its domain, are eventually discovered. Although Greenwald et al. did acknowledge the inevitability of overgeneralizations, they failed to recognize the extent to which they are both useful and correctable within the context of theory testing science.

Of course, as Greenwald et al. argued, overgeneralizations can lead to inappropriate applications to the real world. However, scientists usually express appropriate caution about application of theory until sufficient theory-testing research has been conducted; the problem is that individuals who must deal with real-world problems often ignore such cautionary statements and attempt application prematurely. Greenwald et al. used the desegregation efforts in the United States, which have not been especially effective (Stephan, 1978), as an example of the problem of overgeneralization. It is an extremely poor example, however, because the social scientists who contributed to the movement toward desegregation specified, on a theoretical basis, the conditions necessary for effective desegregation, none of which were subsequently met (e.g., Allport, 1954). This example is one in which the problem of not waiting for theory to be evaluated is apparent; additionally, it illustrates that overgeneralizations sometimes occur not because of problems with the theory but because of inappropriate applications in which theoretically specified conditions are ignored.

Theories Do Specify Limiting Conditions

Greenwald et al. argued that whereas a theory-testing approach promotes the question "Does a particular effect occur," a condition-seeking approach would lead to the question, "Under what conditions does a particular effect occur?" There are two problems with this assertion. First, until a particular effect is initially shown to occur, it makes little sense to investigate the specific conditions under which it will and will not occur. Second, theories most often do specify conditions under which effects should and should not occur. Even Festinger's (1957) original cognitive dissonance theory led to the testing of the hypothesis that attitudes toward a boring task would become more favorable if subjects were led to tell someone that it was interesting when the incentive for doing so was *small* but not when it was *large*. This example demonstrates that the simplest level of limiting conditions does not necessarily involve an interaction. Furthermore, many psychological theories do specify complex sets of conditions under which particular effects should and should not occur.

The Relation Between Theory and Research According to Greenwald et al.: An Ambiguous Position

Toward the end of their article, Greenwald et al. made statements that seem highly compatible with our position and inconsistent with their own. For example, on the last page of an article arguing for the replacement of a theory-testing approach with a result-centered approach, they stated that

> For result-centered methods (such as condition-seeking and design), again research procedures provide the variations on which selection operates directly. The selection criterion is agreement versus disagreement of an obtained data pattern with one specified in advance. If a procedural variant that has been suggested by a theory does not produce the desired pattern, it is replaced, and, importantly, the theory that suggested it is mildly discredited. The survival of a theory is a function of its ability to generate effective procedures (p. 227).

We cannot discern any meaningful difference between what is described in the foregoing quote and the typical theory-testing approach. A theory generates a prediction which suggests procedures that should yield a certain pattern of results. If the pattern is not obtained, the theory gains no support and may be mildly discredited if the correspondence between the concepts and the operational procedures is above suspicion (an unusual occurrence in psychology). If the pattern is obtained, some support for the theory is claimed. The survival of a theory is a function of its ability to generate predictions that are supported by the results of operational procedures. Greenwald et al.'s position seems to suggest that theories should guide the choice of procedural variants to obtain particular results; if so, whether the desired results are or are not obtained will certainly have implications for assessment of the theory. Indeed, it would be of little use to obtain certain results if they did not have implications for assessment of some theoretical idea.

Consider Greenwald et al.'s specific methods. In condition seeking, the question asked is "Under what conditions does a particular effect occur?" The best way to proceed from there is to use theory to generate a potential answer. The purpose of the research would then be to test the validity of that theoretical answer. Similarly, the design question, "Under what conditions does a previously unobtainable result occur?" is best addressed by theoretically specified conditions. The experiment that would then be designed would test the theoretical idea that those particular conditions lead to the previously unobtainable result. These theory-guided approaches, which Greenwald et al. seemed to advocate, clearly involve theory testing. The only

alternative approach would be to search for the effect under various arbitrarily selected conditions. Although Greenwald et al. did not explicitly advocate such an atheoretical approach, it is the only real alternative to theory testing; therefore, we believe that their general advocacy of a result-centered focus in which the importance of theory is reduced and theory testing is not recognized as the purpose of basic research will encourage empirical research that is detached from theoretical concerns; consequent problems resulting from such research will be considered later.

Evaluating Greenwald et al.'s Result-Centered Approach

Although Greenwald et al.'s position on the relation between theory and research is ambiguous, it is clear that their solutions to the problem of the confirmation bias will not eliminate the problem, and may lead to additional problems of their own.

Why Result-Centered Research Strategies Cannot Help

Greenwald et al. argued that the confirmation bias is a liability of the theory-testing approach. In contrast, we propose that the confirmation bias is in no way uniquely tied to the formal testing of theories and that it is likely to arise in research regardless of whether one employs the traditional approach critiqued by Greenwald et al. or the result-centered methods they suggested as a remedy. The difference between the two approaches is primarily a matter of the centrality of the conceptual framework used to guide one's choice of variables to investigate. With a condition-seeking method, there are a virtually infinite number of possible limiting conditions for any given effect. Rather than randomly choosing variables to investigate, the researcher selects conditions that for a specific reason she or he believes will influence the effect. With a theory-testing approach, these conditions are explicitly derived from a theory or a combination of theories concerning the phenomenon of interest. Because of their concern with assessing theory, theory-testing researchers are likely to pay considerable attention to the theoretical basis of their research and will therefore be likely to work from a clearly developed and articulated theory; in contrast, researchers concerned with condition seeking rather than theory assessment will be more likely to use vague, intuitive theoretical ideas to derive conditions to assess. With either approach, the research is inevitably guided by some theoretical understanding of the problem at hand.

Regardless of the basis of the researcher's choice of mediating conditions to investigate, she or he is therefore likely to expect a particular pattern of results (usually an interaction). In addition, the expected interaction is the only result that would provide a clear contribution with a good chance for publication; a failure to replicate the prior effect could be attributed to a variety of factors (including inadequate research methods), and a main effect would simply fail to limit the generality of the original theoretical statement. The expected interaction effect would thus be most informative and most beneficial to the researcher's career; it is likely, then, that the researcher would have a strong desire to find that interaction.

To the extent that the confirmation bias results from researchers' expectations and desires for particular conclusions, this analysis strongly suggests that the method of condition seeking in no way discourages the bias. If the researcher is searching for limiting conditions, she or he will be biased toward confirming a refined version of the theory rather than the original version; however, the bias will be just as strong, as long as the researcher believes in the refinement, and is motivated to publish to obtain promotions, raises, and prestige.

For similar reasons, the design approach does little better in avoiding the confirmation bias. The most efficient and common way to produce a previously unobtainable result is to derive these conditions from a theory. An example of this phenomenon used by Greenwald et al. is the research on the jigsaw classroom (Aronson, Stephan, Sikes, Blaney, & Snapp, 1978). Clearly, the purpose of this research was not to test a theory, but to apply one. In applied research, as with Greenwald et al.'s design approach, the appropriate goal is often to achieve a desired result. However, in attempting to improve minority achievement and interethnic harmony in the classroom, Aronson et al. applied theoretical principles derived from the work of Gordon W. Allport, Muzafer Sherif, and others. Therefore, even in this example of the design approach, the researchers were likely to have strong theory-based expectations and, possibly, allegiances to particular theories as well. Thus, the conditions likely to lead to a confirmation bias quite clearly exist even when the design approach is used.

Up to this point, we have argued that all research, whether guided by intuitive or formal theory, is subject to a confirmation bias on the part of the researchers. Perhaps, the only solution, then, would be truly atheoretical research, something that Greenwald et al. explicitly disavowed. Unfortunately, even atheoretical research with a practical goal would not necessarily escape the confirmation bias. Even if one assumed that Aronson et al. (1978) had no theory-based concerns, it is quite likely that they expected and were motivated to find positive effects of their jigsaw classroom technique (for altruistic reasons, self-serving reasons, or both).

The confirmation bias would not be eliminated by the procedures recommended by Greenwald et al., or by any other procedures, as long as creatures with beliefs, expectations, and desires conduct research. As a variety of theorists and researchers have noted, human beings have pervasive propensities to apply schemas, expectations and hypothesis-testing strategies in their interactions with the world and these propensities are likely to produce confirmation biases (e.g., Chapman & Chapman, 1969; Fiske & Taylor, 1984; Snyder, 1984). In addition, human beings are motivated to obtain a variety of goals, including money and esteem; therefore, as long as certain findings are particularly likely to lead to these outcomes, there will be bias toward obtaining those certain findings. Unless we find a different species to conduct research, the best we can hope for is to minimize the impact of the confirmation bias on the progress of the discipline.

Additional Problems With Result-Centered Research

Aside from the confirmation bias, which is a problem with all research, result-centered research is likely to contribute to a number of other problems as well. It is important to briefly consider these additional problems because, regardless of appearances to the contrary, there is reason to believe that a great

deal of basic science research conducted in psychology is, in fact, result-centered.[1]

1. Result-centered research retards theory progress because it discourages focus on maximizing theoretical clarity and internal validity and encourages post hoc assessment of theories.

If researchers were not guided by the goal of theory testing, they would be insufficiently concerned with theory development and articulation and with designs that maximize internal validity. If one were simply trying to produce a previously unobtainable result or discover conditions under which an effect will and will not occur, there would be little reason to worry about the precise theoretical base of one's research, or, if the expected result were found, with whether or not the procedures one chose would be consistent with a single theoretical explanation. Thus, in comparison to the goal of obtaining results, the goal of theory assessment is much more likely to encourage researchers to clearly specify their theoretical base and to avoid confounding variables. Quite simply, if one's purpose were simply to create conditions that alter an effect or to produce a new effect, then theoretical understanding of how such results were obtained would not be sufficiently important to the researcher.

There is another perhaps more basic problem inherent in Greenwald et al.'s methods. To progress toward better theories, theories must somehow be assessed; if this is not done a priori, by assessment of predictive validity via explicit theory-testing research, then it must be done by assessment of the posthoc explanatory capability of known theories—or the induction of new ones. This would bias the assessment process in favor of theories that are sufficiently vague, complex, or flexible to account for most any research finding, thereby leading to what most psychologists would view as a serious regression of the discipline back to the days of development and acceptance of untestable theories and purely descriptive models.

2. Result-centered research seeks results rather than answers to important questions.

Greenwald et al.'s method of condition seeking begins with a previously established research finding and proceeds to ask under what conditions this finding will and will not occur. This method limits the questions addressed by research in a number of ways. First, initial evidence for a variety of important phenomena would never even be sought. Consider, for example, the research on self-awareness theory. The theory specifies a number of very interesting effects of self-awareness; motivation to test this theory led to the innovative use of a mirror to heighten self-awareness. In the absence of an interest in testing theory, it seems unlikely that anyone would have investigated the effects of the presence of a mirror on attitude-behavior consistency. There are innumerable similar examples in which the theory-testing approach has led to important research that would never have been initiated by a result-centered approach.

Second, a result-centered approach encourages derivative research that searches for significant effects without consideration of what effects would or would not enhance our understanding of a particular phenomenon. Concern with testing theories guides researchers toward potentially informative rather than uninformative research. When not guided by theory-testing concerns, research will often be conducted in a fashion that promotes consideration of increasingly trivial questions that become detached from the concerns that initially generated the research. The point is that questions that ask whether or not a particular theoretical idea is valid are most likely to advance our understanding of the phenomena of central importance to the discipline. If the purpose of research were obtaining results rather than testing theory, such questions would not often be asked or answered.

3. The result-centered method of condition seeking restricts theoretical concern to explaining research findings rather than the full range of phenomena that comprise the appropriate domain of the discipline.

The condition-seeking approach is focused on laboratory-produced experimental findings of current concern. Researchers are supposed to investigate the conditions under which the effect does and does not occur. On the basis of such investigations, someone is apparently supposed to induce a refined or new theoretical framework that can account for the results obtained, although research should not be explicitly directed toward testing the validity of this framework (see Greenwald et al., pp. 217, 225, 226). One major problem with this approach is that the data base from which theories are induced would consist primarily of research elaborating upon experimental laboratory phenomena.[2] Therefore, the theories that would be developed would be directed toward explaining research findings, rather than the real-world phenomena that are presumably of primary interest and importance to the discipline. Consequently, the result-centered approach would encourage the evolution and assessment of theories that are constrained by existing questions, currently established findings and methodological limitations. Such theories would not adequately explain or even consider a variety of issues that are of obvious relevance and importance to the discipline. A result-centered approach would thus encourage theories and the various disciplines themselves to become increasingly narrow and trivial and, ultimately, profoundly detached from the real-world phenomena that they should be directed toward understanding.

4. The result-centered method of condition seeking retards the development of new methodological and technological advances because it relies too heavily on existing research paradigms.

According to the method of condition seeking, research should be directed toward determining under what circumstances previously obtained effects can and cannot be produced. This would encourage researchers to continue using the methodologies and technologies that have been used in the past

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[1] For example, editors sometimes request that authors reconceptualize the supposed theoretical basis of research submitted for publication and, without prompting, authors often present post hoc explanations of findings as if they were a priori. In addition, because interactions are less susceptible to alternative explanations than main effects, it is likely that researchers will be motivated to find interaction effects. Finally, there is a long tradition of studies in psychology that demonstrate interesting phenomena rather than test new theories. Indeed, the sleeper effect was originally studied not because it supported an interesting theory, but because it was an interesting phenomenon.

[2] We are not arguing that research findings are always inappropriate bases for theory induction but that bodies of research involving a great deal of control and intervention by the researchers generally yield findings of very limited use for induction. In contrast, systematic descriptive research (e.g., the work of Charles Darwin) may be an excellent supplement to casual observation and introspection as a basis of theory induction.

to produce the effects of interest, because the effects must be replicated for the sacred interaction to occur, and thus, for evidence regarding limiting conditions to be obtained. Consequently, the methodological context would either explicitly or implicitly circumscribe the domain of theoretical explanation, leading to theories specifically designed to apply to current methodological and technological contexts.

In contrast, as Einstein proposed for the physical sciences (Clark, 1971) and as Sechrest (1977, 1986) has argued for psychology, new theories induced from real-world phenomena often pose questions and generate hypotheses that cannot be addressed by current methods and techniques. The goal of testing new theories therefore often inspires the development of methodological and technological advances that allows for the study of phenomena that have not previously been considered in research settings.

Summary

Under what conditions does *research* obstruct *theory* progress? It does so when (a) researchers are more concerned with promoting their own careers than with assessing theoretical ideas, (b) research is directed toward producing results rather than advancing understanding through theory testing, (c) theories are assessed by research findings in a post hoc rather than an a priori fashion, (d) existing research is the primary determinant of what are considered to be the important questions for a field, (e) laboratory research is treated as the sole or primary basis for theory generation, and (f) currently available research methods and technologies dictate the form and content of new theories.

Conclusion: Can Anything Be Done to Minimize These Problems?

The problems of confirmatory bias and insufficient theoretical focus occur largely because researchers are thinking, motivated creatures with expectations and desires that affect their behavior. Therefore, we believe that there are no easy solutions to these problems. We would, however, like to make a few suggestions that may reduce the damage that they cause.

As Greenwald et al. noted, the problem of ignoring null results contributes substantially to the confirmation bias. However, it is not clear how to avoid this problem because null findings are not generally informative; there are usually too many possible explanations for why a predicted effect did not occur. In addition, it is not particularly interesting to find that a new theory has failed to gain empirical support. On the other hand, when well-accepted theories continually fail to be supported, or when initial findings supporting a theory are not found in a carefully designed direct replication, publication outlets can be receptive.

Fortunately, some aspects of the current publication system help minimize the problem of individual confirmatory biases. To publish work in prestigious journals, one must submit the work for peer review; this can be viewed as an adversarial system in which the authors advocate their work and the reviewers attempt to find sufficient weaknesses to help the editor justify rejection of the manuscript. Viewed this way, authors are encouraged to take a confirmatory stance and promote their own work. In order to publish their work, however, authors generally have to convince others who do not share their biases; this should limit the extent to which authors' confirmation biases lead to the publication of unworthy work.

After a manuscript is published, a similar adversarial process occurs over a longer period of time. Ultimately, a given theory that is proposed in the literature will gain sufficient support in subsequent research to be accepted, will be refuted by sufficient contrary evidence, will be refined in light of partially supportive evidence, or will be ignored if little further relevant research, supportive or disconfirming, is conducted. In the long run, theories that are supported by spurious or biased results will fall by the wayside, and theories that are overly general will be refined.

Although a given researcher will never be able to avoid confirmatory biases, the community of researchers can thus minimize their overall impact on the field. This will only work, however, if there is considerable diversity of beliefs, motives, and theoretical allegiances, and tolerance for such diversity, in the scientific community. Greenwald et al. noted that for fringe topics, such as parapsychology, very similarly directed biases are shared by many of the researchers. We agree, but we do not consider this to be a major problem precisely because these are considered fringe topics and are treated with appropriate skepticism by the rest of the field. What does concern us, however, are conditions under which too many researchers within a major subdiscipline within psychology, or within an entire field, become too homogeneous in the direction of their confirmatory biases. Such shared confirmatory biases, as manifested by homogeneity in graduate training, editorial practices, and funding priorities, lead to a state of affairs in which the content of a discipline is constrained by current fads and fashions. The psychoanalytic and behaviorist movements may be examples of this phenomenon from the past; the social cognition movement within social psychology may be an example in the present (cf. Neisser, 1980). This state of affairs can lead to an intolerance of other interests, theoretical orientations, methods, and findings. Under these conditions the adversarial controls on confirmatory biases break down, and consequently, the progress of the field toward understanding is seriously impeded.

We are not sure how to combat the problem of widespread shared confirmatory biases, except to advocate staunch tolerance for diversity, resistance to conformity, and skepticism toward any major movement within a field. We do, however, have a more specific suggestion that may minimize some of the problems we have discussed: greater theory development and dissemination without the requirement of immediate, direct empirical support.[3] We believe that an overemphasis on empirical work contributes to the confirmation bias, impedes the development of useful theories, and encourages increasing detachment of the activities of a discipline from its appropriate subject mat-

[3] As our advocacy of theory testing suggests, the type of theories that we believe should be encouraged are those that are potentially testable. It seems to us that many of the "theories" and "models" that are proposed in contemporary psychology are largely descriptive rather than explanatory. These conceptual frameworks do not generate clear predictions and can usually account for any finding posthoc. Therefore, there is no potential basis for empirically assessing their validity and limitations; consequently, they are not likely to contribute towards an understanding of phenomena of interest.

ter. Festinger (1980) eloquently expressed his concerns with this problem:

> How can one insist on empirical precision at the beginning of an idea that seems important and promising? If one does, the idea will be killed; it cannot at birth live up to such demands. The results of such pressures on, and strains within, a scientific field can have serious consequences. The questions that are posed can become very narrow and technical; research can increasingly address itself to minor unclarities in prior research rather than to larger issues; people can lose sight of the basic problems because the field becomes defined by the ongoing research. (pp. 252–253)

Because of the empirical emphasis, papers proposing theories that cannot readily be tested by current methods and procedures are rarely published in well-respected and well-read journals in psychology. Even papers proposing theories that do suggest readily testable hypotheses generally will not be published in such journals until substantial empirical support has been obtained. This state of affairs minimizes consideration of potentially useful and ambitious theories that would require methodological and technological advances or a great deal of research before strong support could be claimed, whereas it encourages consideration of unambitious theories and derivative research closely linked to prior research. In contrast, if well-respected publication outlets were more willing to publish purely theoretical pieces, the original theorists would not be solely responsible for testing the theory and there would be a much greater and more diverse pool of ideas available for the consideration of researchers. In this way, the challenges of ambitious theories derived from the real world and unrestricted by methodological concerns could be addressed by various other theorists and researchers in the scientific community.

References

Allport, G. W. (1954). *The nature of prejudice.* Reading, MA: Addison-Wesley.

Aronson, E., Stephan, C., Sikes, J., Blaney, N., & Snapp, M. (1978). *The jigsaw classroom.* Beverly Hills, CA: Sage.

Chapman, L. J., & Chapman, J. (1969). Illusory correlations as an obstacle to the use of valid psychodiagnostic tests. *Journal of Abnormal Psychology, 74,* 271–280.

Clark, R. (1971). *Einstein: The life and times.* New York: Avon.

Festinger, L. (1957). *A theory of cognitive dissonance.* Evanston, IL: Row, Peterson.

Festinger, L. (1980). Looking backward. In L. Festinger (Ed.), *Retrospections on social psychology* (pp. 247–254). London: Oxford University Press.

Fiske, S. T., & Taylor, S. E. (1984). *Social cognition.* Reading, MA: Addison-Wesley.

Greenwald, A. G., Pratkanis, A. R., Leippe, M. R., & Baumgardner, M. H. (1986). Under what conditions does theory obstruct research progress? *Psychological Review, 93,* 216–229.

Neisser, U. (1980). On "social knowing." *Personality and Social Psychology Bulletin, 6,* 601–605.

Sechrest, L. (1977). On the death of theory in cross-cultural psychology: There is madness in our method. In Y. H. Poortinga (Ed.), *Basic problems in cross-cultural psychology* (pp. 73–82). Amsterdam: Swets and Zeitlinger.

Sechrest, L. (1986). Modes and methods of personality research. *Journal of Personality, 54,* 318–331.

Snyder, M. (1984). When belief creates reality. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 18, pp. 247–305). New York: Academic Press.

Stephan, W. G. (1978). School desegregation: An evaluation of prediction made in Brown vs. The Board of Education. *Psychological Bulletin, 85,* 217–238.

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Editor Named for APA's *Clinician's Research Digest*

The Publications and Communications Board has named George Stricker of Adelphi University's Gordon F. Derner Institute of Advanced Psychological Studies Editor of *Clinician's Research Digest (CRD),* which is being published by the American Psychological Association as of July 1988.

The six-page newsletter reports on research related to approaches to treatment modalities, including any systematic empirical study, as well as some coverage of child and gerontological issues. Although therapy is the main focus, key assessment and diagnostic questions as well as forensic issues are covered. *CRD* is an easy-to-read, fact-based, findings-oriented digest of research that summarizes for practitioners relevant material from the science base of practice. Complete citations are included so that clinicians interested in more information can request the full article from the author.

Although all published material will originate with the Editor, readers of *CRD* are invited to refer to Stricker any references or reprints of articles they find valuable.