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I. BEHAVIOR IN SOCIAL PSYCHOLOGICAL THEORY AND RESEARCH

CHAPTER 1

Behavior and Miracles

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In the Spring of 2007, the social psychology faculty at Purdue University met over lunch to plan the inaugural Purdue Symposium on Psychological Science (PSPS), to be held on the West Lafayette campus in Spring of 2008. How the social faculty came to be responsible for such an event is a long story, beginning with a generous donation to the Psychological Sciences Department by Purdue Alumnus James Bradley, mediated by an allocation and a directive from Department Head Howard Weiss, and culminating with the luncheon meeting described here. We had, at that point, everything needed to initiate planning for the symposium—except a topic. And finding one that all of the social faculty could get behind was seemingly going to take a miracle.

The Purdue social psychology faculty encompassed a diverse set of subfields: attitudes, close relationships, group processes, prosocial behavior, social cognition, social influence, and stereotyping and prejudice. Of course, any of these could have served as an attractive domain in which to target our symposium, at least in the eyes of some subset of our faculty. But none offered the kind of broad, overarching “hot topic” that might capture the interest of a majority of our area, to say nothing of our Department, or of social psychologists in general.

We chewed on a number of ideas, along with our lunches, until someone (named Don) cried out “How about behavior?” As we were then seven years into the American Psychological Association’s “Decade of Behavior,” this inspiration fell somewhat short of divine. However, its status grew as those attending the meeting chimed in with their own perspectives on the topic. Someone mentioned the attitude-behavior relationship, someone else, interpersonal behaviors. In quick succession, automaticity, behavioral synchrony, and behavioral coding and measurement were added to the list. As we digested the suggestions, the menu of possible topics

grew until it became clear to all that we had identified a general (albeit broad) topic of common interest across subfields.

At some point, someone (named Bill) mentioned the famous Sidney Harris cartoon shown as the frontispiece for this book. The cartoon shows a scientist drawing an elaborate formula on the blackboard, in which he has embedded the comment, "Then A Miracle Occurs." Some of those present may have felt that the miracle was the manna from heaven that was to finance our little shindig; others that it lay in our ability to find an idea we could all feed on; and still others, thinking more scientifically, that it characterized the theoretical hand-waving that so often occurs in science when one or more links in a causal chain haven't been fully specified. Whether this last interpretation is a fair description of the science of behavior is one of many issues debated, at least implicitly, in this volume. In any case, as we finished our discussion and our sandwiches, sentiment converged on using "Then A Miracle Occurs" as the catchphrase for our symposium.

Cartoon as Rorschach: Divining the Focus on Behavior

Clearly, the Harris cartoon is open to interpretation. Indeed, it appears to act as a kind of projective test: When presented with it, different scholars focus on different aspects of the cartoon itself or the caption underneath. In that caption, a colleague addresses the scientist who apparently generated the miraculous formula: "I think you should be more explicit here in step two." Some social psychologists have emphasized a mediational interpretation, seeing the miracle as reflecting on theories of processing between stimulus and behavior. Others see the miraculous hand-waving as more typical of theoretical treatments of situational and contextual precursors of behavior, and still others, as characteristic of the field's treatment of behavior itself. Still other scholars have highlighted the "explicit" wording in the caption, arguing for

greater precision in our theoretical constructions, measurements and empirical tests. Finally, at least a few cynics have found it a "miracle" that social psychologists would focus on behavior at all! You will find these interpretations, and more, in the chapters in this volume.

Whether miraculous or not, we firmly believe that focusing attention on issues surrounding the study of behavior is timely and important. Some scholars believe that, across various sub-disciplines of the field, social psychology actually has contributed a great deal to our understanding of behavior and its antecedents. From this perspective, there is considerable utility in drawing together such work in one place. Other scholars suggest that though there has been great progress elucidating the *internal* cognitive, affective and motivational underpinnings of behavior, much less research focuses on *external* behavior itself. From this perspective, it is important to identify the theoretical gaps, the empirical needs, and the focal issues that still demand attention. This and a number of other controversies enlivened the symposium that eventually materialized on the Purdue campus. In what follows, we try to summarize some of these key issues that emerged and that are examined in greater detail in the pages of this volume.

Issues Regarding Behavior in Social Psychology

Psychologists commonly partition the behavioral chain into three parts that can be roughly characterized as the stimulus environment, mediating processes, and behavioral response. We attempted in our symposium, and in this volume, to ensure that all three of these were well represented by scholars studying each. It is therefore sensible for us to organize the issues facing behavior-related theory and research in much the same way.

What do we know about the stimulus environment (and why don't we know more)?

At the root of most social psychological examinations of the causal sequence of action is the stimulus environment. People, more often than not, react to what they perceive around them,

so knowledge about such stimuli to behavior would seem to be of critical importance to social psychologists. Not only do environmental elements elicit conscious activity, but they can also at times automatically determine behavior (see Bargh & Morsella, Chapter 6). Moreover, from an affordance perspective (see Baron, Chapter 13), objects in the physical and social environment give rise to certain actions; they “afford” it. Given what we know (or at least what our theories tell us), it is more than a little surprising that social psychologists have not focused greater attention on the stimulus environment, often termed “the situation.”

Chemistry has its periodic table. Biology has its taxonomic ranks. But what of social psychology? In a field where behavior is held to be a function of the person and the situation, what progress have we made in classifying situations? Personality psychologists have made great strides in delineating basic dimensions of personality (cf. John & Srivastava, 1999), but can the same be said with respect to delineating the basic dimensions of situations? Interdependence theorists (including Harry Reis in Chapter 16 and John Holmes and Justin Cavallo in Chapter 17) have begun the difficult yet necessary work to outline such dimensions. Building on the pioneering theoretical work of Thibaut and Kelley (1959; Kelley & Thibaut, 1978; Kelley, 1983), Reis, Holmes, and Cavallo describe key dimensions of social situations, including the degree of outcome interdependence between actors, the bases of control (exchange versus coordination), and the extent to which actors’ outcomes are correspondent (cf. Kelley, Holmes, Kerr, Reis, Rusbult, & Van Lange, 2003). Such painstaking theoretical work is necessary for efforts by the field to truly understand the situational roots of behavior.

Why don't we study real behaviors (or at least important ones)?

Baumeister, Funder, and Vohs (2007) succinctly captured one major perspective on behavior in a recent article titled, “Psychology as the Science of Self-Reports and Finger

Movements: Whatever Happened to Actual Behavior?” We were so taken with this article that we have reprinted it in this volume as Chapter 2. It reflects a view that is common, though not universal, in the field of social psychology today. The chapter, and the Moreland, Fetterman, Flagg, & Swanenburg chapter that follows, argue that behavior has garnered less interest over the years, both in social psychology at large and in those specific areas of the discipline (e.g., group processes) where one would expect to find more of an emphasis on behavior.

A number of factors have seemingly contributed to this trend. For one, explicit behavioral assessment can be costly and time consuming. In an era when journals typically require packages of multiple studies, more efficient means of assessment (e.g., self-report) are more practical than more laborious ones. Responses to rating scales are easily collected, easily coded and easily analyzed, allowing researchers to get on with Studies 2 and 3 (and 4...) while their behaviorally-oriented colleagues are still coding videotapes from their initial experiment.

A second factor, according to many, was the emergence of social cognition around 1980, and the prevalence of the social cognition perspective thereafter. One aspect of this new approach was a focus on internal cognitive states that might precede or underlie behavior, without much attention to behavior itself. Eventually, affective and motivational concerns, which social cognitionists were initially accused of ignoring, were brought into the fold, but still with an emphasis on the mediators rather than on the behavioral responses they were thought to mediate.

The social cognition fixation on mental mediation arguably had yet another consequence, as researchers were “encouraged” to add measures to their studies to assess states and processes that served as precursors to the phenomena of interest. This inevitably led to more complex studies involving self-report measures, button presses and the other “non-behavioral”

assessments about which Baumeister et al. complain. Sometimes something had to give, and too often, what gave was the final, behavioral outcome measure that might complete the causal chain.

And so, according to Baumeister et al., the field degenerated into a science of self-reports and finger movements. Of course, not everyone agrees with this assessment. Some of those self-reports were proxies for behavioral observations, with respondents reporting, summarizing or predicting their own behavior. Whether such self-reports are a valid source of data about extra-experimental behavior is, of course, an empirical question. As for finger movements, the author of the paragraph you are reading right now would note that such movements represent the only behavior through which he communicated to you the ideas that you are now considering. Add in thumb-movements and you may actually have the principal means of communication for an entire generation of young text-messagers. Which leads us to the next issue:

What, exactly, counts as behavior anyway?

When critics of social psychology lament the field's lack of emphasis on real behavior, they often decline to spell out exactly what they mean by "real behavior." One gets the sense sometimes that they mean behaviors that are dramatic, meaningful and important. One gets the further sense that most behaviors enacted in research laboratory settings probably don't qualify, making laboratory research more or less passé by definition. Perhaps the prototypic real behaviors are acts of aggression, like punching somebody, or acts of altruism, like saving someone's life. Certainly such acts can be dramatic, meaningful and important. And though creative social psychologists have provoked such responses in the lab, they are probably even more dramatic, meaningful and important when they occur elsewhere.

But if the goal of social psychology is to understand "everyday behavior," then it should

be noted that most everyday behaviors wouldn't qualify as real by this definition. Verplanken notes in Chapter 5 that 45% of all behaviors are enacted in pretty much the same place every day. So much for being dramatic. Verbal behaviors, which probably encompass the vast majority of those studied in the lab, are also probably the most common to occur outside of the lab (see Hollingshead, Chapter 20, in this volume). In fact, our guess would be that more people are regularly affected, in meaningful and important ways, by the words, "I love you," and/or "I'm leaving you," than are punched (though the latter two may sometimes co-occur). Nonverbal behaviors are also meaningful and important, as Hall reminds us in Chapter 21. One conference participant even suggested at the symposium that neural events might qualify as behavior, though that is undoubtedly an extreme view.

It may be more productive to specify what kinds of behaviors are being neglected than to quibble about what constitutes behavior and what does not. Chapters in this volume range from those that detail such neglect to those that emphasize the kinds of behavior that are not being neglected in social psychology. As already noted, Baumeister et al. and Moreland et al. provide the strongest exemplars of the former (see also Furr et al., Chapter 10). The latter include Verplanken's chapter on habits, Goldberg's on avocational pursuits (Chapter 11), Bolger, Stadler, Paprocki and DeLongis's on relationship behaviors (Chapter 19), and Hall's chapter on nonverbal behaviors, among others. Many other chapters deal with difficult issues regarding theories or measures of behavior, especially in terms of possible mediators.

What kinds of processes mediate behavior?

A main, take-home message of Fishbein and Ajzen's (1975) Theory of Reasoned Action was that intention is the most proximal predictor of action. Several meta-analyses (e.g., Sheppard, Hartwick, & Warshaw, 1988) and decades of research later, we now know that

intention accounts for about 50% of the variance in behavior. Accordingly, the march is on to better understand behavioral intentions and how they do what they do. Gollwitzer, Wieber, Myers, and McCrea (Chapter 8) describe a particularly thoughtful approach to understanding parameters of the intention-behavior relation. By making important theoretical distinctions among different kinds of intentions, and empirically examining the effectiveness of each, Gollwitzer has helped to contribute to our understanding of this particularly proximal precursor to action.

On the other hand, it would appear that at least 50% of the variance in behavior is not accounted for by intention. In fact, in their chapter, Bargh and Morsella (Chapter 6) suggest that the majority of human behaviors probably occur unintentionally, though all such claims depend quite a bit on how one defines behavior. Bargh and Morsella describe four unconscious behavior production systems and detail evidence regarding the existence and effects of each. Their analysis suggests that unconscious behaviors can be studied as systematically as conscious ones can.

A number of other chapters deal with specific mediators of behavior that fall at various points along the unconscious-intentional continuum. Among these are habit (Chapter 5 by Verplanken), emotion (Chapter 7 by Baumeister, DeWall, Vohs and Alquist) and personality (Chapters 10-13). These chapters hardly exhaust the field's repertoire of possible mediators, but they do raise a number of important, and more general, issues about the nature of mediation. And of course one such issue is how mediators and behaviors are measured.

What gets measured, how and why?

There are many ways to measure behavior. Perhaps the most obvious is through direct inspection of the overt actions of others by observers. Naturalistic observation is the example

that comes to mind easily. Hall (see Chapter 21) also talks about the direct coding of nonverbal behavior, but notes that one of the problems with the research on nonverbal behavior is the atheoretical nature of such investigations. Observer-report data (O-data) has several advantages relative to other forms of behavioral assessment. Often observers have access to information that the actor her/himself may not have. For example, actors may not have as clear a picture of their own standing within a group as do observers, especially in aggregation. Furthermore, an observer can evaluate more than one actor. With multiple observers evaluating multiple actors, research can begin to separate variations and potential biases due to observers from those associated with the observed (Kenny, Kashy, & Cook, 2006). Of course, some observers may be better evaluators of behaviors than others. Just as expert diagnosticians may be more skilled in reading an fMRI than garden-variety physicians, knowledgeable informants such as spouses may have special expertise and privileged information, which could give them a predictive edge compared with people who do not know the actor as well.

Another way to measure behavior is through the use of standardized tests (T-data). Examples of T-data include EEG, EMG and fMRI. A third way to measure behavior is through its residues in the life course. Persons marry, divorce, receive speeding tickets, and die of heart attacks. These residues can be assessed with L-data. Webb and colleagues (Webb, Campbell, Schwartz, Sechrest, & Grove, 1981) describe the utility of trace measures and archival data, where the residue of actual behavior has been stored for reasons other than research, for assessing behavior in a nonreactive manner. Unfortunately, these measures do not exist for many of the research questions that we are interested in addressing.

By far the most common way of measuring behavior used in social and personality psychology is through self-report (S-data). As Paulhus and Holden (Chapter 12; Paulhus &

Vazire, 2007) note, there are good reasons for collecting S-data. For example, Bolger and colleagues (see Chapter 19) describe the advantages of strengthening S-data by using daily diary methods for assessing everyday behavior, including overcoming problems of biased retrospective reporting.

People have access to a wealth of information that is not available to anyone else. But, as stated in the limitation section of many published articles, S-data is not a perfect assessment method, especially when used without converging data from other sources. S-data is subject to a host of biases, including biases associated with retrospective reports of behavior and with issues of motivated self presentation (see Chapter 12 by Paulhus and Holden). Retrospective self-reports of behavior may be skewed because of memory loss, whether due to decay or impaired encoding of the behavioral event, or to reconstructive processes, that might emphasize what we think we should or could have done, rather than what actually occurred.

Many of these issues are considered in detail in the chapters that follow. PSPS gathered leading thinkers in social psychology to consider theoretical and empirical issues relevant to behavior, across the field and with respect to various subfields of social psychological inquiry. Each contributor highlights theoretical and/or measurement issues about behavior, including how behavior is treated in current social psychological theory and research.

We divide our coverage of behavior into two overarching sections: (1) Behavior and Intra-Individual Processes, including social cognition and individual differences, and (2) Behavior and Inter-Individual Processes, including close relationships and group dynamics. Despite the imposed sections, you will find significant overlap in issues examined across sections. Considering a wide variety of behavior-related topics within one volume has been its own sort of miracle, one that we are pleased to share with you.

References

- John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102-138). New York: Guilford Press.
- Kelley, H. H. (1983). The situational origins of human tendencies: A further reason for the formal analysis of structures. *Personality and Social Psychology Bulletin*, 9, 8-36.
- Kelley, H. H., Holmes, J. G., Kerr, N., Reis, H., Rusbult, C., & Van Lange, P. A. (2003). *An atlas of interpersonal situations*. Cambridge, UK: Cambridge Press.
- Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relations: A theory of interdependence*. New York: Wiley.
- Kenny, D., Kashy, D., & Cook, W. (2006). *Dyadic data analysis*. New York: Guilford.
- Paulhus, D. L., & Vazire, S. (2007). The self-report method. In R.W. Robins, R.C.Fraley, & R.F. Krueger (Eds.), *Handbook of research methods in personality psychology* (pp.224-239). New York: Guilford.
- Sheppard, B. H., Hartwick, J., & Warshaw, P. R. (1988). The theory of reasoned action: a meta-analysis of past research with recommendations for modifications and future research. *Journal of Consumer Research*, 15, 325-343.
- Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York: Wiley.
- Webb, E. J., Campbell, D. T., Schwartz, R. D., Sechrest, L., & Grove, J. B. (1981). *Nonreactive measures in the social sciences*. Boston: Houghton Mifflin.