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## The Positive Psychology of Negative Thinking



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As the positive psychology movement gains momentum, both within psychology and in the broader culture, it becomes increasingly important to ensure that the complexity of individual personality and psychological processes do not get lost in a "one-size-fits-all" approach to improving human functioning. In this article, we consider some of the ways that the costs and benefits of different kinds of optimism and pessimism may vary across different individuals, situations, and cultural contexts. We use defensive pessimism research to illustrate that there are times when pessimism and negative thinking are indeed positive psychology, as they lead to better performance and personal growth. We also consider the ways in which dominant American culture—and research in psychology—may underestimate some of the costs of optimism. © 2002 Wiley Periodicals, Inc. *J Clin Psychol* 58: 993–1001, 2002.

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There is substantial evidence that optimism, in its many forms, is related to better outcomes (e.g., coping, satisfaction, well-being) measured in a variety of ways across a variety of contexts. This evidence makes it extremely tempting to conclude that optimism is always to be desired over pessimism, and further, that as researchers, educators, policy consultants, therapists, and parents we should do everything we can to promote optimism—a conclusion, not coincidentally, supported by much of American popular culture. This strong positivity zeitgeist means that it is especially important that we clarify for ourselves, and for those who might be consumers of our work, the ways in which our theories and research present a picture that is more complicated—and more useful—than "optimism is good" and "pessimism is bad."

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The purpose of this article is to review some of those complications. Our aim is to be illustrative, not comprehensive, and many of our points are quite simple. Nevertheless, our experience is that complexities are easily obscured in both lay and professional discourse, and that it is thus useful to make them explicit. We will draw heavily on defensive pessimism research, both because we know it well and because its counterintuitive results clearly exemplify several of the points we hope to make. In summary, those points are:

1. Optimism and pessimism, as well as positive thinking and negative thinking, are umbrella terms that cover several concepts, the differences among which need to be kept clear.
2. The costs and benefits that accrue to one form of optimism or pessimism are not automatically associated with other kinds.
3. There are potential benefits *and* costs to *both* optimism and pessimism or positive and negative thinking (as they are variously defined); but several factors often combine in ways that lead to overemphasis on the merits of optimism and underemphasis of its potential costs.
4. Those costs and benefits may be highly sensitive to context (broadly and variously defined); thus, our research designs, interpretations of results, advocacy, interventions and teaching need to be sensitive to costs, benefits, and context.
5. Positive psychology is not synonymous with positive thinking and optimism.

A quick sampling of the kinds of optimism and pessimism found in the literature makes clear that there is a daunting array of constructs. Norem and Chang (2001) list several, including dispositional optimism and pessimism (Scheier & Carver, 1985), optimistic and pessimistic attributional or explanatory styles (Peterson & Seligman, 1987), naive optimism (Epstein & Meier, 1989), optimistic biases or illusions (Taylor & Brown, 1988), neurotic and rational pessimism (Kelman, 1945), unrealistic optimism (Weinstein & Klein, 1996), unrealistic pessimism (Dolinski, Gromski, & Zawisza, 1987), realistic pessimism (Frese, 1992), and defensive pessimism and strategic optimism (Norem & Cantor, 1986).

Distinctions among these constructs are more than semantic because different constructs have different associated consequences and implications. In some research, for example, pessimism, but not optimism, has been associated with particular outcomes (Dember, Martin, Hummer, & Howe, 1989; Raikonen, Matthews, Flory, Owens, & Gump, 1999). Defensive pessimism is linked to more positive outcomes than dispositional pessimism, and both naive and unrealistic optimism are linked to more negative outcomes than dispositional optimism.

Different types of optimism and pessimism also vary in both the extent to which and the circumstances under which they are potentially changeable. At one extreme, Seligman and colleagues have argued that attributional style is learned (e.g., Seligman, 1991), and that maladaptive attributional patterns can be readily changed in therapeutic and educational contexts. In contrast, there is little theoretical reason to suspect, and no empirical evidence to suggest, that dispositional optimism and pessimism are malleable. Taylor (1989) argued that optimistic illusions are adaptive in part because they are responsive to experience and feedback from the environment; nevertheless, to the extent that these illusions are maintained by unconscious processes, there is reason to suspect that they might be relatively resistant to change (Norem, 1998). Defensive pessimism, theoretically at least, is among the more malleable types of pessimism; yet as we will see later, it is far from clear that individuals necessarily benefit from being "cured" of their defensive pessimism (Norem, 2001b).



One of the explicit goals of positive psychology (Seligman & Csikszentmihalyi, 2000) is to apply psychological knowledge to the betterment of individuals and society. In applied contexts, we need to think carefully about what we might realistically endeavor to change in order to improve client, student, or employee outcomes, and when change might have unintended consequences. One of the biggest gaps in optimism and pessimism research—and one which is central to questions of change—concerns the intrapsychic context of optimism and pessimism. For example, optimism is correlated positively with extraversion, self-confidence, self-esteem, repression, self-deception, and positive affect, and negatively with anxiety, neuroticism, self-consciousness, and a host of other variables. Though we are becoming more sophisticated about isolating the statistical effects of single variables, we need to remember that in real life, characteristics are integrated within an individual's personality, and their effects do not occur in a vacuum.

As an example, Davidson and Prkachin (1997), in one of the few published attempts to disentangle the effects of dispositional optimism and unrealistic optimism, showed in two different studies that dispositional optimism and unrealistic optimism *interacted* to predict coronary heart disease (CHD)-related outcomes. In the first study, optimism alone was unrelated to exercise over time while unrealistic optimism was related to decreased exercise over time. Those participants who were high on both optimism and unrealistic optimism showed the largest *decreases* in exercise over time while those who were high in optimism and low in unrealistic optimism showed the greatest increases. A similar pattern was found in a second study, when the outcome variable was knowledge of CHD prevention after classroom instruction. In both studies, unrealistic optimism and dispositional optimism were positively correlated with each other. This study makes clear that (a) the distinctions among different kinds of optimism and pessimism are consequential, (b) all optimism is not equally beneficial, (c) we know very little about interactions among different types of optimism and pessimism or how changing one kind of optimism (or pessimism or negative thinking) will change another.

#### Rethinking Affect as an Outcome

Particular life outcomes also do not occur in a vacuum. Not surprisingly, in a cultural context that highly values individualism, the vast majority of research on optimism and pessimism focuses on individual outcomes, and especially on outcomes related to positive affect and satisfaction. The most ubiquitous findings across optimism and pessimism research are those relating optimism of many sorts to more positive affect. Somewhat surprisingly perhaps, research on more objective outcomes such as task performance reveal much less reliable links across optimism constructs (Affleck, Tenne, & Apter, 2001; Norem, 2002b).

Affect is conceptually tricky as an outcome variable, however. For example, several recent lines of research converge to suggest that predispositions to experience positive and negative affect are genetically influenced and have distinct biological substrates (Ball & Zuckerman, 1990; Gray, 1987; Zuckerman, 2001). This does not mean, of course, that those tendencies cannot be changed through experience or influenced by environment, nor does it imply that variation in affect within individuals is not influenced by positive or negative thinking. It does suggest, however, that when one compares affective and other outcomes across individuals, is it important to remember that outcomes need to be evaluated relative to where people start. Finding a definitive starting point in the relationship between affect and expectations is difficult.

If one person begins with a stronger predisposition to experience negative affect, or a weaker tendency to feel positive affect, we have to consider both the extent to which

mood influences initial expectations in a particular situation and variations in mood from individual to individual. Moreover, patterns of covariance of optimism/pessimism and mood across individuals do not necessarily mimic covariance *within* individuals.

#### Defensive Pessimism: Using Negative Thinking

These abstract points are clearly instantiated in research on defensive pessimism (for a review, see Norem, 2001a). Defensive pessimism refers to a strategy anxious individuals may use to pursue important goals: These individuals set unrealistically low expectations and then devote considerable energy to mentally playing through or reflecting on all the possible outcomes they can imagine for a given situation.

Research has typically contrasted defensive pessimism with strategic optimism. The latter refers to a strategy whereby individuals set optimistic expectations for their own performance and actively avoid extensive reflection. In addition to avoiding reflection prior to a task, strategic optimists typically employ the kinds of self-serving optimistic illusions Taylor and Brown (1988) describe.

Generally, research has shown that defensive pessimists perform as well as strategic optimists, and that both groups show performance decrements and increased anxiety when prevented from using their preferred strategies (Cantor & Norem, 1989; Cantor, Norem, Niedenthal, & Langston, 1987; Norem & Cantor, 1986; Norem & Illingworth, 1993); Spencer & Norem, 1996). For example, Norem and Illingworth (1993) found that, on both an arithmetic task in a laboratory experiment and when pursuing their personal goals in "real life," defensive pessimists did best when they thought through possible negative outcomes. Strategic optimists, in contrast, did best when they avoided reflecting on possible negative outcomes and significantly worse when they did reflect. Similarly, Spencer and Norem (1996) found that defensive pessimists performed best on a dart-throwing task when they engaged in coping imagery (imagining what could go wrong) and significantly worse when they engaged in relaxation imagery. The opposite pattern was obtained for strategic optimists.

Across a variety of settings, participants, and tasks, this research shows that when defensive pessimists and strategic optimists are left alone to use their strategies, they do equivalently well. Both groups also are vulnerable to disruptions that interfere with their strategies, but what disrupts one group's performance facilitates the other group's performance.

Beyond performance outcomes, however, this same research also has shown that strategic optimists tend to be more satisfied and in a better mood than defensive pessimists. From those results, one might conclude that strategic optimism is clearly better than defensive pessimism, even if defensive pessimists often perform well. After all, performing well and being really happy about it is obviously better than performing well but feeling less satisfied. It is very tempting, then, to think that people using defensive pessimism need to be calmed down and reassured, and that the best thing is to help them become more optimistic and thus more satisfied.

That conclusion, however, ignores the crucial point that people who use defensive pessimism are typically high in anxiety. That aspect of intrapsychic context is fundamental to understanding the strategy. Further research shows that it is possible to cheer up defensive pessimists—to put them in a positive mood—just as it is possible to put strategic optimists in a negative mood. Surprisingly, however, positive mood *impairs* the performance of defensive pessimists and does not lead to greater satisfaction. Negative mood typically impairs the performance of strategic optimists (Norem & Illingworth, in press; Sanna, 1996, 1998).



In other words, despite considerable evidence that dispositional pessimism can have debilitating motivational effects, *defensive* pessimism has a different and positive function: It helps anxious people manage their anxiety so that it does not interfere with their performance. Its meaning and consequences are only seen when considered in conjunction with the problem that anxiety poses for individuals motivated to pursue performance goals. Defensive pessimists perform better when they are allowed to maintain their low expectations and to reflect on negative possibilities before a task; their performance is impaired (and they feel *more* anxious) if that reflective process is disrupted by positive thinking and optimistic expectations or curtailed by positive mood.

Comparing defensive pessimists to strategic optimists is informative, but it is at least as illuminating to compare defensive pessimists to other people who are anxious but do not use defensive pessimism. In a longitudinal study, Norem (2002a) found that defensive pessimists show significant increases in self-esteem and satisfaction over time, perform better academically, form more supportive friendship networks, and make more progress on their personal goals than equally anxious students who do not use defensive pessimism. Anxious people who use defensive pessimism, in other words, do better than anxious people who do not. This research converges with that contrasting strategic optimism and defensive pessimism to suggest quite strongly that taking away their defensive pessimism is not the way to help anxious individuals.

Defensive pessimism research makes clear that "one size fits all" prescriptions for optimism and positive thinking do not, in fact, fit some people very well. From this perspective, the negative affect—specifically, the anxiety—experienced by the defensive pessimists is not so much an outcome of their negative approach, but part of the problem their approach is designed to tackle. The pessimism and focus on negative possible outcomes that make up defensive pessimism as a strategy function as a "do-it-yourself" (and quite effective) cognitive therapy for anxious individuals; imposing positive thinking disables them.

More generally, one important life outcome that we risk ignoring if we focus exclusively on the positive is the ability to tolerate negative affect and negative self-views while we work toward positive change. Defensive pessimists work through their anxiety on their way toward their goals rather than focusing on increasing their immediate happiness or satisfaction: They remind us that feeling good is not always the highest priority.

#### The Costs of Optimism?

Somewhat less obviously, research contrasting defensive pessimists with strategic optimists also illustrates that the strategic optimists are susceptible to derailment of their positive approach. Reflecting about possible outcomes impairs their performance. This is less a general indictment of their strategy—after all, they usually do quite well—than a hint about some of the potential costs of optimistic strategies and the vulnerabilities of those who use them. Situations or contexts that require review of alternative possible outcomes (e.g., "trouble-shooting" to diagnose potential problems) or involve negative outcomes that need to be acknowledged so that they can be prepared for may not mesh well with strategic optimism.

Aging may very well be one of those contexts. Some research suggests that the costs and benefits of optimism and pessimism may vary across the life span. Robinson Whelen, Kim, MacCallum, and Kiecolt Glaser (1997) found little evidence for the "power of positive thinking" in predicting anxiety, stress, depression, and self-appraised health among an older-aged group of caregivers and noncaregivers. Isaacowitz and Seligman (2001) reported that among the elderly, a realistically pessimistic perspective is associated with

better adaptation to negative life events, in contrast to the typical findings with younger samples.

Optimism and positive thinking can derail us if they lead us to ignore or discount important cues and warnings. Given the self-serving function of optimistic biases, strategic optimists should be motivated to preserve their positive self-images and positive outlooks, and thus potentially resistant to negative feedback that might be informative. Indeed, in one study, Norem (2001a) found that strategic optimists remembered feedback about a social performance as significantly more positive than it actually was, and also thought they had less need to improve their performance than observers perceived they did.

In many everyday life contexts, the mild positive biases reinforced by optimistic attributional styles may be so motivating of effective action that they compensate for the potential problems that could result from avoidance or distortion of negative feedback. If, for example, a strategic optimist perceives that a neighbor has a more positive impression of him than is the case, the optimist's likely response would be reciprocation: We tend to like those whom we think like us. If the optimist likes this neighbor (whom he believes likes him) and then behaves in a consistently friendly way to that neighbor, the neighbor is relatively likely to reciprocate in turn. Even if the neighbor's actual evaluation of the optimist never becomes quite as positive as the optimist's perception (or as the optimist's self-evaluation), it may well be positive enough to form the foundation for a mutually beneficial friendship.

Nevertheless, we know relatively little about when and how an inflated or self-deceptive sense of self-regard traverses the terrain between positive motivation and less adaptive, or even destructive, egotism. Bushman and Baumeister (1998), for example, showed how threatened egotism can lead to aggression and violence against others.

Considering Bushman and Baumeister's (1998) findings highlights once again that the majority of research on optimism and positive thinking has considered their consequences for individual achievement and satisfaction. There is a relative dearth of research that considers not just the outcomes of individuals but the influence of individual optimism on the outcomes of other people. Americans generally respond well to others' optimism, and we certainly expect it of our leaders (Chemers, Watson, & May, 2000). Much is made, for example, of the self-confidence, optimism, personal accomplishments, and resilience of American business leaders. When business practices fail, we are likely to attribute the soft landings (aided by "golden parachutes") of executives and their often spectacular comebacks to their positive attitudes. Much less often, however, do we tally up the costs to employees (and sometimes investors and clients) when overly optimistic expansions and acquisitions lead to bankruptcy and layoffs. Indeed, throughout society we could point to delays and overruns as a result of overly optimistic projections, and disasters that might have been avoided or curtailed if we were willing to consider the negative. Nevertheless, just as in ancient times, we remain unreceptive to modern Cassandras—no matter how many times we are reminded that the original Cassandra was right. In these contexts, much as with the self-serving attributions of optimistic individuals, optimism gets the credit when things go well, but avoids blame when things go badly.

The costs and benefits of prototypically American, individualistic optimism also may vary across cultures. Chang (1996) found that Asian Americans were significantly more pessimistic than Caucasian Americans, but not significantly less optimistic. In addition, while pessimism was negatively associated with problem-solving and expressing emotion coping strategies for Caucasian Americans, it was *positively* associated with use of these coping strategies for Asian Americans. It seems likely that relationships between self-enhancement and other outcomes might vary in cultures that are less focused on individual achievement and satisfaction than American culture.



## Positive Psychology and Negative Thinking

None of this is to suggest that the benefits of positive thinking and optimism are not both real and substantial in many cases. We just want to suggest that the kinds of research and arguments we have reviewed emphasize that positive psychology needs to include more than positive thinking and optimism. It should reflect the diversity of ways in which people achieve a diverse array of positive outcomes, including interpersonal and social outcomes. In studying how people achieve positive outcomes, we need to look beyond positive affect and personal satisfaction. We also need to look beyond what people have achieved at a given point in time to what they are working on achieving over time and what they accomplish relative to where they start.

The problem with any general zeitgeist is the extent to which it may blind us to the questions we are neglecting to ask and the answers we do not want to see. The challenge for positive psychology as it works to better the human condition is to remember that there is no one human condition. We live under many conditions, across our own life span, across different situations, in interactions with different people in our lives, and across a multitude of economic, social, environmental, and political circumstances. As we study how people make positive progress in their lives, we need to take care not to let the power of any one pathway keep us from seeing the alternative routes individuals devise toward their goals. Humans excel at adaptation to varied circumstances using varied means; it will take all of our collective insight to understand our own resourcefulness.

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