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AUTHOR'S RESPONSE

Another Look at I–D Compensation Theory: Addressing Some Concerns and Misconceptions

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In this reply, I address four general issues raised in the commentaries. Specifically, I attempt to (a) clarify the nature of immediate-return needs, (b) provide more detail on the mechanisms through which frustration of immediate-return needs makes one susceptible to the effects of social motives, (c) address in more detail the relation between I–D compensation theory and other theoretical conceptualizations, and (d) indicate the extent to which my distinction between immediate- and delayed-returned societies was accurate. I begin, however, by briefly describing the development of I–D compensation theory. In doing so, I hope to make the theory, as well as its connection to the associated literature (e.g., hunter–gatherers), clearer.

The Context of Discovery

A few years ago, I began discussing terror management theory in my social psychology classes. Although I found the theory to be provocative, I did not find it or its related studies to be particularly convincing (for related views, see Buss, 1997; Leary & Schreindorfer, 1997; Paulhus & Trapnell, 1997). One aspect of the theory I had difficulty with was its assumption that concern with self-aggrandizement and perpetuation of the self after death was a universal human trait. This claim seemed to fly in the face of what I knew about the so-called eastern philosophies, especially Zen (see Kramer, 1988; Loy, 1990). From a Zen perspective, concern with the self is a hindrance to enlightenment, and it is lack of concern with the self that is sought and practiced. This philosophy was captured succinctly by Bhikkhu (1994) when he noted that from a Zen perspective

> There must be an absolute, unshakable clear awareness that there is nothing which is self and nothing that we need to worry about as possibly being self; that there is nothing which belongs to self and nothing to wonder about, to worry over, to doubt, or to wait for, as being ours. When this ego-grasping consciousness is gone, … there is no self in the present and no basis for anxiety regarding the self in the present, past, or future. (pp. 45–46)

So, quite apart from fostering concern over self-aggrandizement and self-perpetuation, the Zen perspective suggests that we should eliminate our self concerns. Or, more accurately, it suggests that we should realize that our self is an illusion to begin with and that there is already no self to worry about or to perpetuate into the future. This view of the self is diametrically opposed to the terror management view (Loy, 1990).

I considered this possibility in the context of a second difficulty I had with terror management theory—namely, the seeming lack of consistency between the theory's empirical results and the reactions that individuals in the real world display after having had a close brush with death (e.g., Ring, 1984; Taylor, 1983). In the real world, individuals do not display the defensiveness and increased concern with their worldview suggested in so many terror management studies. As noted in the target article, the aftereffects of a close encounter with death include greater tolerance for views other than one's own; less concern with impressing others; less concern with materialism, fame, and money; and a greater appreciation for the ordinary things of life.

So, there were two groups of individuals who did not fit easily with the hypothesis that concern with self-aggrandizement and self-perpetuation is manifested in some form by every individual who understands fully that he or she will die. My awareness of these two groups prompted me to search the cultural anthropology literature to see if there were other groups that did not fit easily with the hypothesis that concern with self-aggrandizement and perpetuation of the self after death were universal human traits. It was in this search that I came on the immediate-return societies discussed in the target article. As noted in that article, individuals living in immediate-return societies

tend to live in the present, have strong sanctions against self-aggrandizement, and tend not to deal with death by speculating on perpetuation of the self after death.

So, I now had three groups that did not seem to manifest great concern over self-aggrandizement and perpetuation of the self after death. Because these groups were very different from one another, the next step was to determine what they had in common that distinguished them from groups that did display a high concern with self-aggrandizement and self-perpetuation. What jumped out at me was focus on the temporal present. Consider how this focus is reflected in the Zen perspective:

> We think we are here to deal with "more important" issues, such as our problems with our partner, our jobs, our health, and the like. We don't want to bother with the "little" things, like how we hold our chopsticks, or where we place our spoon. Yet these acts are the stuff of our life, moment to moment. It's not a question of importance; it's a question of paying attention, being aware. Why? Because every moment in life is absolute in itself. That's all there is. (Beck, 1995, p. 168)

We hear similar sentiments from individuals who have had a close brush with death. One near death survivor reported, "I don't feel time like I felt time before … . What everyone talks about heaven being, is right here and now" (Ring, 1984, p. 109). Another stated, "I never take one minute of my day for granted" (Ring, 1984, p. 99). A focus on the present is also typical of individuals living in immediate-return societies. The following description by Turnbull (1983) is representative:

> I had always been aware of the Mbuti focus on the present, in time and space, but it had never been expressed in my hearing other than in comments such as, "If it is not here and now what does it matter where (or when) it is?" Such a comment would have been made in dismissing some villager demand relayed to a forest camp, for as far as the Mbuti are concerned when in the forest, the villagers simply do not exist (until they want them to). Or such a comment could be used to excuse oneself for not having done something that needed to be done the day before (like repair a hole in the hunting net) or for having let an antelope escape during the hunt that very morning. The discussion would then get on to the more important topic of what to do about the hole in the net now, or how to deal with the immediate shortage of meat. (pp. 122–123)

After considering that a focus on the temporal present might be an important factor in influencing the degree to which individuals experience concern over self-aggrandizement and perpetuation of the self after death, I had to figure out why this might be the case. The answer came from research on goal progress (e.g., Csikszentmihalyi, 1990; Martin & Tesser, 1996; Wicklund, 1986). Generally speaking, this research showed that being present focused and focusing on one's self are antithetical. This seems to be the case, at least in part, because being present focused entails having more proximate goals (e.g., finishing a paper vs. getting the paper published). The more proximate an individual's goals, the more likely it is that the individual will receive relatively immediate feedback regarding progress toward those goals (Emmons, 1992). If the feedback indicates successful approach to the goal, then the individual can maintain a present focus, and he or she will experience little rumination, negative affect, and objective self-awareness (Carver & Scheier, 1990; Csikszentmihalyi, 1990; Martin & Tesser, 1996; Wicklund, 1986). On the other hand, if the feedback indicates a lack of approach, then the present-focused individual may be able to switch relatively quickly to an alternate goal with little loss of investment. In this way, the rumination, negative affect, and objective self-awareness that present-focused individuals experience will be relatively short-lived.

When individuals are oriented toward goals in the distant future (e.g., getting the paper published vs. finishing writing the paper), however, feedback regarding progress may not occur for some time after the initial effort. As a result, there may be longer periods of uncertainty and unrewarded effort. Moreover, if the feedback turns out ultimately to be negative, then these individuals have more investment to consider when switching to a new goal. As a result, when individuals focus on the attainment of goals in the distant future, they may tend to experience greater rumination, negative affect, and objective self-awareness.

Based on these kinds of findings, I hypothesized that different temporal foci might influence concerns over self-aggrandizement and perpetuation of the self after death because these foci are associated with different amounts of rumination, negative affect, objective self-awareness, and the like. (This hypothesis is discussed in more detail later in this response.) Next, I inferred that if the self-related effects observed in terror management research could be moderated by the extent to which individuals were present focused, then the same might be true of self-related effects observed in other lines of research (e.g., escape from the self, S.E.M., sociometer). When all of these ideas were taken together, and their implications extracted, the result was I–D compensation theory.

As can be seen, the theory grew out of a consideration of Zen, near death experiences, and cultural differences in the context of terror management theory. It is important to note, however, that the theory now stands or falls on its own. In other words, its future success rests not on Zen, death, or culture, but on how well the theory answers questions such as, Is the theory internally consistent? Is it general? Can it allow us to

make novel predictions? Is it consistent with the relevant facts? To help in answering these questions, I attempt, in the remainder of this response, to clarify aspects of the theory that seemed to cause the most problems to the commentators.

Addressing the Major Concerns of the Commentators

What Are Immediate-Return Needs?

There was some confusion over the meaning of the term *immediate-return needs*. Some contributors took the distinction between immediate-return needs and delayed-return skills to be a distinction between biologically basic needs and loftier, symbolic goals. Wicklund (this issue), for example, concluded that "the theory's domain entails needs, and corresponding goals, close to basic, concrete biological necessities." Similarly, Greenberg (this issue) suggested that "if I am getting my pay monthly but am satisfying my needs for food, warmth, shelter, and stimulation everyday, then I am getting lots of immediate returns for my efforts." This distinction, however, is not what I had in mind. The term refers to *feedback* regarding goal progress. It has nothing to do with the type or content of the goal.

The distinction between type of goal and feedback regarding a goal might be made clearer by using Erber's example of starting a family versus getting a beer. Erber (this issue) noted that with these different goals individuals have "vastly different expectations regarding the speed of the respective returns." I agree. What Erber did not go on to say, however, is that similar psychological mechanisms would be engaged if progress toward either goal fell short of expectations. An individual might expect to receive a beer within 1 min after ordering it, for example. If it has been 5 min, and the individual has no indication that the bartender is returning with the ordered beer, then the individual may begin to worry. By the same token, if a woman does not experience signs of progress (e.g., weight gain, movement in her womb) over the 9 months of her pregnancy, then she may begin to worry. It is the nature of the feedback and not the goal per se that regulates the amount of worrying (see Carver & Scheier, 1990; Csikszentmihalyi, 1990; Martin & Tesser, 1996).

A second misconception regarding immediate-return needs is that these needs reflect a motivation to have one's desires satisfied immediately. Eiser (this issue), for example, suggested that "we live in a society that, far from being definable by its emphasis on delayed returns, encourages and legitimates instant gratification." I argued specifically against this interpretation of immediate-return needs in the target article. I stated that "I–D compensation theory is not based on a kind of Freudian pleasure principle. Its postulate that individuals are motivated to receive frequent feedback regarding their goal progress is not synonymous with the postulate that individuals are motivated to obtain immediate gratification of their desires." I then noted that "if individuals obtain the former, then they are less in need of the latter," and I followed that with a discussion of the Frey and Preston (1980) study in which children who received frequent feedback regarding their goal progress were able to delay gratification longer. In short, satisfaction of immediate-return needs actually facilitates attainment of long-range goals (Bandura & Schunk, 1981; Csikszentmihalyi, 1990; Sansone, Weir, Harpster, & Morgan, 1992).

Another concern with the concept of immediate-return needs was raised by Csikszentmihalyi. He asked whether it was necessary to hypothesize a *need* for feedback to account for the effects of feedback. I struggled with this issue for a long time while developing the theory. I was well aware of the conceptual difficulties in hypothesizing needs. I resolved the issue by considering what it is that allows us to infer the existence of a need. Going back to earlier work that grappled with this issue (McDougal, 1923; Tolman, 1932), I assumed that one can infer the existence of a need when behavior possesses the following three qualities: persistence until, equifinality, and docility.

Persistence until refers to the tendency of individuals to engage in attainment-oriented behavior until the need is satisfied. For example, individuals may persist in eating until they are satiated. *Equifinality* refers to the possibility that any number of different activities will allow the individual to attain the same end state. For example, people may reduce their hunger either by eating or by taking a diet pill. *Docility* refers to the tendency of individuals to settle on the easiest, most effective way of satisfying the need. If eating is more effective than taking a diet pill at reducing hunger, then individuals are more likely to eat than take a diet pill when they experience hunger. In my reading of the literature, the behavior of individuals who did not obtain clear feedback regarding their goal progress exhibited all three features. Hence, I felt compelled to refer to a need for feedback regarding one's goal progress.

Motives Versus the Effects of Motives

There was some confusion regarding the connection between being in a dynamic relation with the environment and the general social motives. In Solomon's interpretation, failure to maintain a dynamic relation with the environment led to the evolution of these motives. Specifically, he suggested that the social motives "emerged at a particular moment in evolutionary his-

tory as human beings 'switched' from immediate- to delayed-return cultures." Unfortunately, this is not what I hoped to communicate in the target article. In fact, a strong case can be made that the general social motives (to the extent they have a genetic component) were present in our species at least as far back as 100,000 years ago, and possibly as far back as 300,000 years ago. These dates represent the consensus of recent studies with mitochondrial DNA regarding the date at which modern humans appeared on the scene (Hasegawa, diRienzo, Kocher, & Wilson, 1993; Horai, Hayasaka, Kondo, Tsugane, & Takahata, 1995). Thus, the best current evidence suggests that humans were essentially the same species before the transition to agriculture as they are now. This is what I was referring to in the target article when I suggested that humans had the ability to make the transition between an immediate-return and a delayed-return economy. Our delayed-return abilities were already in place. Without them, we could not have made the transition to a delayed-return lifestyle.

What the shift to a delayed-return lifestyle may have done, however, is change the pressure on the social motives and influence the ability of individuals to balance simultaneously the satisfaction of these motives. If we assume, for example, that individuals have a need for belongingness as well as a need for autonomy (Ryan & Couchman, this issue), then we can see that both motives might have been relatively easy to satisfy in an immediate-return society. In these societies, acceptance is relatively automatic, and there are few hard and fast constraints on individual behavior. In delayed-return societies, by comparison, there are more explicit rules to follow, more differentiated roles to play, and more long-term binding social commitments (Brunton, 1989; Wiessner & Schiefenhoevel, 1996). As a result, it might be trickier for individuals to satisfy their need for belongingness without threatening their need for autonomy, and vice versa. The conflict between these motives could heighten one's concern with them. In short, the transition to a delayed-return culture may have influenced the way in which people dealt with their motives, but it probably had little, if any, effect on the existence of the motives (at least to the extent that these motives have a genetic basis).

Other contributors focused their concerns not on the origins of the general social motives, but on their activation. Leary and Cottrell (this issue), for example, suggested that the general social motives "arise only when immediate-return needs are unfulfilled" (see also Kenrick, this issue). Although I am reluctant to rule out this possibility entirely, this is not what I was suggesting in the target article. The point I had hoped to make was that receipt of feedback that one is approaching one's goals and that his or her efforts will pay off is a *moderator* of one's *susceptibility to the effects* of various social motives. The theory addressed neither the origin of the motives nor the factors that activate the motives. It addresses one (I hope, general) factor that can make individuals more or less susceptible to the effects of the motives. The following analogy might help.

Suppose you have a television on which the picture is not very good. It crosses your mind every once in a while to get a new television, but you have never felt strongly enough about it to do so. Then, the Super Bowl comes on, and your favorite team is playing. Now, for the first time, the poor quality of the picture really becomes an issue. You want to follow the game but you are having trouble doing so. As the game proceeds, however, your team begins to lose by a very large margin. At this point, you lose interest in the game, and you no longer care about the poor quality of the picture on your television.

What we have in this scenario is a preexisting condition (the poor picture on the television) that had few negative implications until a certain time (the Super Bowl) and even then affected you more at some times that at others (depending on your level of involvement in the game). So it is with the social motives. They existed in our species prior to the time they become activated in any given situation for any given individual, and even when activated, the motives exert stronger effects at some times than at others. It is the last proposition with which I–D compensation deals. I–D compensation is a theory of the moderation of the effects of some general social motives.

Getting From Need Frustration to Susceptibility

There were some questions regarding the theoretical mechanisms by which satisfaction of immediate-return needs influences the social motives. Strube, Hanson, and Fargher (this issue), for example, wondered what it is about lack of immediate-return information and increased uncertainty that could heighten susceptibility to the effects of various social motives. Pyszczynski and Goldenberg (this issue) expressed the concern this way: "If social motives do indeed serve important functions, why would they affect behavior only when immediate-return needs are not being met?" As I began formulating an answer to this question, it occurred to me that perhaps it is more accurate to say that frustration of immediate-return needs makes people more susceptible to the effects of the social motives than to say that satisfaction of these needs makes people less susceptible to the effects of the social motives. It is still a relative effect, but the general assumption of I–D compensation theory is really that lack of feedback regarding goal progress induces a psychological state in which the self, negative affect, and concern with one's input–outcome ratio are simultaneously sa-

lient, and it is this state that heightens reactivity to the social motives.

Although the details of the process need to be worked out, I envision a mechanism something like the following. Failure to progress toward one's goals can elicit processes such as rumination (Martin & Tesser, 1996) and the generation of counterfactuals (Taylor, Pham, Rivkin, & Armor, 1998). These processes can be beneficial in allowing individuals to regain progress toward their goals, but this is not always the case. Moreover, even when these processes are beneficial, the benefits may be seen only after an extended period of time. Individuals can get caught up in a ruminative state for months or even years. Perhaps even more important to understanding individuals' susceptibility to the effects of the social motives is the possibility that frustrated goal progress, rumination, and simulation can give rise to other processes that may be problematic.

For example, failure to make adequate progress toward a goal can elicit negative affect (Carver & Scheier, 1990; Csikszentmihalyi, 1990). Not only is this unpleasant in and of itself, but the negative affect can be sustained by the attendant rumination. This is why ruminators tend to experience more prolonged negative affect than nonruminators, even when the two groups experience the same degree of hassle (McIntosh, Harlow, & Martin, 1997). Rumination can also cause individuals to perseverate on their mental simulations. This, in turn, can lead individuals to polarize their evaluations of the simulations (Tesser, 1978). As a result, individuals may evaluate their current life situations as unrealistically better or worse in comparison to the polarized scenarios.

The negative affect induced by a lack of goal progress can also motivate individuals to generate explanations for their undesired situations (Bohner, Bless, Schwarz, & Strack, 1988). These explanations, in turn, may be based on socially derived theories and may not be correct for any given individual in any given situation (Wilson, Hodges, & LaFleur, 1995). These explanations may also be resistant to disconfirmation (Anderson, Lepper, & Ross, 1980), and they may lead individuals to perceive covariations where none exist and to miss them where they do exist (Chapman & Chapman, 1969). As a result, individuals may lead themselves farther and farther away from a dynamic relation with the environment. Finally, lack of goal progress can heighten objective self-awareness (Csikszentmihalyi, 1990; Wicklund, 1986), and it can lead individuals to attempt to generate compensation for their noncontingent efforts (Seta, Hundt, & Seta, 1995).

In short, as individuals move out of a dynamic relation with the environment, processes come into play, the function of which are to facilitate a return to successful progress toward the goal. Although these processes can be beneficial, they may also induce a state of mind in which factors such as objective self-awareness, negative affect, and a motive to explain and compensate for the lack of fit between efforts and outcomes are simultaneously present. According to I–D compensation theory, it is this combination of affective, cognitive, and motivational states that makes individuals more reactive to issues involving self-aggrandizement, social exclusion, perpetuation after death, and the like.

Relation to Other Theories

Given that the processes spelled out in I–D compensation theory were hypothesized to moderate the effects of a variety of social psychological motives, it is not surprising that a number of contributors asked questions about the relation between I–D compensation theory and other theoretical conceptualizations. I next discuss the connection between I–D compensation and terror management theory, social exclusion theory, self-enhancement theories, and intrinsic motivation.

Terror management. It was not my intention to present I–D compensation theory as an alternative to terror management theory. My intention was to suggest a general factor that might moderate at least some mortality salience effects. Nowhere in the target article did I suggest that "the terror management findings … are generally compatible with [I–D compensation] theory" (Greenberg, this issue). In fact, what I suggested was that my studies "replicate and extend earlier terror management research." I even stated that there is "no reason to doubt that individuals are often highly motivated … to buffer themselves from the fear of death." Finally, as Strube et al. (this issue) noted, the studies I discussed in the target article are not even designed in such a way to support one theory over the other. I agree.

Of course, it is possible that at some point in the future, after much additional research, we will find that I–D compensation processes do in fact explain all of the terror management effects, or that terror management theory explains all of the I–D compensation effects. If and when one of these possibilities occurs, we will deal with it. In the meantime, I wish only to suggest that future studies using the mortality salience manipulation might be well served to assess or manipulate factors such as the participants' fit with the environment and the degree of uncertainty participants experience.

There was one other misunderstanding regarding the I–D compensation view of mortality salience that needed to be addressed. I–D compensation theory does not suggest that individuals who are satisfying their immediate-return needs "do not fear death" (Leary & Cottrell, this issue; Solomon, this issue). This hypothesis is plausible to me, but the theory was

really developed to address the *effects* of fear of death, not the fear itself.

Social exclusion. According to Leary, Haupt, Strausser, and Chokel (1998), humans evolved an automatic exclusion detector because their survival depended on being included in a social group. In the target article, I suggested that such a detector would have been "superfluous" if humans evolved in the context of an immediate-return society. I guess I should make it clear now that that statement was hyperbole. I was exaggerating to make a point. I did not expect the statement to be taken literally.

As I noted in the target article, individuals in immediate-return societies can lose esteem through self-aggrandizement and selfish behavior. This would not be possible if there were no socially sanctioned forms of behavior to which individuals were expected to conform (e.g., modesty). Thus, even in immediate-return societies, individuals are likely to display concern about the effects of their behaviors on others. There are potentially important differences between immediate- and delayed-return societies, however, and these differences may be relevant to any formulation of social exclusion.

Recall that the residential unit in immediate-return societies is the band and that the composition of these bands can change daily. If one member of a band engages in behavior that some other members find offensive, then the likely result is that the offended individuals will leave to take up residence in another band. As Woodburn (1979) noted

> most disputes are resolved by self-segregation and attract hardly any attention: units are highly unstable with individuals constantly joining and breaking away, and it is so easy to move away that one of the parties to the dispute is likely to decide to do so very soon often without even acknowledging that the dispute exists. To move to another camp involves no loss of property and no sacrifice of any important interests. (pp. 252–253)

In other words, in immediate-return societies, it is not so much that offending individuals are excluded as it is that offended individuals move away. The offending individual could also move to another group if he or she so wished. Such movement is standard operating procedure in immediate-return societies. What this means is that it might be difficult in an immediate-return society to be so thoroughly excluded socially that one's survival would be threatened. I should note, though, that in cases of extreme and repeated offensive behavior, attempts will be made to alter the individual's behavior. If these attempts fail, then murder is a real possibility (Brunton, 1989; Woodburn, 1979). Obviously, murder is a threat to survival. So, perhaps it could serve as the basis for the development of a social exclusion detector. A detector evolved to deal with this level of exclusion, however, might be calibrated for conditions more extreme than the routine fluctuations in liking and acceptance that individuals are likely to experience on a daily basis.

Another factor that has to be considered from a social exclusion perspective is that immediate-return societies have few clear-cut, widely acknowledged cultural values that a person could violate to be excluded. As Woodburn (1980) noted, "In immediate-return systems people often do not, at least explicitly, seem to value their own culture and institutions very highly and may, indeed, not be accustomed to formulating what their custom is or what it ought to be" (p. 106). Other researchers concur. Morris (1976), for example, described the Hill Panderam as having "no interest in formalizing their culture" (p. 544; Morris, 1982, p. 39) and as placing "very little emphasis on tradition or formal knowledge" (Morris, 1982, p. 390). Gardner (1966) characterized the Paliyan as having "no formalized body of knowledge and hardly any verbalized rules of behavior" (p. 397), and he noted that their "rituals are highly variable and may be dispensed with altogether" (Gardner, 1972, p. 436). Perhaps the best summary of immediate-return societies came from Brunton (1989) when he concluded that "To the extent that their egalitarianism is thoroughgoing, such cultures can be little more than heaps of randomly associated elements, whose persistence is always fortuitous" (p. 678).

One implication of this cultural instability is that although survival of any given individual is likely to be facilitated by contact with others, within an immediate-return society this survival is not contingent on acceptance by specific others or specific sets of others. Group composition is highly fluid, and movement between camps is the norm. Only in the case of extreme behavior would an individual be so thoroughly excluded as to threaten the individual's survival. These observations raise the possibility that if humans really did evolve an exclusion detector, and if this evolution really did occur in the context of an immediate-return society, then this detector may not be well suited to guiding social interactions in today's societies—societies that, relative to immediate-return societies, have more explicit rules governing social behavior and more long-term binding dependencies on specific individuals.

Self-enhancement theories. Some contributors had trouble understanding how the compensation processes spelled out in the target article reflected an attempt to return to a dynamic relation with the environment. According to Erber (this issue), for example, "it is not clear how reducing the relevance of a domain in which one is outperformed by others, especially if they are close, would necessarily constitute an attempt to

perform optimally." Similarly, Wicklund (this issue) noted that "it takes a stretch of the imagination to interpret such findings as respondents' helping themselves to return to a simple, task-oriented flow experience."

What needs to made clear in addressing these concerns is that moving toward a dynamic fit with the environment does not mean that individuals are necessarily moving into a blissful, selfless, peak experience. One's degree of fit with the environment is relative. Individuals may receive more or less evidence that they are progressing toward their goals and that their efforts will pay off. Thus, compensation does not always move individuals "back to the genuine" as Wicklund assumed. In fact, in the target article, I described compensation as an attempt by individuals to attain (a) evidence that they are progressing toward their goals, (b) enjoyment concurrent with their efforts, and (c) a generalized expectancy of success. Although compensation may sometimes move an individual into a blissful, selfless state, it does not always do so. In fact, it may rarely do so. What compensation does do in every case, however, is reflect an attempt by individuals to obtain evidence that they are progressing toward their goals and that their efforts will pay off.

This more adaptivist view of compensation, as Strube et al. noted, is very similar to the view of self-motives espoused by Strube and Yost (1993). As Strube et al. (this issue) put it, "self-motives are best construed as attempts to establish, uncover, and maintain opportunity niches in which skills and abilities match favorably the demands of the environment, ensuring relatively greater success than failure." I agree.

Intrinsic motivation. According to I–D compensation theory, individuals function optimally when they receive frequent feedback regarding progress toward their goals and indicating that their efforts will pay off. Not surprisingly, commentators whose research has focused on intrinsic motivation (Csikszentmihalyi; Kasser; Ryan and Couchman) found some common ground between their work and this assumption of the theory. Ryan and Couchman (this issue), however, expressed concern that the theory was "too narrowly focused on competence and payoff feedback per se." They suggested that progress toward intrinsic goals is related to increased health and optimal functioning, whereas progress toward extrinsic goals is not (see also Kasser, this issue).

I am generally sympathetic to this position. In fact, the first version of I–D compensation theory included the restriction that progress must be relative to goals toward which individuals are intrinsically motivated. I eliminated that restriction, however, primarily because it may be possible to account for at least some of the differences between intrinsic and extrinsic motivation using only the concept of immediate-return needs. According to I–D compensation theory, individuals function optimally when they receive frequent feedback that they are progressing toward their goals and that their efforts will pay off. Consider that feedback regarding progress toward an extrinsic goal may not be as frequent or as clear as feedback regarding progress toward an intrinsically motivated goal. If an individual is cooking dinner solely for the enjoyment of his or her guests (an extrinsic orientation), for example, then the individual is engaging in immediate effort for an outcome that is delayed and uncertain. The cook does not know if his or her efforts have produced their desired effects until after the guests have arrived and have eaten the meal. Moreover, even at this point, the feedback may be ambiguous. Were the guests being genuine in their compliments or were they merely being polite?

If the individual is cooking for the fun of it (an intrinsic orientation), however, then the individual knows clearly for him- or herself as he or she is cooking whether he or she is attaining the goal of enjoying cooking. If the individual is enjoying the cooking, then he or she can continue. If the individual is not, then he or she may switch to an alternate behavior that may be more enjoyable. In this way, the intrinsically motivated individual does not have to maintain pursuit of an activity that demands immediate effort for a delayed and uncertain payoff. In other words, at least some of the distinctions between intrinsically and extrinsically motivated behaviors may be distilled down to differences between immediate and delayed feedback.

In sum, I think the connections between I–D compensation theory and the research on intrinsic motivation are, to use Kasser's word, intriguing, and I think the implications of each line of work for the other should be explored. For the time being, however, I would like to see how far we can get using just the concept of immediate-return needs.

Was My Depiction of Immediate-Return Societies Accurate?

A few contributors had difficulty believing that the immediate-return societies were as I depicted them. One possible contributor to this difficulty was a tendency on the part of some contributors to orient their reply around a caricature of my depiction. Greenberg (this issue), for example, proclaimed that the groups he read about in one of my primary references bore "little or no resemblance to the entirely egalitarian, present-focused people … described in the target article." Erber (this issue) wrote that "our cave-dwelling ancestors did not invest in the stock market. But does this mean that every aspect of their lives was determined by concerns with immediate returns?"

Note that phrases such as "*entirely* egalitarian" and "*every* aspect of their lives" did not appear in the target article. What I actually said was "In immediate-return

systems, individuals use labor to attain food and other resources for *relatively immediate* consumption" and that they "*tend* to live in the phenomenal present." I contrasted these individuals with those living in delayed-return systems who "are *largely* oriented toward the past and the future rather than the present." I also said that individuals in immediate-return societies show "a minimum" of long-term investment in artifacts and social relations and that they place "a strong emphasis" on sharing. Use of this relativistic wording was intentional. I was trying to avoid a simplistic, dichotomous depiction. Apparently, I was not entirely successful.

The bottom line is that the distinction between immediate and delayed-return cultures is a relative one (Begler, 1978). There are some immediate-return aspects in delayed-return societies and some delayed-return aspects in immediate-return societies (Woodburn, 1982a). What matters for my argument is merely that societies differ significantly from one another in terms of their time perspective, egalitarianism, and so on. When considered in this less dichotomous way, it can be seen that there was some agreement with my characterizations even among those who otherwise had difficulties with the theory.

Greenberg (this issue), for example, conceded that individuals in immediate-return societies "are relatively collectivistic and share food extensively, and they do less extensive planning for the future than Americans who take out 30-year mortgages and set up Roth IRAs." Kenrick (this issue) conceded that "our ancestors rarely confronted a delayed-feedback task comparable to the 15-year preparation between freshman year in college and a secure academic professorship" and that "our ancestors lived under more communal arrangements then we do today." Also in agreement were Leary and Cottrell (this issue) when they suggested that

> people who live in immediate-return environments may reject one another less than people in industrialized societies; indeed, many factors known to influence attraction and acceptance (e.g., physical and attitudinal similarity, proximity) favor greater acceptance among small tribal groups than in larger communities.

These kinds of relative distinctions are all I need to make my point.

According to some contributors, however, even assuming relative differences between immediate- and delayed-return societies overstates the case. Apparently, these contributors believed that, when all is said and done, immediate-return societies really display all the same features as delayed-return societies. In trying to make a case for this argument, both Greenberg and Kenrick mentioned hunter–gatherer societies that did not seem to fit with my portrayal of immediate-return societies. The weakness of their argument, however, is that none of the groups they mentioned were, in fact, immediate-return societies. Recall my disclaimer in the target article: "Although immediate-return systems exist only among hunters and gatherers, not all hunter and gatherers live in immediate-return systems." These systems are seen primarily among nomadic, nonstoring hunter–gatherers. Let us consider some of the suggested counterexamples in light of this restriction.

Both Greenberg and Kenrick claimed that the Australian Aborigine did not fit my depiction of immediate-return societies. They were correct. The Aborigines do not fit. The reason for this lack of fit, however, is simply that the Aborigines are not an immediate-return society (Brunton, 1989). Unlike immediate-return societies, the Aborigines allow for private ownership of property, the accumulation of wealth, and the restriction of religious knowledge and ritual paraphernalia to a privileged few (Flanagan, 1989). They are also engaged in a complex system of long-distance exchanges involving long-term dependencies, and Aborigine men must engage in certain behaviors (e.g., marriage) to achieve rank, wealth, and privilege (Begler, 1978). Another problem is that most of the research on the Aborigines in the past 50 years has been among those in government settlements, missions, or cattle camps. If these people ever lived in an immediate-return society, they do not do so now. They are no longer nomadic, and their hunting and gathering has become mixed with wage labor and welfare handouts. In short, the Australian Aborigines display features such as earned status because they are not an immediate-return society.

Greenberg and Kenrick also discussed the Bushmen of the Kalahari as a counterexample. Unfortunately for their argument, few Bushmen live in immediate-return societies. In fact, only about 10% of the Bushmen population could be considered pure hunter–gatherers (Vierich, 1982). The remaining 90% supplement their hunting by tending small gardens and keeping small herds of goats. Not only does this agricultural and pastoral lifestyle foster individual ownership (which is highly sanctioned against in immediate-return societies), but it also inhibits mobility. Whereas an immediate-return society might move camp every 2 to 3 weeks, Bushmen may occupy the same dry season camp for as long as 6 months. In addition, most of the Bushmen are involved in significant long-term obligations in a system of exchanges with their neighboring pastoralists (Vierich, 1982). These, and other contacts with outsiders,

> have resulted in some marked shifts in settlement and subsistence patterns among many Basarwa [i.e., Bushmen], perhaps the most significant of which are in the degree of residential stability and increased dependence upon domestic food sources and trade

> goods. These changes have been accompanied by social and political shifts reminiscent of changes among many hunting-gathering groups as they become increasingly sedentary. (Hitchcock, 1982, p. 235)

The last example, the Yanomamo, came from Kenrick (this issue). This group, however, like the others, has a delayed-return economy. According to Chagnon (1983), not only do the Yanomamo often organize into permanent settlements, but "approximately 80–90% of the food eaten by the Yanomamo is from their gardens, and their political, economic, and military activities reflect this in an overwhelming manner" (pp. 59–60). In short, the Yanomamo are not nomadic, nonstoring hunter–gatherers. It is not surprising, therefore, that they do not display the features of such hunter–gatherers.

These examples show that it is not sufficient to search one's memory or the local used bookstore and pull out whatever nonindustrialized culture you come upon and assume it is an immediate-return society. Immediate-return societies are rare, and they are defined by their possession of the features I described in the target article (see Woodburn, 1982b). Examples of immediate-return cultures include the Batek of Malaysia, the Hadza of Tanzania, the Mbuti of Zaire, and the Paliyan and the Hill Panderam of South India.

A final criticism of my depiction of immediate-return societies was that I accurately described Woodburn's generalizations, but that Woodburn himself mischaracterized the societies he studied (Greenberg, this issue). The best response to this kind of criticism is for the reader to go to the original sources and check for him- or herself. I am confident that if the reader does this, he or she will find my depiction (as well as Woodburn's) to be accurate. Toward this end, I recommend the following articles (for which the complete citations can be found in the references): Begler (1978), Boehm (1993), Brunton (1989), Flanagan (1989), Knauft (1991), and Woodburn (1982a).

Having said that, let me give one example of the way in which presenting information out of context can be misleading. Greenberg (this issue) noted that the Hadza "go through elaborate dance rituals on a monthly basis to mourn and commemorate the dead." Presumably, Greenberg brought this up as a way of countering my (and Woodburn's) claim that individuals in immediate-return societies tend not believe in an afterlife. The problem, of course, is that the simple observation that a group of people mourn and commemorate their recently deceased friends and relatives does not in itself tell us whether this group is concerned about perseveration of the self after death, which is really the issue. Additional information is needed to resolve this issue one way or the other. Fortunately, such information is provided in Woodburn's (1982b) original description.

> The Hadza link death and burial with their major religious celebration, the sacred *epeme* dance performed in pitch darkness each month. The dance stresses kinship and joint parentage and seeks to reconcile the opposed interest of men and women which are so manifest in other contexts. Failure to hold the dance is believed to be dangerous. Performing the dance is believed to maintain and promote general well-being, above all good health and successful hunting.
>
> At some point, the dead person will be commemorated by being danced for. The evidence suggests that the dead person is simply being commemorated and not that he or she (or any sort of spiritual counterpart) is believed to be present at the commemoration. The Hadza told me that the person is simply being remembered with affection and that the purpose of the commemoration is not to placate the ghost or to ward off any danger, because the dead are not dangerous to the living. Apparently the *epeme* dance at which the dead person is mentioned is not seen as special or as significantly different from other *epeme* dances. The living will be danced for in the usual way at the same dance. (pp. 190–191)

Not only does commemoration of a recently deceased individual at the *epeme* dance not reflect a belief in the afterlife, but recently deceased individuals are not always commemorated at such dances. Commemorative dances are not performed, for example, for children who have died or for individuals who have died outside of the camp (e.g., in the forest). A commemorative dance may also not be performed if an individual dies at a time when things are otherwise going well. This makes sense when one considers that the dance is performed "to maintain and promote general well-being, above all good health and successful hunting" (Woodburn, 1982b, p. 191). In short, the dance is focused on this life, not the afterlife.

Conclusion

So, what have we learned? We have been through a lengthy target article, 15 commentaries, and a reply. We discussed life, death, Zen, evolution, and hunter–gatherers. It would be nice if, after all of this, we could say that we learned that I–D compensation theory was correct and that we now had the ability to make everyone immune to excessive concerns with the self. Let us just say that it is a little too early for such a conclusion. It would also be nice if we could say that we gained some insights from the commentaries that allowed us to make everyone immune to excessive concerns with the self. I guess we can say that it is a little too early for this conclusion as well. Perhaps the main benefit we derived from this intellectual exchange was the chance to reexamine some of our basic assumptions. Is love of the self really a dominant motive? Is this motive really universal? Does

it have the same degree of influence regardless of an individual's life situation?

The more general possibilities inherent in this intellectual exchange were captured in comments by two of the contributors. Erber (this issue) suggested that "every once in a while someone will rattle the cage of our collective theoretical confinement. Martin's (this issue) I–D compensation theory rattles the cage in several ways." Csikszentmihalyi (this issue) made more or less the same point when he said "I especially applaud Martin's attempts to reverse the current hegemony of deficit-based explanations for every human motive." In both cases, I think, the authors are pointing to the benefits of rethinking the major assumptions that have been guiding our work. Such rethinking is especially important when these guiding assumptions are so generally accepted that they go unnoticed.

In his commentary, Wicklund (this issue) suggested that the social psychology literature is replete with evidence of individuals being motivated by ego-defense. I disagree. I think what we have is a literature replete with data *that have been interpreted as* individuals being motivated by ego-defense. It may be time to take another look. Of course, not everyone is optimistic about what such a look would reveal. Wicklund, for example, stated that "it takes a stretch of imagination" to interpret certain effects in the literature as individuals attempting to optimize their fit with the environment. I agree that it takes imagination, but not "a stretch." Merely "some." How much? Just enough to look past "the current hegemony of deficit-based explanations." If we do so, we might find something very interesting. We might not. But we will never know unless we try.

Notes

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