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Developing Reversal Theory: Some Suggestions for Future Research

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Reversal theory has generated research in many different areas of psychology, but in much of this research, the theory has been a tool rather than the topic of the research. The central theme of this paper is the need for greater attention to fundamental research to test the theory itself. In particular, it is argued that there is need for research on the reversal process (and especially on the causes of reversal including frustration and satiation), on motivational states (including behavioral indeterminacy), personality dynamics (including reversibility), and psychodiversity (including microclimate). All these areas, and others, are crying out for research, as is the need to study all four pairs of states and not just the telic-paratelic pair. Reversal theory can also be seen as a representative of the paradigm of "structural phenomenology." As an exemplar of this paradigm, reversal theory has much to offer psychology beyond its status as a theory of motivation, emotion and personality.

Keywords: metamotivation, parapathic emotion, reversal theory, reversibility, structural phenomenology

One of the great attractions of reversal theory is that it provides a unitary way of approaching motivation, emotion and personality, showing how the same basic processes work themselves out in seemingly endless variations. This width is a great strength in comparison with other more ad hoc theories in each area, and provides an unusually integrative approach to psychology.

Consider some of the many different specific topics that have been addressed by, and integrated into, the theory. These include (in no special order): stress, addiction, anxiety, depression, juvenile delinquency, hooliganism, personality disorder, boredom, gambling, crime, violence, leadership, teamwork, creativity, risk-taking, teaching, dieting, humor, love, aesthetics, design, play, sport, exercise, advertising, corporate culture, consumer behavior, hotel management, sexual behavior, religious faith, ritual, spying, marital relations, and military combat. Some of these topics, of course, have attracted considerably more reversal theory attention than others, especially sport in its various aspects, stress and health, and addiction. Also some of the research has been more scholarly and conceptual than empirical. But however one looks at it, and taken overall, this is an impressive list.

All the areas of research just cited involve what might call "topic-centered research." This is research in which the primary interest is in the topic itself. It contrasts with "theory-centered research," where the primary interest is in the theory and its development. Theory-centered research is research that tests a theory, topic-centered research is about using a theory as a tool to investigate phenomena of interest beyond the theory itself. Of course, often a particular piece of research will be of both kinds: it will test the theory while applying it to some particular topic. But more often than not it is possible to see where the priority lies as between these two orientations.

What will be suggested in this paper is that we need to pay more attention than we have done to theory-centered research – to look more directly and critically at reversal theory itself.

Of course, both kinds of research are needed in science and they are mutually supportive. On the one hand, improving a theory makes it more useful in topic-centered research. On the other, the pragmatic success of a theory in helping to answer specific questions provides indirect support for the efficacy of the theory itself (a view which the pragmatic philosophy of William James, 1907, would support). This is what appears to have happened in the reversal theory case: empirical research has provided interesting and coherent data that has helped to increase confidence in the theory. This is particularly true of the substantial body of topic-oriented work developed by Kerr and his colleagues on various aspects of sport (e.g., Kerr, 1997).

Something similar appears to have happened with practical applications of the theory to "real life" problems. The apparent success of the theory when it is used in practice in such areas as management consultancy, athletic coaching, marital counseling, and addiction therapy, argues in the same direction. (It would, though, be good to have more follow-up data for such practical applications, even though this is often

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difficult to obtain in practice.)

None of this is to diminish the importance of topic-centered research in reversal theory, and it is to be hoped that researchers will continue to use the theory creatively in studying topics that are intrinsically interesting and challenging, or that promise to be genuinely helpful in relation to real life problems and issues. Rather it is to say that we need to balance this topic-oriented research with research that is more theory oriented and, in this sense, more fundamental. We therefore need more direct testing of the "core structure" of the theory (Apter, 2001a). This paper will therefore not be so much a celebration of what the theory has achieved, as a discussion of where we need to go in future research on the basic concepts. These needs for research will be organized into three main areas: The reversal process, motivational states, and personality dynamics.

The Reversal Process

Reversal between motivational states is at the heart of reversal theory, and the basis of the reversal theory opposition to trait theory. It is why the theory bears the name that it does. So there could be no more crucial topic for theory-driven research. There has indeed been substantial empirical research here (see review in Apter & Heskin, 2001), and this research has in general been supportive. Unfortunately, research on reversals has so far focused mainly on the telic-paratelic pair, and research on the other three pairs has lagged behind. This means that more research is needed on the other three pairs of motivational states. In other words, we should ask ourselves whether things do indeed work in essentially the same way across all four pairs of states, with reversal being a discontinuous jump between states induced by situation-change, frustration or satiation.

Satiation

The case of satiation is particularly interesting since it relates to what differentiates reversal theory not only from trait theory but from situational theories of personality. Like reversal theory, situational theories accept that people can differ from themselves over time. But these theories are not as radical as reversal theory since they suppose that the individual will react in the same way to the same situation every time it occurs. For reversal theory, psychological change is not limited in this way, and the idea of satiation is at the heart of the notion that people are inherently inconsistent, changeable and even unstable.

The research by Lafreniere, Cowles & Apter (1988) is theoretically of particular significance here, because it actually demonstrates satiation occurring. It does so, though, only in connection with the telic and paratelic states. Clearly what is needed is research on satiation in the other three pairs of states. This research could use exactly the same methodology as that of Lafreniere et al., in which alternative materials, representing opposite motivational states, are available for an extended period to the participant, so that they can spend as much time as they want using each set of materials, with their choices being tracked over time.

There is another issue in relation to satiation. The way that satiation has been defined (Apter, 2001a) is as a process that takes its own course, leading eventually to a reversal in the absence of other causes such as situation change. An often used metaphor for this has been that of sleeping and waking. If one is asleep, eventually one will wake up, unless one has already been woken up by some environmental event. Likewise, when one has been awake for long enough one will go back to sleep. The idea is that there is a basic alternation with its own rhythm, even if this can get overridden. There is, however, an additional way of thinking about satiation. This is not so much about "time passed" as about satisfaction. The idea here is that one can only take a certain amount of pleasure before satiety occurs, leading to reversal. This is not a view that has been suggested so far in print. However, should it be supported by data it could easily be incorporated in reversal theory. It is in any case an idea that should be tested and that would allow us to explain why happiness is so ephemeral. To avoid confusion we should perhaps give it a different name from satiation, such as "plenitude."

Frustration

Like satiation, the evidence for frustration as a trigger for reversal is limited – limited in fact to one notable experiment by Barr, McDermott & Evans (1993). In this study participants working in groups were observed to reverse when faced with an extremely difficult problem that they were unable to solve, and this worked in both directions. If they started in the telic state they reversed to the paratelic state. If they started in the paratelic state they reversed to the telic state. Again however, as with satiation, the evidence relates to only one domain, and the effect of frustration in the other three domains is crying out to be tested. And again, as with satiation, there are two possible kinds of frustration. The first is frustration in achieving the satisfactions that are desired in a state, such as love in the sympathy state, or duty in the conforming state. The second is frustration in completing a task. The former is the current definition in reversal theory (Apter, 2001a), but the second is closer to what seems to be meant by frustration in the study by Barr et al. The two versions of frustration may overlap to some degree, but their effects need to be tested separately (and of course over all four pairs of states). Again, the second kind of frustration could also be incorporated in reversal theory if it was supported. But a different description might be needed for it, such as "task failure."

Situation

The third and main category of reversal triggers is that of contingent reversals – reversals due to situation change or the occurrence of some event. There is no lack of evidence for this kind of reversal, and so there is less urgency for research to demonstrate such reversals than there is for research on frustration and satiation. We should remember that, since reversal theory is phenomenological, by "situation" is meant the situation as seen subjectively by the person. So this category will include more than just externally observable changes in the environment. It will also include changes in memories, imagination, problem-solving, daydreaming, and so on – what a person attends to, or chooses to think about, constitutes an effective "situation" in the sense intended here.

Controlling Reversals

There is a major point here for future research. This is the need to move from identifying and measuring states, and the occurrence of reversals, to being able to control them for practical as well as research purposes.

This in turn could help people to get into control of their own reversals. The fact that people can subjectively change their environments in the ways just indicated does give them a handle on reversal. Resulting reversals may not be completely voluntary, but subjective processes bring some measure of indirect self-control. This ability strongly needs to be researched because it opens up new avenues of research and effective practice. Thus, rather than actually changing situations to induce reversals, people might be able to imagine themselves in different settings that induce different states, for example at home with their children to induce the sympathy state, on the golf course to induce the paratelic state, and so on. An interesting variant on this, and one that badly needs research, would be self-conditioning. The individual would learn to associate different motivational states with different objects or minor ritual actions, so that if he wanted to move to a given state, he would just bring the relevant object to mind, or rehearse the associated action.

Another avenue of research here would be to study what techniques people actually do use in everyday life to induce, or inhibit reversals in themselves and others. Studying how people manipulate states in others could involve studying, in everyday situations, teachers, counselors, coaches, salesmen, and managers, among others who need to influence other people as part of their professions. In doing this we would be practicing a type of ethology – the study of what we are interested in, in its natural habitat. This would be a kind of "mental ethology" and would help to establish the ecological validity of the reversal concept.

Motivational States

Understanding the nature of motivational states, or more correctly "metamotivational" states (how specific motivations are experienced), is obviously also critical to the development of reversal theory, and many areas of research suggest themselves.

Behavioral Indeterminacy

It is a fundamental proposition of reversal theory that the same situation can be experienced in different ways at different times (because internal contexts change as well as external, some of these being due, as noted above, to satiation). This, as we have seen, is what differentiates the theory from situational theories of personality which posit that people change, but only because the external situations they find themselves in change. An implication of this internal changeability, from the reversal theory perspective, is that the researcher cannot tell for sure which motivational states someone is in from the researcher's knowledge alone of the situation in which subjects find themselves. This is what is known in the theory as "behavioral indeterminacy" (Apter, 1982). Research here would need to demonstrate this basic concept: that people can experience the same situation differently on different occasions because they frame it differently, for example seeing it as serious on one occasion and playful on another. By definition, this could not be decided by external observation, but would need the subject to respond to suitable questions.

Structure of the Emotions

There is also a set of questions concerning the reversal theory account of the structure of the emotions. For example, is pride indeed the emotion felt in the mastery and self-oriented state combination when high felt gain is also experienced? Is anger the emotion felt in the negativistic and telic state combination when high felt arousal is also experienced? A related question is: Do reversals result in changes in emotion of the kind predicted by reversal theory? There is research that bears on this for the somatic emotions, especially anxiety-excitement reversals (see review in Apter & Heskin, 2001), but very little so far that relates to the transactional emotions. (It will be recalled that somatic emotions are those that involve different ways of experiencing felt arousal, and transactional emotions are those that involve different ways of experiencing "felt transactional outcome," i.e. degrees of gain or loss. An example of a somatic emotion would be anxiety, and of a transactional emotion would be pride.)

It is also essential that, sooner or later, we study the actual shape of the cross-over "butterfly curves" that relate felt arousal to hedonic tone, and do likewise for transactional outcome. For example, in the arousal/hedonic tone space, is the telic curve that goes from relaxation (pleasant low arousal)

to anxiety (unpleasant high arousal) a straight line, or is it perhaps convex or concave? We could ask the same question for the paratelic curve that crosses over it and that goes from boredom (unpleasant low arousal) to excitement (pleasant high arousal). And in each case we could ask: what is the gradient of the curve involved? In general we can ask: Do these curves differ across states? Do they differ across individuals? (The implications of some different shapes and gradients are discussed in Apter, 1982.)

Parapathic Emotions

A concept that marks a sharp contrast between reversal theory and other extant theories of emotion is that of parapathic emotions. Parapathic emotions are high arousal emotions that are supposedly unpleasant but that, if experienced in the paratelic state, are highly pleasant because of their high arousal (they are a kind of excitement). The existence of such emotions, not recognized in other theories, needs to be demonstrated experimentally – although they are evident from everyday life, for example in our enjoyment of movies: of horror in horror films, tension in thrillers, grief in tragedies, and so on.

Performance Characteristics

Performance characteristics of the different states might be documented: reaction time, attention span, memory, sensitivity to pain, vigilance, habituation, discursive style, etc. If such differences do indeed exist, it would then be possible to advise on appropriate states for different tasks or problems. Reversal theory has no special predictions here, but if it turned out that there were certain associations – for example if pain is felt less intensely in some states than others - then this would be extremely useful to know when deciding between various kinds of intervention.

Physiology and Neuropsychology

On the physiological side, Svebak (reviewed by Svebak & Lewis, 2001) established relationships between the telic and paratelic states on the one hand, and a range of physiological characteristics, such as cardiovascular reactivity and electromyographic gradients, on the other. But neuroimaging has now reached the point of sophistication at which it would be possible to ask whether different locations in the brain might be implicated in different motivational states. In particular, functional magnetic resonance imaging (fMRI) could be brought to bear, and would help us to test if a meaningful mapping could be established. Although motivational states are subjective, a close correspondence between reported states and objectively identified brain locations would help to establish the "reality" of these states. Even more to the point, it would be possible to trace the kinds of changes involved when reversals occur.

Psychodiversity

Psychodiversity, or "motivational richness," is emerging as a key concept in the application of reversal theory. By "psychodiversity" is meant, by analogy with biodiversity, the range of different possibilities that exist in a psychological system (e.g. a person, a couple, a family, a team, an organization, a culture). Also by analogy with biodiversity, a psychological system that is psychodiverse, using each of the eight states where appropriate, should have a better chance of coping with a changing environment than one that is not. This idea has been used in personal development, team building, and other applied areas. But there is a fundamental question here, which is: Is psychodiversity, in fact, really a benefit? This is an important research question for reversal theory in the future.

Cognitive Synergy

To be complete it is necessary to draw attention to one other area of basic theory: Cognitive synergy. This is the experience of identities that embody simultaneous contradictory characteristics, like a man dressed as a woman, or a toy sword, or a poetic metaphor. Reversal theory argues that cognitive synergies are enjoyable in the paratelic state and disliked in the telic state, so that this marks a further characteristic that distinguishes between states. This has been the Cinderella of reversal theory research and the concept is wide open for future investigation. Reversal theory has also developed some models of humor and of aesthetic experience, involving the synergy concept, which need more testing (e.g. Apter & Desselles, 2012).

Personality Dynamics

Nearly all the personality research generated by the theory so far has focused on dominance, the tendency for an individual to be in one motivational state or the other within each pair of states over time. The advantage for researchers is that dominance can be treated as if it were a conventional trait. This means that we can make use of standard psychometric tests that are fully legitimate in the field, such as factor analysis. The disadvantage is that these psychometric tests tend to miss the spirit of reversal theory with its emphasis on change, change being seen in reversal theory as message rather than noise.

To be true to reversal theory, therefore, we shall need to track people over time rather than give one-off tests. This will require much more attention to state measures that can be repeated. It may also require the use of state balance measures, which have received comparatively little attention at present. By "state balance" is meant dominance in a particular repeated situation (e.g., at work, while taking exercise, at church), or on a particular occasion, such as the current day. State balance measures therefore would be neither state

measures (which are about particular moments) nor dominance measures (which would be general), but fall between the two.

New reversal theory state measures are likely to depend on the developing technology of portable digital recording instruments that can systematically record motivational states, and other relevant variables, over time. New technology will be particularly useful to reversal theory in this area. O'Connell and her colleagues laid the foundations of this innovative approach (O'Connell, Gerkovich, Bott, Cook, & Shiffman, 2000) by getting participants to use Palm Pilots® (a hand-held personal computer which was a precursor of today's smartphones) in their research on smoking cessation. In this research, participants in their everyday lives regularly responded to prompts by making ratings concerning their motivational states, and other matters, on these portable devices. These pioneering methods were further developed by Young, Desselles, Lee, and Apter (2005) and Murphy and Desselles (2011). All this aligns reversal theory with the current development of what is called "the quantified self," which is a movement to incorporate technology into tracking people in the course of their daily lives, regularly or continuously measuring such things as sleep cycles, blood pressure and body mass (*The Economist*, 2012). Clearly such approaches, when involving real time tracking of reversal theory variables, are likely to become a standard and desirable feature of reversal theory research in the future.

All this opens up new vistas for research in personality. Here are six examples of reversal theory concepts that call for research and that pose questions that have never been asked before.

Reversibility

How easily, and therefore frequently, do different people reverse? This question in turn opens up a host of new questions. Is such reversibility domain specific (i.e. could we have a reversibility profile for an individual, with different degrees of reversibility across different pairs of states)? Does it relate independently to the three basic causes of reversal that have been suggested, meaning that some people are particularly sensitive to situation change, some to frustration and some to satiation? Does very high or low reversibility reflect different kinds of personality disorder? Does reversibility change over a lifetime? Does it respond to stress or trauma? Do people (e.g. married couples) get on better with each other if they have similar levels of reversibility? Are people with high levels of reversibility more creative than others?

State Combination

Do certain states tend to go with other states in a given person? Do typical arrays (combinations of four active states) tend to turn up regularly in a particular individual? If certain arrays tend to turn up across people, do they relate to anything specific: age, gender, culture, class, or type of work?

Matching

How good is a person at matching states with what the environment affords? This is a key aspect of "motivational intelligence." Unfortunately, it is awkward to measure because it is often difficult to say with any degree of objectivity what a particular environment does offer by way of satisfaction, or threaten by way of dissatisfaction, in relation to different states. On the other hand, clearly there are times and places where people feel "out of kilter" with their environment, and other times when things "come together," and in some sense resonate.

Trajectories

Are particular people characterized by repeating sequences of active states? For example, after overcoming some important threat (telic mastery) a particular person might tend be self-indulgent and reward himself with something (a cigarette or a drink for example) in the self-oriented and sympathy states. This may be typically followed by feeling guilty (conforming), followed by being angry that he should feel guilty (negativistic). If this sequence is regularly repeated we might see it as a typical trajectory.

Hierarchy

Does a person tend to use one state in the service of another state? If so, which ones? This is a development of the state combination question listed above. For example, a given individual in the paratelic state might tend to use the mastery state to get immediate pleasure (for instance, building things, or playing competitive games), while another may tend to have fun by being disruptive, in this way using the rebellious state. Yet another might look to join teams in the paratelic state, thus obtaining service from the other-oriented state. Here we have the example of three different motivational states that the paratelic state might call on in different people.

Vicariance

As defined by Loonis (viz. Loonis, Apter & Sztulman, 2000), vicariance is the ease with which a person can turn, within an ongoing motivational state, from one activity to another in the attempt to gain satisfaction in that state. (Note that this is different from the use of the word vicariance in biology.) Vicariance is a kind of flexibility, but the flexibility is within states rather than across states (which would be reversibility). The evidence seems to show that some people – addicts in particular – are less vicariant than others, so that they are stuck with a particular unchanging way of attempting to gain satisfaction that they have difficulty in varying

even when it is not working for them. It would be interesting to know if people who are flexible in the sense of being highly reversible are also flexible in the sense of displaying high vicariance.

Microclimate

A microclimate (Carter & Kourdi, 2003) is what it is like to be "around someone," – in other words, which motivational states that person tends to induce in those with whom they come in contact. Leaders will normally bear a microclimate around themselves so that those who interact with them will get pulled into certain states rather than others. Thus a particular leader might be someone who sees the big picture, and reminds everyone of it, in this way tending to induce the serious state. Another leader, through his enthusiasm and good-natured humor, might tend to induce the paratelic state. This would be an interesting area for individual difference research in general as well as in studies of leadership.

All of these aspects of personality are difficult to study, and will require ingenuity on the part of researchers if progress is to be made in developing the new methodologies that will be needed. If these aspects could be shown to be amenable to psychometric measurement, however, this could provide a breakthrough in personality research.

General Issues

This paper has argued for the need for more research on fundamental concepts in reversal theory. There are, however, some other developments that would be highly desirable and that it is worth drawing attention to here.

Replication

It would be useful to have more replication studies, especially of key pieces of research such as, to name just three from many dozens that deserve the compliment of replication: Rod Martin's work on stress (Martin, Kuiper, Olinger, & Dobbin,1987), Svebak's papers on psychophysiology (e.g., Svebak & Murgatroyd, 1985), and Pilon's study of arousal (Pilon, 1998). Replications that supported such previous research would make it more difficult for researchers outside reversal theory to disregard reversal theory findings. Exemplary in this respect is the work of O'Connell and her colleagues on smoking cessation (see review in O'Connell & Cook, 2001). These researchers produced a series of papers which supported each other in developing a common theme and involved continuing elements of replication.

New Methods

Reversal theory researchers may need to be open to using, or even creating, new methods for collecting data to go along with the novel ideas of the theory. Scenarios, guided daydreams, self-observation, diaries, day reconstruction, coding – these and others may all have their place in future reversal theory research. The more that evidence of different kinds can be brought to bear on reversal theory, the stronger the theory will be.

Simple Exercises

It would be useful to develop some simple exercises that reliably demonstrate to people, through their own experience, the different motivational states. This would be a resource for use in teaching the theory, in workshops, in counseling, and elsewhere. Tucker (2012) has demonstrated one way of doing this by showing videos from advertisements and other sources that appeal to different states. C. Lunacek (personal communication, June 6, 2011) has also developed, in France, some simple exercises that can be performed in groups and that provide experience of different states and their effects.

This raises an interesting issue. The Gestalt psychologists in the 1930s demonstrated their ideas directly by showing them in the form of drawings and pictures. For example, anyone could understand the concepts of proximity, similarity, and figure-ground reversal by looking at the classic diagrams presented by Koffka (1935) to display these perceptual processes. Objective experimental demonstration of these concepts was therefore, in a sense, not really necessary. Anyone could see for themselves, immediately and undeniably, that what was being claimed was veridical. Is this a valid form of empirical testing, and would it be acceptable in contemporary psychology?

The Wider Perspective: Paradigms

A theory consists of a set of coordinated answers to a number of related questions, and, to be scientific, these answers must in principle be falsifiable in the light of research (Popper, 1959). Indeed, reversal theory has been presented as a set of propositions – or predictions –precisely in order to facilitate the application of the falsifiability criterion (Apter, 2001a). Many of these propositions involve terms that need to be operationalized. This means that (following Bridgman, 1927), they should be put in the form of concrete actions that the experimenter would need to take to test them.

However, it is possible to go beyond this and to see reversal theory as not just a theory but also as representative of a scientific paradigm. A paradigm is not so much a set of proposed answers to questions – which is what a theory is. Rather it is the choice of what questions to ask, what the legitimate means are of answering them, and what constitutes an answer (Kuhn, 1962). In other words, paradigms put theories in a wider context, asking what each theory offers and why attention should be paid to it. Unlike a theory, a paradigm cannot be falsified, but it can be evaluated in terms

of various criteria. These might include comprehensiveness, credibility, coherence, parsimony, fruitfulness, practicality, and interestingness. Indeed, this is how paradigms are evaluated in practice and what leads to some paradigms being pursued eagerly and others eventually dropping by the wayside, along with the theories that exemplify them. In this respect, scientists vote with their feet. Paradigms, however, cannot be directly falsified, because they are like axioms – the starting points for research.

In the case of reversal theory, the underlying paradigm involves four axioms (Apter, 2001a):

- Conscious experience has structure
- This structure is based on motivation
- This structure changes in systematic ways over time
- Certain fundamental aspects of this structure apply to all human beings.

Taken together, these starting assumptions designate a paradigm that has been named "structural phenomenology" (Apter, 1981). In these terms, reversal theory would be an example of a structural phenomenological theory. It would consequently be possible to envisage other structural phenomenological theories than reversal theory. (In the same way there are many different theories within learning theory, many competing explanations within psychoanalysis.) These other structural phenomenological theories would make the same basic starting assumptions – that conscious experience has structure, and so on – but develop a different set of predictions.

The structural phenomenological paradigm has much to recommend it, and it could be said to provide at least the following advantages to psychology. It offers psychology a way back to its origins as the study of mental life, rather than allowing it to be reduced to social/constructionist psychology on the one hand or genetic/neurological psychology on the other. Rather it shows how subjective experience can be studied afresh without having to make the mistakes of the early introspectionists, such as their exclusion of meaning from subjects' reports. Secondly, it emphasizes the importance of motivation and emotion, implying that there are limitations to the cognitive approach that has overwhelmed psychology in recent times. Thirdly, it provides new insights by accepting the inconsistency and even self-contradictions that people display and that make trait theories of personality less than fully credible. Fourthly, it provides the possibility of a structured account of psychiatric conditions that go beyond the dimensions and lists that constitute the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) of the American Psychiatric Association (all versions). Fifthly, especially in the form of reversal theory, it provides a more effective approach to helping people to change than approaches that start by saying, "This is how you are." Instead reversal theory says, "There are many different ways you could be, let's help you to have access to all of them. Let's make life full of possibilities again."

Conclusions

This paper was not intended to be a complete compendium of basic research questions in reversal theory. The main intention was to draw attention to some of the most urgently needed areas of research. It is undoubtedly possible to identify further basic research questions, or prioritize those that have been suggested here in various different orders. But the underlying point is more important than the specifics, and this is the continuing need for more research on the fundamental concepts of the theory. Among other things, this will mean devoting more effort to the study of motivational states rather than dominances, of satiation and frustration rather than contingency as causes of reversal, and of the transactional rather than the somatic states. All this is needed if the theory is to have a chance of fulfilling its full potential.

The birth of the *Journal of Motivation, Emotion, and Personality* is highly welcome in this respect because it will provide researchers with a platform not only for presenting findings on the rich range of important topics to which the theory continues to be applied, but also on reversal theory itself. In this way, it will help to initiate a new phase in the development of the theory.

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