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THE TROUBLE WITH ACTION

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The study of action or goal-directed behavior is of special interest to investigators of social cognition, but the concept of action is not without its unique problems. As compared to behavior, it is more likely that action (1) has obvious consequences, (2) is merely illusory, (3) is open to interpretational ambiguity, (4) is complicated by multiple psychological accompaniments, and (5) suggests the causal efficacy of human agency. These apparent impediments to the social-cognitive study of action may also be identified as challenges. This paper suggests ways in which the trouble with action can promote a science of action.

What remains when I subtract the fact that *my arm goes up* from the fact that *I raise my arm*? Wittgenstein (1953) used this curious question to highlight a profound difference—the difference between action and behavior. Behavior refers to mere movement, whereas action refers to behavior and more. Anything can behave, whether it is scissors, paper, stone, or something else. But goal-directed action appears to be reserved for sentient creatures, humans among them, and it is in this special province that the trouble with action arises.

Psychology has had trouble with action before. Behaviorism can be viewed as one response to this trouble, an attempt to legislate it away by focusing solely on behavior (a *physical* construct) to the complete exclusion of action (a *psychological* construct). This solution has crumbled under the demand for greater psychological understanding, as cognitive and affective variables move to center stage in our field. It is not surprising, then, that there is a landslide of recent work on

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action and purpose (e.g., Abelson, 1981; Bower, Black, & Turner, 1979; Brenner, 1980; Carver & Scheier, 1981; Frese & Sabini, 1985; Gallistel, 1980; Ginsburg, Brenner, & von Cranach, 1986; Graesser, 1978; Norman & Shallice, 1986; Schank & Abelson, 1977; Vallacher & Wegner, 1985; von Cranach & Harré, 1982; von Cranach, Kalbermatten, Indermuhle, & Gugler, 1982).

Despite this accelerating interest, there remains something vaguely unsettling about talk of goal-directed activity. The action concept elicits a subtle malaise, a concern that not all is well. To a degree, this is because we investigators in social cognition and related areas of experimental psychology retain the behaviorist suspicion of a variable that could lose its connection to the physical world. This general concern surfaces in several specific problems with the action concept. There is trouble with action in its (1) obviousness as an explanation, (2) potentially illusory status, (3) interpretive ambiguity, (4) complexity, and (5) suggestion of human causal agency.

ACTION IS OBVIOUS

Action is part of the everyday parlance of human affairs. We talk of what we do and what others do, offering actions both as descriptions and as explanations of our behavior. This means that when a psychologist offers action explanations, they may draw little interest. Psychologists and laypersons alike find action to be a common and thus relatively mundane line of theorizing.

Consider a recent study of "volition," which found that people who decide to eat peanuts, as compared to people who decide not to eat them, do eat more peanuts (Howard & Conway, 1986). A psychology made up of such demonstrations would be frighteningly empty, and despite many calls for just such research into the nature of goal-directed activity (e.g., Harré, Clarke, & De Carlo, 1985), very little along this line has been done. The reason is that we already know this. We know that people often do what they want, that they act as they have deigned to act in advance; further demonstration is simply not an advance for psychology.

The sheer *effectiveness* of action is thus unheralded in our field, left implicit in many areas. The power of action is occasionally noted as an alternative explanation in experiments. So, for instance, rather than showing that wanting to eat peanuts leads people to eat peanuts, we attempt to demonstrate causes of behavior that are much more subtle and even arcane. We orchestrate experiments to see whether people

will help or hurt others, for example, under very specific conditions that we believe will influence their cognitive or affective processes. And all the while, we strive to keep our expectations secret from our subjects, for we realize that these demand characteristics of the experiment are certain to produce activity that is irrelevant to the truth, and determined instead by the subjects' perception of our expectations. We try to keep subjects from knowing what we want them to do. What this means is that much of experimental psychology is an attempt to *sidestep* the obvious effectiveness of action. We try to render action impotent, while we focus on what may be much more feeble influences on behavior.

We also give unspoken acknowledgment to the power of action when we examine cases in which this power is thwarted. This point is clear in the case of the action slips that have interested Freud (1914/1960) and others (e.g., Norman, 1981; Reason & Myceilska, 1982). When people cannot do what they want, we take immediate notice. Much other research can be characterized in this way. The many studies directed toward apparent lapses of rationality (e.g., Kahneman, Slovic, & Tversky, 1982) and occurrences of self-defeating behavior (e.g., Baumeister, 1987) are examples of an emphasis on people not quite doing what they want to do. Similarly, research on cognitive and behavioral processes that are beyond our control (e.g., Schneider & Shiffrin, 1977) is guided by an interest in the failure of action. We seem to investigate just at the fringes of purposive action, noting especially when it *cannot* account for our behavior.

The very obviousness of action as a psychological explanation may be a sign of its sweeping power. The fact that we can take it for granted and build a psychology all around it without speaking of it explicitly may indicate that it plays the role of a fundamental assumption in our field. But treating it as an assumption will not allow us to discern what is decidedly *non*obvious: What can people do just by wanting, and what can they not do? Action is of critical importance to psychology, but we appreciate it so deeply that we must look to its weaknesses and confines to find things that do not seem self-evident.

ACTION MAY BE ILLUSORY

Another disturbing feature of action is its frequent appearance in erroneous accounts of clearly inactive processes. People often assume

the existence of goals or actions in any inscrutable sequence of events. When the computer displays odd, unpredictable, or frustrating results, for instance, it is tempting to point to ghosts in the machine that are doing this on purpose (Turkle, 1984). The perception of actions in the events of nature, of course, has led anthropologists to characterize the explanatory systems of traditional cultures as animistic (e.g., Tylor, 1889/1977). It is also something of a truism in developmental psychology that children perceive purposiveness in many of the events that adults recognize as due to physical causality (Piaget, 1929; but see Keil, 1979). And when split-brain subjects are led to do things without verbal awareness of the causes of their behavior, they invent action descriptions to account for what they have done (Gazzaniga, 1985). People dealing with mysterious events, in short, often use purposive action as an explanatory principle.

An action ascription has thus always been a disappointment of sorts for scientific psychology, an admission of defeat. It seems to indicate that something whose causes are inscrutable has occurred. Indeed, Heider (1958) suggested that although people commonly speak of actions of many kinds, the use of such terms is only a "naive analysis," surviving in the common mind because scientific causal analysis is very difficult. He envisioned the perceiver of a person as desiring a Laplacian physics of causality—a social field of causes and effects that can be traced like the caroms on a billiard table. From the naive perceiver's perspective, however, it often appears that something happens to a person one day, and at some time later, the caused behavior erupts. There is no resounding click of one ball hitting another to mark a cause–effect unit. Rather, the person being perceived is an obstacle to the perception of the causal flow, a discontinuity in the sequence of causality that renders cause–effect relations difficult to grasp. The original cause is often mysterious enough that the perceiver, by default, calls the behavior an action.

Perhaps we researchers shy away from action because we have overextended these observations. Just because some actions are illusions, attributed in error by perceivers who lack causal knowledge, does not mean that all actions must necessarily be illusions. Indeed, the ubiquity of action attribution might also be taken as evidence for exactly the opposite viewpoint—that action exists in such a large measure of human behavior that we naturally tend to stretch the boundaries with excessive action perception. If the baseline occurrence of action is sufficiently high, then we as perceivers may be optimizing our predictive accuracy by assuming that purpose is all around. If we suffer occasionally from illusion, it is only because the reality of action is so pervasive.

ACTION IS AN INTERPRETATION

Social-cognitive psychology has grown to include many of the techniques and perspectives of the contemporary study of cognition. This includes a strong appreciation of the study of matters that are more mental than behavioral. Of course, we have learned from behaviorism that even the most abstract mental models must be substantiated by observable behavioral evidence. We have also learned, however, a prejudice against unnecessary psychological baggage whenever plain observable evidence will do. Action, in this light, is troublesome because it is inevitably an interpretation, an addition of meaning to observable behavioral events.

The most objectionable additions of meaning, the ones that have historically contributed most to our distrust of the action concept, are those perpetrated by psychoanalysis. Consider, for instance, a celebrated interpretation of action offered by Freud (1914/1960). A young Austrian Jew traveling on the same train with Freud quoted a line from Virgil: *Exoriare aliquis nostris ex ossibus ultor* ("Let someone arise from my bones as an avenger"). He forgot to include *aliquis* ("someone"), however, and Freud solicited his free associations in an attempt to uncover the apparent repression. The young man mentioned liquidation, fluid, and then a succession of saints, including St. Januarius and the miracle of the clotted blood that liquifies, among other things. Finally, he revealed the fact that he was obsessed with the thought of an "absent flow of liquid," as he was waiting to hear that day about a lady friend's pregnancy. The forgotten word was tied to a significant underlying theme, one that seemed to have produced the initial forgetting.

All of this suggested to Freud that the forgetting qualified somehow as an action—a goal-directed behavior that, however unconscious or difficult to specify in advance, was indeed produced intentionally. And, of course, this is precisely the kind of post hoc interpretation that both made Freud famous and fanned the flames of the behaviorist conflagration that occurred in response. None of the hypothesized mental activity surrounding this instance of forgetting was observable, and the apparent "act" thus could admit to many other interpretations as well (cf. Timpanaro, 1985). We are left with the realization that a behavior will "stand still" to admit to observation and a unitary identification; in this case, a word was forgotten. An action, in contrast, is open to different possible identifications; in this case, a word was forgotten, or perhaps a worry about pregnancy was expressed.

Actions are open to multiple interpretations or identifications, and the relative truthfulness of these is not strictly discoverable after the

fact (Vallacher & Wegner, 1985). This is why historical interpretation is so interesting: We can place many sensible interpretations upon what was done, and each new interpretation is potentially more exciting and compelling than the last. The "correctness" of such interpretations is arbitrated, however, by an entirely different set of rules from those of scientific investigation. After-the-fact action interpretation is an art, subject to aesthetic concerns rather than predictive ones. And though many psychologists have become intrigued with such action hermeneutics (e.g., Gauld & Shotter, 1977; Gergen, 1978), this enterprise is no replacement for scientific prediction. Our concern for predicting action must include determining what interpretation of the action was present at the occurrence of the act.

Ultimately, it is the very diversity of action interpretations that makes action of greater interest than mere behavior. Action, it seems, is a hybrid variable, part behavior and part cognition. We can observe behavior directly and specify it with precision, but this is merely movement without meaning. The cognitive component is the rich, complex layering of interpretation that makes these movements into psychological events. And even though action is not strictly observable, it is open to investigation with the methods of cognitive and social-cognitive psychology. We can begin to understand what produces different sorts of cognitive representations of action, and in this way learn, for example, what affects the plans that guide behavior (Miller, Galanter, & Pribram, 1960). Knowing how and when an action is interpreted allows us to understand its position in the psychological life of the individual and the group.

ACTION IS COMPLEX

Unlike behavior, action carries with it a surfeit of psychological baggage. It seems that nearly everyone who studies action ends up making a theory of it that includes concepts such as intention, goals, plans, responsibility, or the like. These accompaniments seem reasonable at times because we learn not only what people do from an action description, but also may learn what they want or intend, how they expect to do it, what they deserve as a result, and so forth (cf. Shaver, 1985). The trouble with action from this perspective is that issues of behaving become confused, perhaps inextricably, with moral, social, and even legal complexities that seem out of place in a mere behavior description.

Intention is a particularly sticky companion. Some commentators define action in terms of intention, holding that a conscious cognitive

representation of a goal must occur prior to the behavior, or at least at the same time, for the behavior to qualify as an action (e.g., von Cranach *et al.*, 1982). Other commentators, Freud included, relax this criterion—to the point that some theorists (e.g., Bem, 1972) indicate that people can discover their actions entirely after the fact. Intention may be little more than self-prediction, a guess about one's future behavior fashioned on the basis of past observations. Nonetheless, an insistence on intention is also commonly included in theories of action that concentrate on the responsibility of the actor for performing the act (cf. Feinberg, 1970), because knowing the act's consequences in advance seems an important part of responsibility.

Responsibility creates its own problems. An action description, after all, usually says *who* did it, in addition to the usual portrayal of what was done. Thus, an action may merely be a way of allocating responsibility, and eventually of calculating who deserves what within a social group. It matters very much, for example, whether we charge one of Milgram's (1963) subjects with "giving a fellow subject painful electric shocks" or merely with "pushing buttons." Mead (1938) held this view of action as a social currency of sorts, a public register of credits and debits, and one wonders whether much of the language of action would be necessary if we were not trying to keep track of who gets what. The possibility that we are merely accountants, reviewing the behaviors that have occurred in the day's exchanges for the purpose of listing one another's just deserts, is disturbing to any view of the psychological centrality of action.

But is this really so troublesome? Take the example of another complex psychological entity, emotion. Unlike its simple bodily referents, such as facial expression or physiological change—the parallels to behavior in the case of action—emotion is the center of continued theoretical debates over definitional issues and matters of timing and emphasis. Does cognition or affect come first? Are emotional displays merely social communication systems? Questions such as these have prompted tremendous insights into human psychology in recent years. And questions such as these yield to remarkable paraphrasing in the language of action: Does intention or action come first? Are actions merely devices for keeping social accounts of responsibility?

The argument that action is too complex, it turns out, may be more supportive of inquiry into action than of the abandonment of this pursuit. The connectedness of action to both psychological and social variables is reminiscent of the linkage that affect holds to these fundamental anchors. It is only that action may be too complex *all at once*, and that we need some time for careful analysis.

ACTION SUGGESTS AGENCY

The major philosophical bugaboo that accompanies the action concept is the debate over free will versus determinism. Proponents of action are sometimes inclined to side with a free-will interpretation, arguing that people are responsible causal agents who freely initiate their action (e.g., Gergen, 1978; Harré *et al.*, 1985). This idea creates havoc for much of scientific psychology, of course, because it suggests that action is not determined—that it may occur without prior signs or causes. Certainly, we do not expect to settle the debate here. We do, however, have some observations that may help to separate the free-will issue from the action concept.

Imagine for a moment that we abandon the assumption of determinism and hold that actions may arise without cause. This is not entirely ridiculous; contemporary physics indicates that there may be certain *chaotic* dynamical systems in which there exists no discoverable causal connection between past and future (Crutchfield, Farmer, Packard, & Shaw, 1986; Mayer-Kress, 1986). These systems are characterized by the exponential amplification of error: The initial state of the system cannot be specified with sufficient precision that all subsequent states are predictable, especially those in the distant future. So, for instance, it might be impossible to specify with sufficient precision the position of a rock atop a mountain to determine exactly where it would land on rolling to the bottom. Each change in direction imparted by a bounce would be amplified exponentially by changes produced in later bounces, and the bottom position could not be known in advance. The analogy to human behavior is clear, and in fact has already been noted by philosophers. Dennett (1984) has argued that an "illusion of scale" may account for an irreducibility of actions and purposes to causal terms. Relatively trivial causes operating at one time may cascade in their effects to produce later substantial events that are fundamentally enigmatic.

The physical science of chaotic systems centers on determining when a system becomes chaotic: Just how long must a causal chain be for the cause of an effect to be lost? Similarly, a psychological science operating on the assumption of potentially chaotic action would probably also focus on the boundaries, the points dividing determinate actions from indeterminate ones. But this is already the case. Working under the assumption of determinism as we currently do, we often discover to our chagrin that human actions are unpredictable; this is the sad lesson we learn from years in the laboratory. Indeterminate action in our current paradigm is the null hypothesis—what we find if we do not find anything. All in all, then, we are simply examining the boundary between determined and undetermined action from the "assume determined" side. If we assumed that action can be undetermined, our task would not change.

Only if we assumed that action is *always* chaotic, *always* without cause, *always* indeterminate, would our investigations proceed differently. In fact, they then might not proceed at all. Commentators who seem to be pressing for such a nihilistic approach to psychology propose no viable new alternative, no method of investigation to follow once the scientific approach to action is relinquished (e.g., Gergen, 1982). Accepting these extreme perspectives is, of course, not required at all by the acceptance of action as a psychological variable. We can continue to assume that there are causes of action, and that these are discoverable within limits, as long as we suspect that all is not chaos.

CONCLUSION

It is unclear whether our points in this paper are better described as a succession of straw men or red herrings. Obviously, we perceive that any trouble with action is very much worth attempting to overcome, as the action concept is of great potential utility. The various complaints registered here are those we have heard from others or have wrestled with in our own minds in the course of attempting to achieve a workable understanding of action. We hope that presenting things in this way has helped to provide a balanced view of the issues surrounding the concept of action in social cognition.

As it turns out, the troubles with action are the very reasons it should be studied. The obviousness of action explanations, for instance, suggests that action is indeed a broad and powerful component of behavior causation. The attractiveness of the illusion of action, too, argues for the extensive utility of the action concept in everyday explanation, and hence its potential usefulness in scientific explanation. The multiplicity of action interpretations is similarly a plus, a direct point of intersection between physical behavior and the cognitive-psychological investigation of meaning. The complexity of action is likewise challenging, as the accompaniments of action (such as intent and responsibility) suggest important links between behavior and our social and moral lives. It may even be useful to have available an appreciation of human agency. After all, admiring the mysterious origins of each person's actions adds an ennobling dash of respect to our otherwise deterministic portrait of humanity.

OVERVIEW OF THE SPECIAL ISSUE

We sought contributions to this special issue with several criteria in mind. We hoped to find papers that would sample the wide range of topics in social cognition and action. In particular, we tried to assemble papers considering whether or in what way cognition may be relevant to action in social settings. A second criterion was the inclusion of work on how people perceive and interpret both their own actions and the actions of others. The investigations reported here capture both kinds of actions from several perspectives. And, finally, we wanted to include works that offered empirical rather than purely theoretical treatments. Although the concept of action invites rich theory, we hoped to demonstrate that it is also capable of inspiring strong research.

To begin with, Newtson, Hairfield, Bloomingdale, and Cutino investigate the structure of action and offer provocative hypotheses regarding its cyclic nature. Their work rests on the idea that it is unnecessary to assume a role for cognition in the production and control of action. This provides a useful counterpoint to the other papers in this issue, all of which assume that action flows at least in part from cognitive activity. Anderson and Godfrey show that imagining oneself or another performing an action increases the degree to which one expects that person (but not the other) to perform the action in the future. Beckmann and Gollwitzer focus in turn on the mental processes at work in deciding which action to undertake versus deciding how to implement a chosen action.

The remaining contributions examine the circumstances that lead people to interpret the same action in different ways. Dodge and Tomlin investigate the processes that lead aggressive and socially rejected adolescents to interpret as hostile the ambiguous actions of others toward them. In the last paper, we and Frederick show how the identifications that people offer for their own actions may be influenced by considerations of strategic self-presentation in social contexts. We trust that these articles, taken together, show that attempts to overcome the trouble with action are in fact worth the trouble.

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