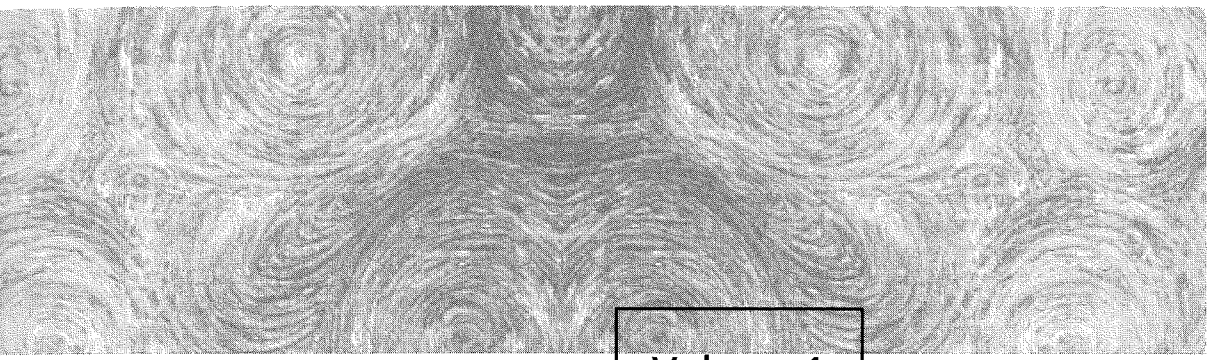
Handbook of

Theories of Social Psychology



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Action Identification Theory

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ABSTRACT

The theory of action identification is a system of three principles explaining how people's thoughts of what they are doing relate to what they do. In a sense, the principles suggest an "operating system" for a human being – a program linking thought to action. The principles suggest simply that people do what they think they are doing, that when they can think of doing something more, they do that – but that when they can't do what they were thinking of doing, they think of doing less. Stated this way, the principles may seem perhaps too simple, but their interaction and ramifications are remarkably complex and predictive of a rich array of phenomena. The theory has things to say about how people can conceptualize their actions optimally, it offers insights into how people regulate actions through thinking, it provides a template for understanding how action connects to emotion and to self-concept, and it suggests how social influence occurs by changing how actions are understood. These consequences of the theory were discovered early on, but have recently been supplemented by extensions to encompass the dynamics of action and the role of action identification in the understanding of own and others' minds.

INTRODUCTION

Life is full of big and little things. One moment you might be planning your career; the next moment you might be turning on your computer or searching for a pen. Sometimes the little things are fairly automatic, requiring little conscious attention, and are irrelevant to the bigger things we have in mind. And sometimes the little things are simply subordinate components to the big things, the details by which we accomplish goals, implement plans, or demonstrate traits and values. So although everyday life can be characterized as the ebb and flow of actions, big and little, psychologists typically ignore the little ones and concentrate instead on people's broader action tendencies. Theories in social psychology are replete with references to goals, values, personal standards, schemas, chronic concerns, and personality traits. Searching for a pen or turning on a computer may be unavoidable details of everyday life but not all that significant in their own right.

The theory of action identification (Vallacher and Wegner, 1985, 1987; Wegner and Vallacher, 1986) grants a far bigger role to the little things. Or more precisely, the theory posits a deep and reciprocal connection between the details of what we do and the larger meanings we have in mind. This dynamic interplay between mind and action is important in its own right, but it is also highly germane to a number of issues of concern to social psychologists. Not all of these implications were on the radar screen for us when we developed the theory in the 1980s. Our aim at the time was far more circumscribed: to generate a parsimonious model of the mental control of action. Since that time, the theory has evolved in two ways. First, it has been extended to topics that go beyond mental control per se, from personality and self-concept to social influence and conflict resolution. Second, the theory has morphed into forms that resonate with contemporary perspectives in psychology, including cognitive science and dynamical systems. The emergent nature of the theory is apparent in some of the work the two of us have pursued independently, often without explicit reference to the original theory.

Our big aim in this chapter is to describe action identification theory and trace its trajectory from the 1980s to the present. We begin by outlining the basic theory and its initial range of application. We then indicate how the theory's scope has broadened over the years to account for important domains of social experience. In the next part, we discuss how the theory has been reframed in recent years in light of new developments in psychology and science generally. In a concluding section, we throw caution to the wind and suggest that the dynamic scenario at the heart of the theory provides a template for human experience. When liberated a bit from its specific principles and couched in more general terms, action identification theory can be viewed as a metatheory that expresses the essence of personal and interpersonal dynamics.

THE BASIC THEORY

Back in the early and mid 1980s, we were blissfully unaware of where our actions would take us. We were certainly trying to think big, but we were also caught up in lots of little things. In big terms, we looked upon our collaborative effort as constructing a theory about mental control. We also saw our mission as integrating insights from several perspectives that were coming into their own at the time. Attribution theory and cognitive dissonance phenomena were never far from our minds, but of more immediate interest were cybernetic models of action (Carver and Scheier, 1981), unitization in behavior perception (Newtson, 1976), and the endogenous–exogenous distinction in lay epistemology (Kruglanski, 1975). Our reading and thinking even strayed from psychology to encompass philosophical approaches to the understanding of action – like those of Goldman (1970) and Hampshire (1960). Each of these perspectives conveyed something fundamental about the relationship between mind and action, and we aspired to synthesize these insights in a parsimonious framework.

But we also did lots of little things, many of which seemed at odds with constructing a new theory. We stayed up late, occasionally drank scotch, made goofy jokes, offered wild-eyed speculations on the human condition, and even constructed a few faux psychological instruments (e.g., the Hidden Brain Damage Scale) to make each other (and others with suspicious standards) laugh. Out of these seemingly irrelevant asides, we experienced a number of insights and breakthroughs that transformed our thinking about mind and action – although these probably paled in number with the all-too-frequent "What were we thinking?!" false starts. In a reflexive approach to theory construction that borders on narcissism, our reflections on the role of these little acts in promoting a bigger sense of what we were doing became central to the theory itself. We realized that an action, even a highly important one like

theory construction, tends to become transformed mentally as well as mechanically over time and we suspected that there might be a reliable and meaningful pattern to such transformations. Perhaps, we thought, the movement between big and little things is central to the mind–action relationship, satisfying the dual and sometimes conflicting criteria of effectiveness and global understanding. At that point, of course, we promptly opened another bottle of scotch.

Central to our thinking at the time was the inherently ambiguous nature of human action and the perils this posed for theory construction. But we came to see this issue as a promise, more than a dilemma, and proceeded to develop the theory around it. Below we describe this progression from the uncertainty of action to the certainty of action understanding conveyed in the theory's three principles.

The uncertain act

In science, the phenomenon to be explained is usually well defined. When chemists theorize about chemical reactions, they don't have to guess about the nature of molecules. The same certainty lies at the heart of physics. Sure, quarks and dark energy are inferred, but at least the inferences, however controversial, are clear and precise. Even in the social sciences, the fundamental units are well defined. Economists develop models concerning the flow of money and tangible resources, anthropologists construct theories about religious beliefs and cultural traditions, and political scientists theorize about power structures and voting practices.

Social psychology is certainly a science, but the building blocks for theory construction in our field are not as well defined as are the building blocks in other scientific realms. Social psychological theories focus on a wide variety of constructs – norms, roles, beliefs, values, and so forth – but underlying all these constructs is the concept of action. Social psychology is ultimately concerned with what people *do*, whether privately or in explicit social contexts such as relationships, groups, and crowded streets. But therein lies the rub: what exactly is the unit of action that corresponds to the physicist's protons, the biologist's genes, or the economist's dollar? What is an action and how can it be defined unequivocally so that it can provide a solid foundation for theory construction?

This question, we soon learned, was a bit of an obsession in philosophy. Coming from distinct traditions and armed with diverse assumptions, many philosophers have noted that an action does not admit to a single, unequivocal definition, but rather can be identified in many different ways (e.g., Danto, 1963; Goldman, 1970; Ryle, 1949). Something as straightforward as "driving to work" could be just as accurately identified as "operating a motor vehicle," "burning gas," "obeying traffic laws," "following a daily routine," or simply as "stepping on pedals" and "turning a wheel." When the focus turns to actions that are of greater interest to social psychologists – harmful versus helpful behavior, fairness versus injustice, and so on – the availability of multiple identities for the same action can prove problematic for theory construction. The act of "criticizing someone," for instance, could be viewed by observers, or even by the actor him or herself, as "acting rudely," "asserting dominance," "offering a different point of view," "providing constructive feedback," or simply as "uttering words." Which identity is deemed the "real" one makes a big difference in the explanation that is generated.

Even if there is consensus in the meaning attached to someone's action (e.g., the critical comment is widely perceived to be mean-spirited), the action still does not have an unequivocal definition. The same action in a different context might promote a very different consensus regarding its meaning (e.g., the critical comment in a policy-making group might be seen as constructive). It is also the case that actions are commonly characterized by equifinality (functional equivalence), further complicating the task of establishing stable building blocks for

theory construction. Mean-spirited, for example, provides functional equivalence for both verbal criticism and the silent treatment. Criticism, in turn, can be instantiated in very different ways (e.g., pointed comments or sarcasm). This problem exists even if one reduces action to button pushes or other simple operational definitions. A button can be pushed by a wide variety of physical motions involving different limbs and digits. Beyond that, when an action is reduced in this fashion, the number of potential identities for it increases in a proportional manner. A button push can mean virtually anything depending on the program to which it is attached or the context in which it occurs. Protons and dollars don't pose this problem.

To a critic, it might seem that social psychology is built on shifting sands, without a clear foundation for theory construction. Just such a criticism was in ascendance during the period in which we were busy developing our theory. Gergen (1985) was especially vocal in this regard, arguing that a science of social psychology was impossible in principle because of the inherent ambiguity of action. He, and others who shared this sentiment, seemed to suggest that we should give up the pretense and concentrate instead on how to make people happy (whatever that is!). But we were mindful of Kurt Lewin's remark that "one man's artifact is another man's theory." In this spirit, it occurred to us that far from being a problem for theory construction in psychology, the inherent ambiguity of action could be viewed as the key to understanding the relationship between mind and action. After all, despite the multiple identities available for any action, people seem to know in unequivocal terms what they are doing, have done, or intend to do. Somehow people sidestep the uncertainty of action and navigate the stream of potential act identities one at a time. How do they do it?

Levels of action identification

Ironically, we can make sense of action certainty by looking into the human mind that is ultimately responsible for the ambiguity of action. The mind is designed to identify (or create) patterns in the real world. Lacking this pervasive tendency, people would be overwhelmed by the complex and nuanced information that continually bombards their senses on a moment-to-moment basis. Meaningful actions exist because we find or impose patterns on the specific behaviors we observe or otherwise learn about. The patterns are constructions, but once generated, they are maintained because they disambiguate reality and thereby provide coherent understanding and a stable platform for subsequent thought and behavior. Because they are constructions, however, they can admit to tremendous variability across people and contexts. Hence, the certainty of action that exists for each individual embedded in a particular context coexists with the uncertainty of action across individuals and contexts. Philosophers and psychologists live in the latter world, at least when wearing their professional hats and when talking about other people's realities.

That said, there is one metric for disambiguating action that seems solid and reflects a shared reality. The multiple act identities for an action tend to be organized in a hierarchical manner. Lower-level identities in the hierarchy convey the details or specifics of the action and thus indicate *how* the action is performed. Higher-level identities provide a more general understanding of the action; they indicate *why* the action is performed or what its effects and implications are. Higher-level identities are less movement-defined than lower-level identities, and provide a more abstract and comprehensive understanding of the action. Identification level is relative, so whether a particular act identity is a high or low level depends on the identity with which it is compared. What looks like a goal (e.g., "getting married") can be identified as a means with respect to a higher-level identity (e.g., "starting a family"). An act identity that seems molecular (e.g., "turning on a computer"), meanwhile, could represent a goal with respect to a yet lower-level identity (e.g., "pushing a button").

A simple criterion is useful for sorting an action's multiple identities into a hierarchy. One act identity is higher-level than another identity if it makes sense to say that one does the former *by* doing the latter (Goldman, 1970). Thus, one "goes to work" *by* "driving a car," one "drives a car" *by* "stepping on pedals and turning the steering wheel," and one "steps on pedals and turns the wheel" *by* "moving one's arms and leg." People appreciate the notion of an asymmetric *by* relation and demonstrate a very high degree of consensus in sorting act identities hierarchically in this fashion (Vallacher and Wegner, 1985).

Some act identities are not asymmetric in this sense, but rather have a *level-indeterminate* relation with one another. "Being rude" and "being constructive" are both plausible higher-level identities for "criticizing someone," for example, but they do not have an obvious hierarchical relation. To distinguish among such act identities in a meaningful manner, we have employed various psychometric methods, including multidimensional scaling and, more commonly, factor analysis. In the factor analytic approach, participants rate a wide variety of identities for an action (generated in pilot research) according to how well they personally describe the action. Factor analyses of these ratings typically reveal a single low-level factor that captures the most rudimentary act identities and two or more higher-level factors that reflect differences among identities with respect to valence and content-relevant dimensions. "Being rude," for example, loads on the same factor as other negative implications of criticism (e.g., "showing disrespect," "disregarding someone's point of view"), whereas "being constructive" loads on the same factor as other positive higher-level identities of criticism (e.g., "offering a different point of view," "providing useful feedback"). The dimensionality of higher-level act identities has theoretical relevance for a host of personal and social phenomena. These implications follow from the principles of action identification.

Theoretical principles

It is not surprising that people can distinguish among an action's available identities by virtue of an asymmetric *by* relation. But how do people pick one level over another to identify what they are doing, have done, or intend to do? Why does someone look upon his or her action as, say, "going to work" rather than "driving a car," or as "playing a piano" rather than "expressing feelings"? And after an action is identified in a particular way, what determines whether it is maintained under that identity or instead is reidentified later in different terms? Why do higher-level identities (e.g., "being cooperative") sometimes resist change in the face of social pressure, but at other times change dramatically in content and valence (e.g., "being competitive")? What is the relationship between how an action is identified and how effectively the action is performed? The answers to these questions are conveyed in three principles.

Principle 1: Action is maintained with respect to its prepotent identity

Action identification would hardly be worthwhile for people, let alone worth theorizing about by social psychologists, in the absence of this principle. It is central to models of self-regulation, of course, and in a broader sense to any theory that posits a link between mind and action (e.g., Carver and Scheier, 2002; Higgins, 1998; James, 1890; Miller et al., 1960). A person's prepotent act identity functions as an intention to initiate an action, a frame of reference for performing the action, and a criterion to assess how well the action has been performed. Because an action can be identified at different levels, the principle directly implies that people can maintain action at different levels. A person may intend to "send an e-mail," for instance, and monitor his or her subsequent action to see whether this intention was fulfilled. Alternatively, the person may intend to "contact a colleague" (a higher-level act identity) or "propose a collaborative writing venture" (a yet higher-level act identity), and monitor

the attainment of whichever act identity is prepotent.

Principle 2: When both a lower- and a higher-level act identities are available, there is a tendency for the higher-level identity to become prepotent

The idea here is that people are sensitive to the meanings, consequences, and implications of what they do. Within social psychology, this principle is reflected in the emphasis on goals, plans, values, and other global constructs that are said to motivate personal and interpersonal behavior. The preference for higher-level understanding is not unique to social psychology, but rather is central to many theoretical traditions, including learning under reinforcement contingencies, the mastery of skilled action, pattern formation and recognition in Gestalt psychology, inductive reasoning in cognitive psychology, and the "search for meaning" in existential psychology. These different schools of psychology share the assumption that act representations expand to encompass broader effects and meanings. In learning, a basic act expands to incorporate the reinforcing effects of the action. In the development of mastery, discrete acts become automated and integrated into a larger action unit. In Gestalt psychology, parts are unified to produce a perceptual whole. In induction, separate observations or pieces of information are organized into an explanatory account. And in existentialism, patterns discerned in distinct actions are recognized as manifestations of a larger action tendency.

Principle 2 enables people to choose one of many plausible act identities and actually do something. Without this principle, people would be "buried in thought," entertaining a multitude of possible intentions in a given context. So when two or more plausible identities are available, people are inclined to choose the identity that provides the most comprehensive understanding of what they are doing, plan to do, or have done. A person could think about his or her behavior as "using eating utensils," for example, but is more inclined to gloss over such details and identify the behavior as "eating dinner." If cues to yet higher-level identities are available, the person is likely to embrace them over the now-lower-level "eating identity." Thus, he or she may look upon the meal as "getting nutrition," "satisfying my appetite," or "putting on weight."

Principle 3: When an action cannot be performed in terms of its prepotent identity, there is a tendency for a lower-level identity to become prepotent

If Principle 2 was the only basis for action identification, people's minds would be populated by abstractions, fantasies, hopes, and fears, as increasingly higher-level identities emerge as ways of thinking about one's action. Even the most rudimentary act could be charged with high-level significance in this manner. Such progressive integration would be possible if people lived in a world in which every thought was feasible and easily enacted.

Reality is not so accommodating. There are obstacles to enacting goals and plans, and even in the absence of such disruptions, the personal difficulty of achieving one's ends can derail an action undertaken with respect to a higher-level identity. A person might set out to "demonstrate tennis prowess," for example, only to disappoint him or herself, as well as observers, as he or she loses point after point during the tennis match. To regain control of the action, the person is inclined to adopt a more manageable lower-level act identity, such as "hitting cross-court shots." If this act identity is not effectively performed, the person might drop to a yet lower-level act identity, thinking about "preparing the racket" or "getting in proper position before swinging the racket." Whereas Principle 2 can lead to progressively higher levels of action identification, Principle 3 pulls people in the opposite direction, leading to progressively finer gradations of detail, with attention devoted to increasingly molecular features of what they are doing. The potential for flights of fancy that is inherent in the second principle, then, is unlikely to

pose a serious problem for most people because of the reality orientation inherent in the third principle.

Several factors dictate how detailed a person's act identity is likely to be. Actions that are complex, unfamiliar, or time-consuming tend to be identified in low-level terms. An easy or familiar action may also be identified in lower-level terms if it is disrupted. And any action – even one that is fairly easy and free from disrupting influences – tends to be identified in lower-level terms as the time for enactment approaches, a point that has been further documented in temporal construal theory (Trope and Lieberman, 2003). Engaged couples, for example, identify the act of getting married in high-level terms several weeks in advance of the wedding, but think about progressively finer details (e.g., saying vows, walking down the aisle) as the day approaches (Vallacher and Wegner, 1985: Chapter 4). Finally, simply instructing people to think about their action in molecular terms can prove sufficient to induce a low-level mindset.

The emergence process

Taken together, the three principles impart a dynamic interplay to the connection between mind and action. Low-level identification is a relatively unstable state that is adopted out of necessity rather than preference. Movement to a lower-level state (Principle 3) thus provides the precondition for adopting a higher-level identity (Principle 2) that restores coherence in the mental system and provides a stable platform for action (Principle 1).

Sometimes this process is akin to getting around a roadblock. After a brief detour to lower-level details, the person is back on track implementing the original higher-level identity. If this were always the case, though, people would never develop new ways of acting. But people do develop new insights into their actions and often chart new courses of action. When a higher-level meaning has been abandoned in order to regain control of an action at a lower level, for example, the person becomes sensitive to cues to higher-level meaning in the action context, and these may provide an avenue of emergence to a new way of understanding the action. Lacking the lower-level state, the change from one high-level identity to a different one would not occur.

Our initial experiments on action identification were attempts to validate the emergence process. Wegner et al. (1984, Experiment 1), for example, investigated whether experienced coffee drinkers could be led to think about coffee drinking in a new way if they were induced to focus on the details of drinking. Some participants read an essay arguing that coffee drinking makes people *seek out stimulation*; others read an essay arguing instead that coffee drinking makes people *avoid stimulation*. After reading the essay, participants listened to musical passages through headphones, with the expectation that they would subsequently rate the passages. They were free to adjust the volume of the music if it was too loud or not loud enough. Half the participants drank from normal coffee cups, but the others drank from heavy cups covered with duct tape (ostensibly as a safeguard against electric shock because of the electronic equipment in the music appreciation task).

Participants who drank coffee from the normal cups did not adjust the volume reliably one way or the other in response to the essay they read. Presumably, they already had a high-level identity for coffee drinking (which we verified in a pilot study), so the identity for coffee drinking provided in the essay did not provide a new way to think about the act. But participants who drank coffee from the unwieldy cups were influenced by the essay: those who read the "seeking stimulation" essay turned the volume up (increasing stimulation), whereas those who read the "avoiding stimulation" essay turned the volume down (decreasing stimulation). The unwieldy cups induced lower-level act identities for coffee drinking (verified in pilot research), such as "lifting a

cup" and "swallowing liquid." The essay then provided an avenue of emergence to a higher-level identity (seeking versus avoiding stimulation) of what they were doing.

Emergence also takes place on a longer timescale. As people become increasingly competent at an action, for example, they tend to identify the action in terms of its consequences, self-evaluative implications, and other forms of meaning, rather than in terms of its lower-level details. This "sealing off" of lower-level act identities, which is consistent with research on skill acquisition, has been demonstrated for a variety of actions, including piano playing, essay writing, tennis, karate, and videogames (Vallacher and Wegner, 1985). In all cases, people initiate the act with a relatively high-level identity in mind, move to lower-level identities as they learn the action, and then move to a higher-level act identity as the action becomes more-or-less automated and mastered. We discovered, however, that the emergent identity was rarely the same high-level identity that motivated the people to begin with. Playing the piano, for example, was identified initially by many people as "impressing my friends" but after a sustained period of low-level maintenance, the now-proficient piano players came to identify piano playing as "relaxing myself." The tendency for an emergent act identity to differ from the action's antecedent identity suggests a scenario by which people develop new motives, interests, concerns, and insights into their mental make-up.

Negative high-level identities can also be embraced in this fashion. People can deflect an undesirable characterization of their behavior through a variety of interchangeable cognitive mechanisms (cf. Tesser et al., 1996) as long as they have a more flattering depiction available at the same identification level. Someone informed that he or she has acted rudely or demonstrated insensitivity, for example, may be uninfluenced by this feedback if he or she looks upon the action in question as offering constructive feedback. But if the person is induced to think about the lower-level aspects of the action, he or she is primed for emergence and thus is more likely to accept the unflattering higher-level characterization. In this way, people are capable of accepting responsibility for actions with negative consequences and implications, and are open to new insights into their motives and personality dispositions.

The optimality hypothesis

The tension between preference (Principle 2) and necessity (Principle 3) is manifest as an oscillation over time between higher and lower levels of identification. This oscillation eventually dissipates, with the prepotent act identity converging on a restricted range of identities at a level that provides a balance between the two tendencies. This level represents the *optimal level of identification*. A person may prefer to think about his or her behavior at a party as "demonstrating wit and charm," for example, but reality constraints may promote a lower-level orientation involving such identities as "think of funny comments," "smile and maintain eye contact," and "look for gullible people." The optimal level represents a compromise between comprehensive understanding and effective action. As such, it signifies the base-rate difficulty of the action for people generally, or the level of action mastery for an individual.

Despite the tendency toward optimality in action identification, people's mental dynamics are not always in perfect resonance with their overt behavior. Indeed, the lay (and scientific) fascination with psychology is attributable in large part to problems in the feedback between mind and action conveyed in the optimality hypothesis. People routinely fail to do what they intend, and often fail to profit from their mistakes in subsequent planning and behavior. To a certain extent, lapses in mental control reflect a lack of skill or experience with respect to the action in question. If failures in action signified only a lack of preparation or ability, however, the interest in psychology would center

primarily on issues of learning and skill development, with the study of personality and social psychology occupying a subsidiary role. Fortunately for our field, people make mistakes despite having the requisite skill, experience, and motivation to perform the action effectively (cf. Baumeister and Heatherton, 1996).

Dysfunctional action occurs when people monitor and control what they are doing with respect to a level of identification that is nonoptimal for the action's performance. This potential exists because an action's available identities are constrained by the context in which the action occurs. Most of the contexts defining everyday life are stacked in favor of relatively high-level identities, since there are usually salient cues to an action's causal effects, socially labeled meanings, and potential for self-evaluation. When a person is offered a reward or threatened with punishment, for instance, it may prove impossible for him or her not to define what he or she is doing in these terms. In similar fashion, situations involving competition, audience evaluation, or other pressures to do well may keep the person mindful of high-level identities of a self-evaluative nature (e.g., "demonstrating my skill," "trying to win," "impressing others") at the expense of the action's more molecular representations. If the action is personally difficult, the context-induced high-level identities will lack sufficient detail and coordination of components necessary for optimal performance.

This reasoning is consistent with research demonstrating that unfamiliar or complex actions are adversely affected by factors that charge the action with significance. Thus, a complex task suffers when it is linked to salient rewards, when it is performed in the presence of an evaluative audience, and when it is performed in a competitive context (cf. Baumeister and Heatherton, 1996). These factors each impart a fairly high-level representation to the task (earning a reward, impressing an audience, demonstrating one's skill), so it is not surprising that they impair performance when the task is difficult or unfamiliar and hence best enacted with respect to more molecular representations. In effect, the basic action elements are discharged without the degree of conscious control necessary to assure their moment-to-moment coordination.

On the other hand, some contexts can induce a level of action control that is too *low* for effective performance. This is likely to occur when there are distractions, obstacles, or other sources of disruption that render the action's details prepotent. A jammed keyboard, for instance, can reduce "preparing a chapter" to a series of discrete keystrokes. Low-level identities also become prepotent in novel settings lacking familiar cues to an action's higher-level meaning. In yet other contexts, a person's attention may be drawn to the details of his or her behavior, inducing him or her to experience a lower level of identification than would normally be the case. If the action is personally easy for the person and thus best performed with relatively high-level identities in mind, the prepotence of lower-level identities resulting from disruption, novelty, or instruction can undermine the quality of the person's performance.

Consistent with this possibility, research has shown that performance can be disrupted when attention is drawn to the over-learned details of an action (e.g., Langer and Imber, 1979). The more over-learned the action is, the greater the performance impairment engendered by a conscious concern with how to perform the act (Kimble and Perlmutter, 1970). A proficient piano player, for instance, can become derailed in the middle of a familiar piece if he or she looks at the music and starts to think about which sequence of keys to hit with which fingers. This form of nonoptimality represents consciousness trying to micromanage a problem that is best left to lower-level echelons to work out among themselves.

Support for both manifestations of nonoptimality is provided in a study of speech fluency (Vallacher et al., 1989). Participants were asked to deliver a prepared speech to

either an easy-to-persuade audience or a difficult-to-persuade audience. Half the participants were induced to think about the action in high-level terms ("try to persuade the audience"), and half were induced to focus on the lower-level details of delivering the speech (monitoring their voice quality). In line with the optimality hypothesis, the participants made fewer speech errors when their level of identification matched the personal difficulty of the act. Specifically, speech fluency was maximized when the task was personally easy (i.e., the audience was believed to be easy to persuade) and identified at high level and when the task was personally difficult (the audience was hard to persuade) and identified at low level. When the match between the action's difficulty and level of identification was nonoptimal (the easy act identified in low-level terms and the difficult act identified in high-level terms), participants tended to stumble over their words and experience frequent speech pauses. The nonoptimal participants also rated their speech performance as relatively poor compared with participants in the optimality conditions.

THE EXTENDED THEORY

The theory in its original form was intended to address the ambiguous nature of action and to develop principles concerning the mental control of action. It soon became apparent, however, that the reciprocal feedback between mind and action had implications for a variety of other topics of interest to social psychologists, including emotion, personality, self-concept, and social influence.

Emotion

Perhaps the most widely accepted division of psychological processes is the tripartite distinction among action, cognition, and emotion. The theory had a lot to say about the connection between thought and action, but barely mentioned emotion. After developing the theory and devising empirical tests of emergence and optimality, the role that emotion might play in action identification dynamics came into sharp relief. Far from being irrelevant to action identification, emotion plays a key role in calibrating the mind–action connection. It does so by providing the hedonic basis for achieving and maintaining an optimal level of identification.

Emotion serves this function by signaling when mind and action are not well calibrated. In general terms, this contention is consistent with theories suggesting that negative emotion commonly results from the interruption of goal-directed action (cf. Carver and Scheier, 2002; Simon, 1967; Vallacher and Nowak, 1999). Interruption can take many forms, from environmental obstacles to the interference of other people. Our perspective suggests that nonoptimal identification also qualifies as an interrupt – an identity that is either too low- or too high-level disrupts the successful coordination of elements necessary for action implementation. Interruption promotes arousal, which in turn engages epistemic concerns regarding the source of the arousal, presumably in service of choosing an appropriate course of action. In like manner, a breakdown in mind–action coordination can promote heightened arousal which alerts the performer to possible reasons for the breakdown. In essence, the ineffective performer examines his or her mental content with respect to the action, with an eye toward finding another way to think about what he or she is doing. Arousal stemming from faulty calibration, then, becomes manifest phenomenologically as a special form of self-scrutiny.

Research has established a link between heightened arousal and self-focused attention (Wegner and Giuliano, 1980) and various models concur that attention to the self tends to impair task performance. There is little consensus, however, regarding the means by which self-focused attention produces this effect. In some models, to be self-conscious

is to be aware of the potential self-evaluative implications of what one is doing (e.g., Wicklund and Frey, 1980). Defined in this way, self-focused attention is said to impair performance by reducing attention to task-relevant features. Test anxiety, for instance, is said to occur when the test taker is preoccupied with self-evaluative thoughts (e.g., "I'm going to fail," "I'll be embarrassed") to the relative exclusion of attention to the subtleties of the task at hand (Sarason, 1972; Wine, 1971). But in other formulations (e.g., Kimble and Pelmutter, 1970), self-consciousness refers to heightened awareness of the processes or mechanics underlying the execution of behavior (e.g., the physical movements involved or the coordination of such movements). Models that embrace this definition of self-focused attention argue that a conscious concern with the process of performance essentially disintegrates the action, robbing it of its fluidity and rhythm (cf. Baumeister and Heatherton, 1996).

These contrasting views of self-consciousness map directly onto the optimality hypothesis. The self-evaluative implications of behavior constitute a special class of relatively high-level action identification, whereas the mechanics of behavior reflect considerably lower-level act identities. From the optimality perspective, neither orientation is inherently linked to self-consciousness; rather, each can give rise to such a state depending on the personal difficulty of the action. Specifically, the experience of self-consciousness arises whenever one's conscious level of action control is either too high or too low, given the action's personal difficulty. When performing a simple act or a complex one that has become fairly automated, people will feel self-conscious to the extent that they are conscious of the molecular features of the action. For a difficult act that is best performed with such features in mind, however, self-consciousness is associated instead with sensitivity to the act's larger meanings and effects.

Evidence for this perspective on self-consciousness and its role in performance is provided in the study of speech fluency (Vallacher et al., 1989) discussed above. In addition to tracking participants' speech errors and self-rated performance quality, we asked them to indicate their degree of self-consciousness (as well as anxiety, tension, etc.) while delivering the speech. Results showed that these ratings paralleled the pattern obtained for speech fluency: self-consciousness and related feelings of aversive arousal were greatest when the easy task was identified in low-level terms and the difficult task was identified in high-level terms.

The arousal and negative emotion associated with nonoptimal identification diminishes as people bring their conscious representation of what they are doing into line with the action's difficulty. This does not mean, however, that people's affective state goes flat when they control an action with respect to the optimal level of identification. Rather, people experience positive affect when there is a perfect match between the demands of a task and their mental and behavioral readiness to perform the task. Csikszentmihalyi (1990), for example, has observed that when people experience congruence between their capabilities and the demands of the task – a state he refers to as "flow" – they report diminished self-awareness. The link between optimality and positive emotion is also consistent with research on perceptual fluency (e.g., Winkielman and Cacioppo, 2001), which shows that stimuli are viewed positively to the extent that their features are processed easily. In analogous manner, one can speak of *action fluency*, in which the person has a well-orchestrated and adaptive understanding of an action that facilitates smooth execution of the action. An optimal level of identification enhances the degree to which a person can experience action fluency.

Personality

The optimality hypothesis holds that people will identify their actions at the highest possible

level that still affords effective action control. People clearly differ in their respective expertise in specific domains and thus are also likely to show corresponding differences in the optimal level of identification. A professional tennis player will identify "playing tennis" at a considerably higher level ("winning a match," "improving my ranking") than will (or should) a week-end warrior ("get the ball over the net," "bend my knees but not too much"). But it also occurred to us that people may differ in their competence more generally, across a variety of action domains. Some people undertake more hobbies during their youth, for example, and become adept at a wider ranger of activities than do others. There may also be variation in the degree to which individuals encounter information pertaining to the distal consequences of action. Positions of responsibility, for example, may sensitize people to the higher-level implications of action. It could be, too, that learning to appreciate the higher-level identities of action in a few domains creates a readiness to see actions generally in these terms.

We referred to cross-domain differences among people in level of action identification as individual variation in *level of personal agency* (Vallacher and Wegner, 1989). At one end of this dimension is the low-level agent, a person who functions in different domains in a relatively molecular or detailed manner. This person's base-rate tendency is to focus on the mechanistic details of actions. At the other extreme is the high-level agent, someone whose base-rate tendency is to view what he or she does in terms of the action's causal effects, social meanings, and self-evaluative implications. Everyone is likely to have a stable, domain-specific identification level for certain actions, but level of personal agency influences how an individual identifies action across a wide range of domains.

This dimension of individual variation does not represent a trait in the usual sense of the term. A personality trait typically refers to a tendency to emit behaviors from within a content-defined class, such as "sociability" or "conscientiousness." Because any action can be identified in many ways, however, this approach to personality is problematic. "Criticizing an acquaintance," for example, could be viewed as an instance of a trait such as unfriendly, but this classification may miss what the action really meant to the actor. Perhaps he or she was "offering constructive feedback" or "expressing an opinion." Behavioral dispositions reify one particular identity at a relatively high level and thus may fail to capture what people really do. Level of personal agency goes beyond specific behavioral dispositions to address whether the person has trait-like dispositions at all. High-level agents can be expected to enact many of their behaviors under the guidance of higher-level meanings such as self-conceived traits, goals, and values. In contrast, low-level agents tend to engage in actions that are not personally connected to such larger meanings. Level of personal agency, in other words, represents the degree to which an individual has organized his or her actions into abstract, meaningful categories that can channel behavior into dispositional tendencies.

To explore whether there are cross-domain individual differences in level of action identification, we developed the Behavior Identification Form (BIF) (Vallacher and Wegner, 1989). It consists of 25 act identities, each followed by two alternative identities, one lower and one higher in level. "Making a list," for example, is followed by "Getting organized" (higher-level) and "Writing things down" (lower-level). "Resisting temptation" is followed by "Saying 'no'" (lower-level) and "Showing moral courage" (higher-level). Participants are asked to choose the alternative identity that best describes the action for them. Their level of personal agency is simply the number of high-level identities chosen across the 25 items.

We found that level of personal agency was reliably correlated with several aspects of people's psychology, including action effectiveness, action planning, impulsivity,

action stability, self-monitoring, internal versus external locus of control, and key aspects of self-concept. Compared to low-level agents, the high-level agents were more skilled at a variety of actions (e.g., planning a party, teaching tricks to a pet), had more hobbies, were less impulsive and more intentional in their everyday behavior, were lower in self-monitoring, and had an internal locus of control. High-level agents were also more likely to describe themselves in terms of traits, ascribed greater importance to traits in their self-definition, had higher self-concept certainty, and were less susceptible to social feedback regarding their dispositional qualities. High- and low-level agents did not differ in their level of self-esteem, however, so the relevance of personal agency to certainty and malleability of self-concept is not mediated by the valence of people's self-concept.

Level of personal agency sheds light on the issue of personal versus situation causation, which periodically surfaces as an obsession in social psychology. Low-level agents' behavior tends to be under situational control, in that they enter action contexts with little sense of the action's implications in mind and thus are primed to accept cues to higher-level meaning found in social feedback or situational pressures. High-level agents' behavior, in contrast, tends to be under the control of personal goals and self-conceived tendencies. As a result, they are able to maintain their actions with respect to meaningful representations they carry with them across action contexts. Most people exist between the extremes of this dimension, so it is not surprising that behavior for people in general reflects a combination of personal and social influences.

Self-concept

A prevailing wisdom in social psychology is that people will go to great lengths to maintain their self-concept (Tesser et al., 1996), even if the self-concept is unflattering (Baumeister, 1993; Swann, 1990). Thus, people resist new information that might promote a change in their self-perceived qualities, clinging even more tightly to their prevailing self-view. On the other hand, there is reason to believe that self-assessments are strongly impacted by feedback from significant others or even casual acquaintances (cf. Felson, 1989; Mead, 1934). The emergence scenario suggests that both generalizations are valid, but under different circumstances.

A person is likely to deflect or discount social feedback if he or she has a coherent high-level perspective on his or her behavior. If the person knows that he or she is cooperative, for example, he or she is unlikely to embrace feedback suggesting that he or she is really competitive. The self is clearly a familiar object of thought, so the base-rate tendency is to think about one's self-relevant behavior in high-level terms, thereby making self-concept change difficult. But under conditions that promote lower-level identities for an action, a person should show susceptibility to feedback from others that provides an avenue of emergence to higher-level understanding. The emergent identity may be quite different from prior identifications, and thus may provide the person with new "insight" into his or personal make-up.

We investigated the relevance of emergence for self-concept change and stability (Wegner et al., 1986). We arranged for participants to have a "computer analysis" of their personalities. The input for this analysis was participants' description of five things they had done in a recent interaction with someone of the same sex. In the high-level condition, they were asked to describe five things they had done that reflected their opinions, values, and personality traits. In the low-level condition, they were asked to indicate five specific actions reflecting concrete movements and utterances. The computer responded to these inputs with one of two personality profiles – one indicating that the participant was cooperative, the other that he or she was competitive. Participants were then asked to judge the validity of the computer feedback, describe themselves on various

traits dimensions including cooperative and competitive, and rank order several activities (including both a cooperative activity and a competitive activity) in order of preference for future participation.

By all three measures, results confirmed the emergence scenario. Participants in the high-level condition were skeptical of the computer program and their self-descriptions showed a slight reactance effect – those described as cooperative rated themselves as somewhat competitive and those described as competitive tended to rate themselves as cooperative. This is what one would expect from models that stress self-concept defense (e.g., Swann, 1990). The high-level participants' activity rankings did not show a preference for the activity that reflected the feedback (cooperative or competitive) they had received. High-level identification, then, provided a shield against social feedback. The results were far different for participants in the low-level condition. They judged the computer program to be valid and they rated themselves in accordance with the feedback the program provided – as highly cooperative in response to cooperative feedback but as highly competitive in response to competitive feedback. And their ranking of the future activities reflected their emergent self-understanding. Those provided with cooperative feedback gave a higher ranking to the activity that called for cooperative behavior, but those provided with competitive feedback ranked the competitive activity more favorably.

This scenario of self-concept change has straightforward implications for the effectiveness of psychotherapy intended to change a person's dysfunctional attitudes concerning him or herself. People resist changing their ideas of what they are like, even when these ideas paint a rather glooming or depressing picture (e.g., Swann et al., 1992). Faced with a person's dysfunctional self-view, a therapist (or a well-intended friend) might be tempted to challenge the person's view directly, encouraging him or her to adopt a more positive attitude. Such a frontal assault may have a temporary impact (e.g., Swann et al., 1990) but is destined to fail or even backfire in relatively short order because it runs counter to the person's coherent and comprehensive self-assessment.

The challenge is to disassemble this high-level identity by getting the person to focus on specific aspects of his or her behavior, and then provide cues to alternative higher-level identities that paint a more flattering self-portrait. Instructing the person to think about the behavioral evidence for his or her self-assessment, as is done in certain brands of cognitive therapy (e.g., Beck and Weishaar, 2000), trades on this idea. Cognitive behavioral therapy goes a step further by encouraging the client to *do* things rather than simply think (e.g., Meichenbaum, 1977). Because concrete actions require at least some attention to lower-level details, this approach is especially likely to create the low-level mindset that is the precondition for emergent understanding.

Social influence

Social influence is widely considered to be the pivotal process in social psychology. Any theory worth its salt, then, must have something worthwhile to say about the factors that determine whether or not an individual will change the way he or she thinks or acts with respect to a particular topic or domain. Of course, people can be induced to change their actions and expressed opinions through the application of strong forces, whether rewarding or punitive. But change is likely to be more enduring when it goes beyond enforcing overt behavior to changing the internal dynamics of the target. To promote such changes, it is necessary to disassemble or otherwise destabilize the target's way of thinking, priming him or her for reconfiguration in line with cues to the new message provided by the influence agent.

The disassembly–reconfiguration scenario clearly follows the counters of the emergence process. When people have a coherent

high-level identity for someone's behavior, they are relatively immune to alternative interpretations and evaluations. Metaphorically, people "freeze" when they have a high-level understanding that provides a sense of cognitive closure (cf. Kruglanski and Webster, 1996; Lewin, 1936). But when people identify someone's behavior in relatively low-level terms, they become receptive to coherent perspectives on the behavior provided by social sources and other external factors. In effect, people are motivated to "seize" a higher-level interpretation that provides personal closure concerning the action's meaning.

The extrapolation to social influence is straightforward. The influence agent first induces the target to consider the relevant action in concrete, low-level terms. Simply describing the action in terms of its details can induce low-level identification, as can presenting the target with a surplus of concrete information regarding the action. From this low-level state, the target experiences a heightened press for coherence. On his or her own, the target might emerge with a higher-level identity that reflects past perspectives or perhaps one that reflects a new integration. But if the influence agent offers a message that provides the missing integration before the target has demonstrated emergence on his or her own, the target may embrace this message as an avenue of emergent understanding, even if it conflicts with his or her prior conception.

The emergence scenario in social influence was tested by asking participants to allocate blame for an alleged rape incident (Vallacher and Selz, 1991). The nature of the incident was such that the motives and intentions of the alleged rapist and victim were open to different interpretations. The incident was presented in the form of a police interview with either the alleged rapist or the victim. Participants read the interview under either a low-level set (reading for detail) or a high-level set (reading for meaning). They then read a police summary concluding either that the perpetrator should be charged with rape or that there were insufficient grounds to press charges. The participants were then asked to allocate responsibility for the event between the perpetrator and the victim. Participants (both males and females) in the low-level condition assigned blame in line with the police summary they read, whereas those who read the interview under a high-level set were not influenced by the police summary. Focusing on "just the facts" in a case of alleged wrongdoing may reduce the influence of one's personal biases, but this attention to detail can make one all the more vulnerable to influence by other people with biases of their own.

The disassembly–reconfiguration perspective on social influence has been embraced by others in recent years, albeit with considerable refinement and extension to different domains of influence (cf. Knowles and Linn, 2004). Social influence comes in diverse forms (compliance, persuasion, guilt, seduction, etc.), but perhaps these forms are built to a certain extent on a shared platform that reflects people's press for coherent higher-level understanding (Vallacher et al., 2003).

THE EMERGENT THEORY

The extensions we have described were largely unanticipated in the 1980s when we were preoccupied with getting the principles straight. The theory may be poised for yet further growth, but change this time is likely to take the form of transformation in light of new ideas and methods in psychological science. In particular, two lines of theory and research – *mind perception* and *dynamical social psychology* – represent new ways of framing the dynamics of action identification. The mind perception perspective generalizes action identification principles to the understanding of the minds and actions of other people. It is consistent with several emphases in contemporary psychology, including theory of mind, neural bases of empathy, and the perception (and illusion) of agency. Dynamical

social psychology adapts principles and methods of dynamical systems and complexity, which are at the forefront of contemporary theory and research in the natural sciences, to the investigation of personal and social processes. Within this perspective, the principles of action identification capture a basic dynamic scenario in the mind–action relationship.

Mind perception

The experience of high-level identification says a lot about the actor's mind. In particular, when the action is complex and extended in time, a high-level mindset suggests both intentionality (acting on purpose, having a plan, working toward a goal) and executive cognitive processes (conscious control of the action, working memory, mindfulness). Actions performed under lower-level identities also require an active mind, of course, but they don't seem to demand the same caliber of mental states. One can move a finger without a great deal of intention and thought, after all, but appreciating the consequences of the finger movement (e.g., sending an e-mail, firing a gun) implicates mental processes rather directly. A recent neuroimaging (fMRI) study has in fact demonstrated greater activation of brain regions associated with higher-order cognitive processes (e.g., temporo-parietal junction) when people are identifying action in high- as opposed to low-level terms (Marsh et al., 2009).

The connection between a person's level of action identification and his or her mental control of the action provided the original focus of the theory. Recently, though, the connection between identification level and mental states has been extended to the perception of other people's actions and minds (Kozak et al., 2006). People are quite willing and able to infer how other people's minds work and such inferences are central to a host of issues in social judgment, including liking, the attribution of personal versus situational causation, personality judgment, and allocation of responsibility (e.g., Carruthers and Smith, 1996; Epley and Waytz, 2009; Frith and Frith, 2003; Idson and Mischel, 2001; McPherson-Franz and Janoff-Bulman, 2000; Wegner, 2002). Do people show the same variability in identifying the actions of others as they do in thinking about their own behavior? Is this variability related to the inferences people make about others' mental states? What factors shape each inference – action identification and attribution of mind – and the relationship between such inferences?

To answer these questions, Kozak et al. (2006) modified the BIF (Vallacher and Wegner, 1989) to allow participants to identify a target person's actions rather than their own. They also developed a Mind Attribution Scale (MAS), consisting of ten items assessing participants' inferences about another person's capacity to act with intention, engage in complex cognition, and experience emotion. The BIF and MAS were then employed in several experiments involving vignettes about various hypothetical target persons. Each experiment focused on a particular aspect of the link between action identification, mind attribution, and person perception. Kozak et al. found, first of all, that high-level identification and attribution of mind (intention and complex cognitive processes) were both associated with liking for a target person who was described in fairly neutral terms. Indeed, the level of action identification for liked targets was often higher than the identification level participants' indicated for their own actions. People are constrained by reality (e.g., personal difficulty, unfamiliarity) in identifying their own actions, but the sky is the limit when thinking about the actions of other people.

By itself, the link between liking and inferences about mental states is open to interpretation; liking may cause high-level identification and mind attribution, but the reverse causal path is also plausible. Kozak et al. (2006) untangled this issue in other experiments by having participants make

judgments about a target person who was clearly likable versus unlikable. The results made clear that evaluation was primary: The liked person was credited with higher-level identities and a more complex mind than the disliked person. This is not cause for concern when likability centers on obvious qualities (e.g., honesty versus dishonesty, sociability versus aloofness). But they found the same relationship when liking was manipulated by the target's fortune versus misfortune. There is evidence that victims of misfortune tend to be derogated by others, even when the misfortune is not of their own doing (Lerner, 1980). When participants read a vignette about a male student in financial straits who could only afford one meal a day, they reported unfavorable evaluations of him, identified his behavior in lower-level terms, and credited him with less complex cognitions. Victims, it seems, do not have minds like the rest of us.

There is an exception to the connection between liking and high-level identification. Sometimes the people we like do bad things and sometimes the people we don't like do good things. Kozak et al. found that high-level identities were inferred when the valence of the actor matched the valence of the action. So for liked target persons, positive actions were identified at higher levels than were negative actions, but for disliked target persons, negative actions were identified at higher levels. Because high-level identification is linked to personal responsibility, these results are consistent with the tendency to credit liked others (e.g., friends, heroes) for good behavior and to blame disliked others (enemies) for bad behavior. The results are also consistent with research on people's self-presentation of their own actions (Vallacher et al., 1987). People tend to describe their mistakes in terms of lower-level details but to emphasize personal attributes and goals when describing their successes and noteworthy deeds.[1]

If higher-level action identification promotes mind perception, it might also undermine processes that lead to the devaluation of minds and, ultimately, to dehumanization. The tendency to see others as animals (Epley and Waytz, 2009), robots (Haslam, 2006), objects (Fredrickson and Roberts, 1997), or as otherwise less than fully human (Harris and Fiske, 2006) may thus depend in part on the deconstruction of mind perception through low-level action identification. It is not yet clear which particular aspects of mind perception are reduced in lower-level action identification – whether, for example, minds are seen as less capable of having experiences or being agentic (Gray et al., 2007), or as less capable of serving as moral agents or moral patients (Gray and Wegner, 2009). What is clear is that identification level influences our perception of minds as worth preserving, and so may ultimately be instrumental in leading people to treat each other as less than human. Action identification may be an initial step toward both the moral regard we give to our most respected conspecifics and as well as to the abject disregard we visit on those we fail to recognize as fellow members of the human race.

Dynamical social psychology

The dynamic interplay between higher and lower levels of action identification has a natural resonance with the way dynamical systems in other areas of science evolve, function, and change (cf. Guastello et al., 2009). In its most basic sense, a dynamical system is a set of interconnected elements that influence each other to achieve a common or coordinated state. The resultant higher-order state typically has emergent properties, which simply means that the qualities of the state cannot be reduced to the properties of the constituent elements. Once such a state emerges, it constrains the behavior of the elements that gave rise to it. Because it 'attracts' the system's dynamics, the coherent state is referred to as an *attractor*. A system's attractor stabilizes the system and actively resists change due to outside influences. If change occurs, it is because feedback loops among

the elements are weakened, increasing the degrees of freedom in the system and thereby undermining the coherence of the higher-order state. From this disassembled state of affairs, the system is primed for emergence to a new higher-order state that provides a different configuration of the lower-level elements.

Over the past decade, these hallmarks of a dynamical system have been identified for a variety of social processes, including social judgment, self-concept, social influence, societal transition, and intractable conflict (cf. Vallacher and Nowak, 2007). In self-concept, for example, elements of self-relevant information become integrated to form a coherent perspective on the self, which then constrains the processing of subsequent input, enabling the system to resist change when exposed to inconsistent information or social feedback (Nowak et al., 2000). Self-concept change occurs when the lower-level elements are singled out or decoupled from one another, setting the stage for their reconfiguration with respect to a new and possibly quite different self-view. This basic scenario, which has been detailed as well for the other phenomena indicated above, reflects the essence of the emergence scenario of action identification theory. Not until these manifestations of dynamical social psychology were developed, however, was their genesis in action identification principles appreciated.

Reframing action identification in dynamical terms suggests two refinements of the emergence process. In the basic theory, emergence occurs when people in a low-level state are provided cues (e.g., social feedback, vivid consequences) that signal an action's higher-level meaning. In a dynamical system, though, emergence can occur without external influence due to self-organization among system elements (Vallacher and Nowak, 1997). This means that the intrinsic dynamics of the mental system can promote emergent meaning – an attractor – for an action's lower-level identities. As a person thinks about and performs a sequence of basic acts, a higher-level identity may spontaneously emerge. Because intrinsic dynamics of mind can take place outside of conscious attention (Port and van Gelder, 1995), new insights into one's action can pop into awareness without warning, in a manner reminiscent of an "Aha!" experience.

The second refinement concerns the potential for multistability in a psychological system (Vallacher and Nowak, 2007). As a system's elements become organized with respect to one coherent state (attractor), the elements that are excluded may form an alternative attractor that can compete for prepotence with the original attractor. When a person develops a highly favorable judgment of someone, for example, inconsistent (i.e., unflattering) information about him or her tends to be discounted. If enough elements of information undergo this fate, they may become organized into an alternative perspective on the target person. If conditions change (e.g., the other person finally goes too far), the judgment system could show a catastrophic shift to the previously latent attractor. The idealized assessment, in other words, could transform into a negative view without going through intermediate steps of disinterest or mild disapproval.

With respect to action, the potential for multistability suggests that although a high-level identity resists change, at some threshold of inconsistent information, the person may suddenly embrace a wholly different high-level identity that has formed by virtue of self-organization among elements that had been discounted in service of maintaining the original identity. A person who stubbornly sees his or her critical comments as constructive despite being told otherwise, for example, might suddenly recognize this behavior as mean-spirited.

The potential for self-organization and multistability have been invoked to understand the nature of social conflicts that have become protracted to the point of seeming intractability, and to suggest new means of resolving such conflicts (e.g., Coleman et al., 2007; Vallacher et al., 2010). When a

conflict develops, the opposing parties each experience a press for integrative understanding that can provide a coherent and stable platform for action. So although the parties may have a wealth of specific knowledge regarding one another, their respective judgments lose complexity – the separate elements of information become linked by positive feedback loops and take on the same (e.g., negative) higher-level meaning. The resultant coherent state functions as an attractor that incorporates new information and resists external forces that threaten to undermine it.

Some conflict-relevant information, though, cannot be interpreted in line with the attractor. The other party may act in an unambiguously positive manner, for example, or previous positive acts by the party may be made salient in memory. Instances of inconsistent information may be discounted or suppressed when first encountered, but over time they may provide the seeds for an alternative attractor associated with positive thoughts and action possibilities. If conditions should change and promote 'ripeness' for peace, there may be a sudden and dramatic change to this latent attractor. The potential for sudden transitions in the relations between groups mired in conflict has counter-intuitive implications for conflict resolution. Rather than addressing the issues that launched the conflict, a more effective strategy is to create the basis for an alternative way of thinking and behaving that is likely to be dismissed in the short run but which creates an alternative coherent state that can become manifest in the long run.

THE METATHEORY

At the most basic level, action identification theory is a set of principles concerning the representation and control of action. The principles capture the conflicting forces that interact to promote a particular form of understanding in the face of a multitude of equally plausible identities for one's actions. This basic identity for the theory gives rise to a number of implications that expand the possible ways in which the theory can be seen. The interplay of the theory's principles is manifest in several notable phenomena, including emotion, stability versus change in self-concept, social judgment, social influence, and individual variation in the mind–action relationship. Which of these aspects of the theory are prepotent depends on the social context surrounding the lay person and the research agenda of the psychologist.

At a yet higher level of understanding, action identification theory can be looked upon as a basic dynamic for mind and action that defines human experience. The theory captures the interplay between the often-competing concerns with comprehensive understanding and effective action that underlies personal functioning across social contexts. Because life itself is dynamic, this interplay is iterated continuously on different (embedded) timescales, ensuring complexity and growth as people go about their daily lives. Action identification, in this light, is a specific, lower-level manifestation of a pervasive dynamic that coordinates the interplay between mind and reality in people's lives. Our goal in this chapter was to illustrate this dynamic. Of course, we were also focused on keystrokes and coming up with a concluding thought. We just did both.

NOTES

1 The results are also consistent with research on intergroup biases in the language used to describe action (Maass et al., 1995). People describe the positive behaviors of ingroup members at more abstract levels than they do the positive behaviors of outgroup members, but describe the negative behaviors of outgroup members at more abstract levels than they do the negative behaviors of ingroup behaviors. This resemblance should be viewed cautiously, though, because identification levels center on means–ends relations, not on levels of abstraction per se. For example, "pushing a button" is higher-level than "moving a finger" by virtue of the *by*

relation, but the former does not seem to be all that more abstract than the latter.

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