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The Actively Caring for People Movement: A Synergistic Integration of Behaviorism, Humanism, and Positive Psychology

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Abstract

This article reviews the Actively Caring for People (AC4P) Movement, initiated in 2007 to increase occurrences of interpersonal acts of kindness worldwide. Resources to support the AC4P Movement, including research-based training manuals and AC4P wristbands for adults and children, are available at www.ac4p.org. This prosocial movement incorporates principles from three diverse disciplines of psychological science: humanism, positive psychology, and applied behavioral science (ABS). With this article, I explicate seven evidence-based "life lessons" that operationalize select principles from humanism and ABS, and rejuvenate a seemingly forgotten applied psychology concept from the 1970s: humanistic behaviorism. Whenever and wherever practiced, these life lessons benefit human well-being and quality of life. Certain life lessons reflect the essence of empowerment and self-motivation and thereby illustrate critical distinctions between management and leadership. Next, I exemplify synergistic connections between positive psychology and ABS, highlighting practical techniques for promoting and supporting human welfare and personal happiness. Previous and ongoing research by my students and colleagues demonstrates how ABS can apply findings from positive psychology to promote subjective well-being on a large scale. The need for worldwide application and dissemination of practical procedures to increase occurrences of AC4P behavior is strikingly obvious, perhaps more so now than ever before in our contentious, fractured, and polarized society. This article explores evidence-based strategies for increasing occurrences of AC4P behavior in various settings, with the mission to cultivate an AC4P culture in families, educational settings, corporations, and communities throughout the world.

Keywords behaviorism · humanism · positive psychology · prosocial behavior · applied behavioral science

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I coined the term "actively caring" in 1990 when working with a team of safety leaders at Exxon Chemical. Our mission was to cultivate an Actively Caring for People (AC4P) workplace—a culture that fosters *inter*personal and *intra*personal accountability for occupational health and safety (Geller, 1991). Following the Virginia Tech (VT) tragedy on April 16, 2007, when an armed student took the lives of 32 classmates and faculty and injured 17 more (Geller, 2008), my students and I founded the AC4P Movement. In a time of extreme anxiety, grief, and introspection, we developed a socially engaging process for spreading prosocial behavior and interpersonal gratitude across campus and beyond.

We took the green silicone wristband engraved with "Actively Caring for People" that I had been distributing at safety conferences since 1990 and added a numbering system. This enabled online tracking of participation in the AC4P Movement with a "see, thank, enter, pass" (STEP) process (). When AC4P participants see an interpersonal act of kindness, they thank the performer with an AC4P wristband. Wristband recipients enter their positive AC4P interactions, including a unique wristband number, at the designated website: www.ac4p.org. Subsequently, wristband recipients look for AC4P behavior from others and pass on their AC4P wristband.

By encouraging and tracking reports of sincere appreciation for interpersonal acts of kindness, the STEP process promotes the occurrence of a behavior—an expression of gratitude—that has been shown to significantly increase self-reports of happiness and decrease symptoms of depression (Emmons, 2007; Seligman et al., 2005). Thus, the AC4P Movement connects directly with the burgeoning discipline of positive psychology (cf. Twohig et al., 2016), which develops, applies, and evaluates interventions to boost individual happiness (Seligman & Csikszentmihalyi, 2000).

To date, more than 10,000 AC4P acts of kindness have been posted online, with several positive exchanges printed in AC4P education/training manuals customized for police officers (Geller & Kipper, 2017), school personnel (Geller, 2017), safety professionals (E. S. Geller & K. S. Geller, 2017), college students (Geller, 2018), and parents and caregivers (Geller & Fournier, 2021). Elementary schools in northern Virginia and in northeastern Ohio have customized this AC4P process to significantly reduce interpersonal bullying (McCarty et al., 2016). Additionally, police departments in Arizona, Florida, Illinois, and Virginia have applied the STEP process for community policing, using *blue* AC4P wristbands and their own website to acknowledge and report citizens' prosocial behavior at www.ac4ppolicing.org.

A special issue of the *Journal of Prevention & Intervention in the Community* included six AC4P-focused research studies, as well as an introduction to the AC4P Movement by the guest editor (Geller, 2016b). Moreover, a 700-page applied psychology textbook published by Cambridge University Press is subtitled *Actively Caring for People* and teaches research-supported principles and procedures for increasing occurrences of AC4P behavior and improving quality of life in various domains (Geller, 2016a). Nevertheless, the evidence-based AC4P principles and applications have not yet achieved the public dissemination that self-serving, individualistic cultures desperately need. This article explains how the AC4P Movement incorporates concepts from behaviorism, humanism, and positive psychology, and explores strategies for augmenting the appeal, dissemination, and large-scale positive impact of the AC4P Movement.

Humanistic Behaviorism

More than 45 years ago, F. William Dinwiddie (1975) proposed humanistic behaviorism as "a working model for modern, dynamic, and successful treatment centers for children [because] . . . behaviorism modulated by traditional humanistic approaches helps in the molding of an efficient helping environment for children" (p. 259). Similarly, Carl E. Thoresen (1972) claimed that "humanistic psychology offers directions for the kind of behavior that individuals should be able to engage in; contemporary behaviorism offers principles and procedures to help individuals increase their humanistic actions" (p. 4).

In the early 1970s, a number of eminent behavioral scientists considered themselves humanists (Day, 1971; Hosford & Zimmer, 1972; Kanfer & Phillips, 1970; Lazarus, 1971; MacCorquodale, 1971; Staats, 1971; Thoresen & Mahoney, 1974; Ullmann & Krasner, 1969). Why? These behavioral researchers, scholars, and practitioners (a) focused on individual behavior under current circumstances; (b) emphasized the role of learning in explaining and resolving human problems; (c) examined how environments could be altered to prevent or alleviate human problems; and (d) used the scientific method to develop, evaluate, and improve intervention techniques (Thoresen, 1972). With these criteria, B. F. Skinner could be considered a humanist. In fact, the American Humanist Association—founded in 1941 to be a clear and democratic voice for humanism in the United States and to develop and advance humanistic thought and action (American Humanist Association, 2008)—honored B. F. Skinner with "Humanist of the Year" in 1972.

Although several scholars have promoted a combination of principles from humanism and behaviorism, this strategic integration for a more effective and synergistic intervention impact has received limited attention and consideration, especially for improving human behavior beyond the clinic. Indeed, few, if any, students in introductory psychology courses read or hear the term "humanistic behaviorism." Instead, most introductory psychology textbooks emphasize distinct differences between humanistic and behavioral approaches to clinical therapy.

The integration of humanism and behaviorism advocated here incorporates select fundamentals from humanism in order to enhance the beneficial influence of a behavior-improvement intervention. Each of the AC4P training manuals referenced previously, as well as the 20 chapters of the textbook from Cambridge University Press, incorporates fundamentals of behaviorism with select principles from humanism to improve behaviors and attitudes in particular societal domains. The AC4P training manuals define and illustrate seven evidence-based principles—life lessons—to increase the frequency and improve the quality of AC4P behavior in the targeted context and among the relevant participants. The first four life lessons reflect the applied behavioral science (ABS) principles of positive reinforcement, observational learning, and behavior-based feedback. The subsequent three life lessons are derived from humanism—empathy, self-determinism, and self-transcendence. When applied effectively, these humanistic principles augment the beneficial impact of any intervention process that involves interpersonal engagement between people.

These seven life lessons are elucidated in the research literature (Geller, 2015), and they are also illustrated in education/training manuals customized for particular situations, populations, and issues in order to (a) cultivate positive police–citizen relations

(Geller & Kipper, 2017), (b) increase acts of kindness and decrease interpersonal bullying in educational settings (Geller, 2017, 2018), (c) prevent personal injuries in the workplace (Geller & Geller, 2017), and (d) optimize parenting and caregiving (Geller & Fournier, 2021). The following brief summary of the seven life lessons exemplifies a strategic assimilation of behaviorism and humanism.

Life Lesson 1: Employ the Power of Positive Consequences

B. F. Skinner, the founder of the research and scholarship domain of ABS, communicated and validated a basic but profound principle of behavioral science: selection by consequences (Skinner, 1938, 1981). Indeed, Skinner and his followers have demonstrated consistently that behavior occurs when it results in a positive consequence or the avoidance of a negative consequence, and behavior can be modified by changing the consequences that follow it. Moreover, behavioral scientists have demonstrated consistently that positive consequences are more effective than negative consequences at improving behavior (e.g., Chance, 2008; Reed et al., 2016; Thorndike, 1931).

People can often view the same situation as performing either to gain a pleasant consequence or to avoid an aversive consequence. Some students, for example, are driven to achieve success (e.g., a good grade or increased knowledge), whereas other students are motivated to avoid failure (e.g., a poor grade). Which students feel more positive and optimistic about their education—"success seekers" or "failure avoiders"? Which students have a better attitude toward their classes? The answers to these rhetorical questions are obvious.

The application of soon, certain, and positive consequences is the most efficient and effective way to improve both behavior and attitude. However, applying this life lesson on a daily basis can be challenging. Americans seem to live in a "click-it-or-ticket" culture that relies more on negative than positive consequences to manage behavior. The typical government approach to controlling behavior is to pass a law and enforce it, and people mimic this seemingly efficient negative reinforcement process in industry, educational settings, and their homes. Furthermore, the behavior of delivering a negative consequence is often reinforced, because negative consequences are usually more convenient and less expensive to apply than positive consequences. They generally include a monetary fine that supports the enforcement agency, and they often get an immediate desirable result, even though the long-term effects can be detrimental (Sidman, 1989).

Life Lesson 2: Benefit From Observational Learning

If you want to be better at what you do, watch someone who performs that behavior better than you do. The influential power of observational learning is profound. A large body of research in psychological science indicates that this type of learning is involved to some degree in almost all human behavior (Bandura, 1969). Our action patterns influence others more than we realize. Children learn by watching adults, and the behavior of employees is often influenced by the actions of their coworkers and supervisors. Consider, for example, how much children learn by watching the driving

behavior of their parents, including the driver's verbal behavior, which can reflect the frustration and anger that incites road rage.

Observational learning is likely the key to the dramatic worldwide success of behavior-based safety (BBS) at preventing workplace injuries (e.g., Geller, 1996; Geller & Williams, 2001; Krause et al., 1996). Consider the basic BBS process:

1. Coworkers develop a checklist of critical safe and at-risk behaviors on their job.
2. They use this behavioral checklist to observe each other while working, and systematically record the safe and at-risk behaviors they observe.
3. The observer shows the completed checklist to the worker observed, and they discuss the results.

Where is the observational learning? The observers document safe work practices, and in the process, they might learn new ways to work safely. They also observe and document at-risk behaviors to avoid—perhaps behaviors they have performed themselves. This process can be considered observational learning if the BBS observers subsequently work more safely on similar work tasks. Indeed, researchers have demonstrated such observational learning empirically from the BBS observation-and-feedback process (Alvero & Austin, 2004; Alvero et al., 2008). A critical component of the BBS peer-to-peer observation process is behavioral feedback—the third life lesson.

Life Lesson 3: Improve With Behavioral Feedback

Substantial ABS research has demonstrated the instrumental role of behavior-based feedback in improving behavior. Practice does not make perfect; only with relevant behavioral consequences can performance improve. These behavior-improvement consequences can be intrinsic (e.g., when an athlete sees the results of swinging a baseball bat, golf club, or tennis racket) or extrinsic (e.g., when a teacher or coach provides behavior-focused feedback).

When feedback acknowledges desirable behavior, it is considered "supportive feedback"; when behavioral feedback pinpoints specific room for improvement, it is labeled "corrective feedback." Although ABS researchers have demonstrated substantial motivational and performance advantages of using supportive over corrective feedback, correction for undesirable behavior generally occurs more often than does support for desirable behavior.

Interpersonal verbal support for desirable behavior and corrective feedback for undesirable behavior are crucial for the optimal success of any behavior-improvement process. However, many parents, teachers, coaches, and work supervisors have not learned why it is critical to be nondirective or humanistic when giving corrective feedback (Geller, 2018; Geller & Fournier, 2021). Nor have many of these AC4P agents for behavior improvement been instructed to give more supportive than corrective feedback—the next life lesson.

Life Lesson 4: Use More Supportive Than Corrective Feedback

"We can't learn unless we make mistakes." This popular belief might enable people to feel better about the errors of their ways, and provide an excuse for focusing more on failure than success. However, behavioral scientists have shown convincingly that success, rather than failure, produces the most effective learning (e.g., Chance, 2008; Reed et al., 2016).

At the start of the 20th century, psychologist Edward Lee Thorndike put chickens, cats, dogs, fish, monkeys, and humans in experimental conditions that called for problem solving; then he systematically observed how these organisms learned. From these studies, Thorndike derived the "law of effect," which accounts for the fact that behavioral learning is contingent on consequences (Thorndike, 1898, 1931). His key conclusion: Markedly more learning occurs following positive consequences (successes) than following negative consequences (failures).

Given this finding, does an error need to occur in order for a problem to be solved? Although a negative consequence might inform us about a behavior to avoid repeating, it provides minimal or no specific direction for solving a problem. Moreover, emphasis on a mistake can be frustrating and demotivating. When education or training results in no errors, learning is a smooth and enjoyable process (Chance, 2008; Reed et al., 2016). Errors can disrupt the teaching/learning progression and lead to an adverse mindset, especially if negative social consequences accentuate the mistake. Supportive feedback is the most powerful consequence for initiating and sustaining a successful learning process.

Life Lesson 5: Embrace and Practice Empathy

When selecting an intervention method and refining an implementation process, a behavior-improvement agent (e.g., coworker, supervisor, counselor, coach, teacher, law enforcement officer, or parent) should consider subjective evaluations of the recipient's perceptions and person-states, in addition to behavioral observations. Effective evaluations beyond observable behavior require empathy to assess the indirect internal influence of a behavior-improvement intervention. Through questioning and empathic listening, the change agent attempts to learn what it is like to be in the same situation as the client (e.g., employee, protégé, athlete, student, child, or vehicle driver pulled over by a police officer). The mission then shifts to developing a corrective intervention plan that fits the circumstances as mutually understood by everyone involved in the conversation. Clients validate the value of this humanistic life lesson whenever they articulate a personal commitment to follow through with an action plan derived from an empathic conversation with a change agent.

Life Lesson 6: Manage Behavior and Lead People

Managers hold people accountable; leaders inspire people to be self-accountable. Whereas managers control behavior with extrinsic consequences, leaders facilitate self-motivation by activating and supporting perceptions of autonomy (or choice), competence, and relatedness (or community). Dispositional, interpersonal, and environmental conditions that enhance these person-states, presumed to be innate needs by

the researchers of the humanistic theory of self-determinism (Deci, 1975; Deci & Flaste, 1995; Deci & Ryan, 1995), increase an individual's self-motivation.

Guidelines for enhancing perceptions of choice, competence, and community are provided elsewhere (Geller, 2016c, 2018; Geller & Veazie, 2017), and many of these recommendations are consistent with the seven life lessons reviewed here. For example, proper application of positive consequences (Life Lesson 1) and supportive feedback (Life Lesson 3) can increase one's perception of competence and empowerment and thereby fuel self-motivation. This is a primary and practical example of a beneficial integration of ABS and humanism—humanistic behaviorism. The concepts of self-motivation and empowerment go beyond the standard principles and applications of behavior management.

Empowerment

In the management literature, empowerment typically refers to delegating authority or responsibility (Conger & Kanungo, 1988). When managers say "I empower you," they usually mean "Just get 'er done." In contrast, empathic leaders first assess whether the "empowered" person *feels* empowered—"Can you handle the additional responsibility?" This reflects humanism, of course, and might involve asking the three questions depicted in Figure 1, derived from social learning theory (Bandura, 1997).

For the first question—"Can I do it?"—leaders ask an individual or a group whether they have the resources, time, knowledge, and skill to handle the assignment. People acquire knowledge and skill through training that includes behavioral feedback (Life Lesson 3), and a "yes" answer implies a personal belief in possessing the competence to complete the job effectively.

The response-efficacy question asks whether an empowered person believes that pursuing and accomplishing the assignment (i.e., performing the requested behaviors) will contribute to a valued outcome for an individual, group, or organization. Students studying for an exam would answer "yes" to the response-efficacy question if they believe their study strategy will contribute to earning a higher exam grade. A sports team would answer "yes" to this question if the athletes believe their new workout routine will increase the probability of winning a competition. Projected behavioral

Fig. 1 Three Beliefs That Determine Empowerment, *Note.* Adapted from Bandura (1997)

outcomes for these two examples could be more delayed and substantive, like earning a college degree or having a winning season, respectively.

The third empowerment-assessment question targets motivation: Is the expected outcome worth the effort? People are motivated to perform an empowerment-relevant behavior when they anticipate achieving a positive outcome or avoiding a negative outcome. In reference to Life Lesson 1, people perceive more choice and are more likely to be self-motivated when they are working to achieve a positive consequence than when they are responding to avoid a negative consequence (Geller, 2016c, 2018).

Empowerment Versus Self-Motivation

It is instructive to consider a critical distinction between empowerment and self-motivation. Empowerment is a behavioral antecedent or establishing operation (Michael, 1982); self-motivation reflects the impact of one or more consequences. In other words, feeling empowered means an individual is ready (or activated) to work toward achieving a given goal. However, a self-motivated person is anticipating or has received a consequence that supports self-directed behavior rather than other-directed behavior (Watson & Tharp, 1997).

Although the initial proponents of self-determinism (Deci, 1975; Deci & Ryan, 1995) did not connect their theory of motivation with behavioral consequences, behavioral scientists naturally associate consequences with motivation (Life Lesson 1). Positive consequences that reflect autonomy, competence, or a sense of relatedness enhance self-motivation and increase the durability of a behavior-improvement intervention. Therefore, an intervention that applies positive consequences to increase the occurrence of a target behavior will have longer term effects if the intervention inspires self-motivation by linking the behavioral consequence(s) to a perception of choice, competence, or community (cf. Geller & Veazie, 2017).

Behavioral scientists demonstrated the advantage of integrating the humanistic theory of self-determinism with behaviorism when they observed significantly more compliance with behavioral self-monitoring when participants chose their target behavior (Olsen et al., 2011). Relatedly, Ludwig and Geller (1997) only observed response generalization among those pizza-delivery drivers who were involved in selecting a percentage-safe goal for complete stopping at intersections. More specifically, whereas all drivers achieved the 75% complete-stopping goal, only drivers in the intervention group who had selected that goal evidenced a significant increase in buckling their safety belts and signaling a right turn when leaving the store's parking lot.

Life Lesson 7: Progress From Self-Actualization to Self-Transcendence

The hierarchy of needs proposed by humanist Abraham Maslow (1943) is likely the most recognized theory of human motivation. Maslow presumed that categories of needs are arranged hierarchically, and individuals do not attempt to satisfy needs at one stage or level until the needs at the lower stages have been satisfied.

People first attempt to fulfill their physiological needs—to have enough food, water, shelter, and sleep for basic survival. After satisfying these needs, people

desire to feel safe and secure. The need for social acceptance is next—the aspiration to have friends and feel a sense of interpersonal belonging. When these needs are gratified, human concern shifts to self-esteem—the conviction of worthiness or personal success, typically resulting from the approval of others. At the top of the hierarchy is the need for self-actualization—the belief that one has reached his or her full potential. However, Maslow revised this renowned hierarchy shortly before his death in 1970 and placed self-transcendence above self-actualization (Maslow, 1971), as illustrated in Fig. 2.

Self-transcendence implies going beyond self-interest to actively care for others. It may seem intuitive that various self-needs require satisfaction before self-transcendent or AC4P behavior is likely to occur. However, individuals do perform various AC4P behaviors before gratifying all of their personal needs. Mahatma Gandhi, Nelson Mandela, and Mother Teresa are notable examples.

When climbing Maslow's hierarchy, individuals reach need states that implicate consequences linked to self-motivation. For example, consequences that boost one's sense of interdependent relatedness with others fulfill the need for acceptance or social support, and consequences that certify a person's belief in their competence to perform worthwhile work are associated with the self-esteem and self-actualization needs. In other words, behavioral consequences that foster perceptions of intrapersonal competence, interpersonal belongingness, or perceived choice also facilitate self-motivation and thus are likely to have a longer term impact than consequences unrelated to these personal beliefs. Moreover, it is intuitive that reaching beyond self-needs to help others through AC4P behavior can contribute to satisfying the needs for social acceptance and self-esteem, and even self-actualization.

This seventh life lesson connects most obviously to humanism; however, without ABS, self-transcendence is just a theory or vision with limited practical utility. Indeed, a transition to self-transcendence and a significant large-scale
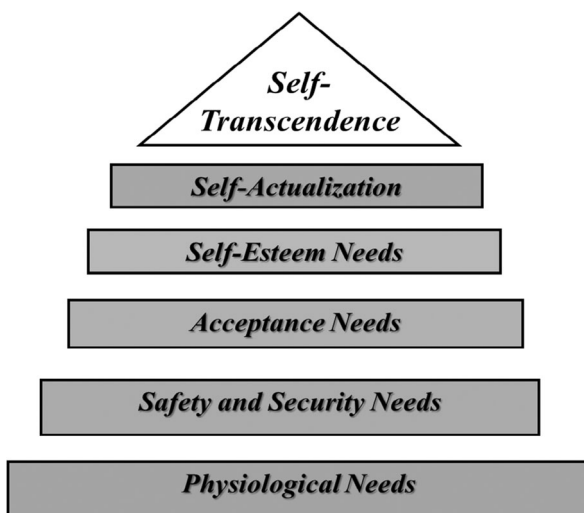
Fig. 2 Maslow's Revised Hierarchy of Needs

increase in occurrences of AC4P behavior could be key to saving the world from itself (Skinner, 1971). In other words, solutions to the multitude of worldwide environmental and interpersonal problems require large-scale transitions from self-serving behavior for soon, certain, positive consequences for personal gain to selfless AC4P behavior supported by delayed, uncertain, hopeful, or imagined positive consequences for others.

Summary

After introducing the AC4P Movement, I explained and illustrated seven evidence-based life lessons presumed to benefit human well-being and quality of life whenever and wherever they are practiced. ABS practitioners employ the first four life lessons in almost every successful intervention they implement. The next three life lessons connect directly to humanism, and some readers might consider these to be beyond the empirical, behavior-based domain of ABS. However, operational definitions were included with each of these humanistic lessons, making it possible to bring them to life with a behavior-focused intervention.

The humanistic principles of empathy and empowerment were defined with reference to specific verbal behavior—questions to ask and answers to interpret. The humanistic theory of self-determinism was explained with reference to specific applications of ABS that can activate and support the perceptions or person-states that determine self-motivation. Finally, I defined the crucial concept of self-transcendence in terms of interpersonal AC4P behavior and illustrated practical applications of Life Lessons 1 and 3 to increase self-motivated occurrences of AC4P behavior.

Gratitude and Positive Psychology

The use of positive consequences reflects an intersection of AC4P and positive psychology (Twohig et al., 2016). ABS practitioners use positive consequences to increase occurrences of desirable behavior, whereas positive psychologists apply positive consequences to boost subjective well-being (SWB). Consider, for example, the power of interpersonal gratitude. Substantial research has demonstrated that gratitude—the person-state of feeling grateful—significantly increases SWB or life satisfaction (e.g., Emmons & Crumpler, 2000; Wood et al., 2010). More specifically, research has shown that gratitude enhances positive emotions and activates a sense of interpersonal belonging, while decreasing distress and depression (Emmons, 2007; Emmons & McCullough, 2003; Seligman et al., 2005). In fact, people are more likely to help others—perform AC4P behavior—when they feel grateful (Emmons & Mishra, 2011) and when they receive gratitude (Grant & Gino, 2010).

So, how can people increase their perceptions of gratitude and experience the beneficial effects of this person-state? Offer a sincere statement of personal appreciation for another individual's desirable behavior (Life Lesson 1). Indeed, when you thank someone for the performance of AC4P behavior, you boost SWB and increase the probability of that behavior recurring.

Unfortunately, expressions of interpersonal gratitude are relatively uncommon beyond immediate family members. People are less likely to express gratitude at work than in any other place. In fact, 60% of more than 2,000 respondents in online interviews reported that they never or very rarely thank anyone at work; only 10% said they express interpersonal gratitude at work on a given day; and 74% said they never or rarely express gratitude to their boss or supervisor (Kaplan, 2012). More recently, Krista Geller (K. S. Geller & E. S. Geller, 2020) administered a safety-culture survey and conducted several focus-group discussions at four facilities of a major manufacturing company. A key conclusion from 615 survey respondents and 198 focus-group participants: Positive recognition for safety-related behavior was rare at the four plants, and the employees stated a sincere desire to receive positive recognition for their safety-relevant efforts.

A Reciprocal Benefit

When one person thanks another person for performing a desirable behavior, who experiences a boost in SWB? Obviously, the individual who receives recognition appreciates the positive interpersonal exchange and likely experiences an increase in SWB, competence, and self-motivation, while also feeling a positive connection with the benefactor—the one who expressed gratitude.

How does an expression of gratitude affect the benefactor? You know the answer because you have been there and experienced the reality of the expression "It's better to give than to receive." Giving recognition or showing appreciation enhances one's person-state of gratefulness and their SWB. For example, seminal research by Seligman et al. (2005) demonstrated a potent way to increase personal gratitude and SWB: Write someone a thank-you letter and then read it to that individual.

Recently, my students and I studied the motivational effects of writing a gratitude letter after VT discontinued in-person instruction halfway through spring semester 2020. While sheltering at home in response to the COVID-19 pandemic, VT students in two of my classes—a class on positive psychology and an experiential-learning research course—completed a 15-item mood-assessment survey (MAS) every morning and afternoon for 34 consecutive weekdays.

Each Wednesday, students in the positive psychology class ($N = 21$) wrote a gratitude letter to thank someone for AC4P behavior; the students in the research course ($N = 12$) did not receive this assignment. The students in both groups evidenced a consistent decrease in motivation as their quarantine progressed, but the students who wrote a weekly gratitude letter reported significantly higher motivation than those who did not write that letter, with the greatest group difference in motivation occurring on Wednesdays (Browning & Geller, 2021).

Diverse Domains of Psychological Science

Two prominent disciplines within psychological science have researched the power of positive consequences, but each promotes the use of positive consequences for a different purpose. As reviewed previously, ABS researchers and practitioners apply a positive consequence (e.g., a tangible reward or interpersonal supportive feedback)

following a target behavior in order to increase occurrences of that behavior. In contrast, the initiators of research in positive psychology (Seligman & Csikszentmihalyi, 2000) recommend applying positive consequences to enhance SWB, not to influence behavior. Thus, two domains of psychological science promote the delivery of a positive consequence like gratitude—one to improve behavior and the other to benefit attitude or mood state.

It is noteworthy that the concept of positive psychology actually originated with William James. His presidential address to the American Psychological Association in 1906 challenged psychologists to consider the subjective experience of an individual, and he advocated a combination of positivistic and phenomenological methodology to study the relationships between optimal human functioning and actual experience (Froh, 2004; Rathunde, 2001). Furthermore, the last chapter of Abraham Maslow's (1954) text on motivation and personality is titled "Toward a Positive Psychology." Thus, there are obvious historical, theoretical, and operational connections between positive psychology and humanism.

Let us consider some insights from ABS and positive psychology to improve safety, health, and human welfare. Given the behavioral and mood-state benefits of expressing interpersonal gratitude, it would be advantageous if the delivery of a positive consequence to increase occurrences of a desired behavior also included an expression of gratitude. For example, supportive feedback that acknowledges an individual's safe behavior could incorporate a statement of gratitude—"Your PPE use on that job is perfect, including the wearing of a mask to prevent COVID-19. Thank you so much for setting a safe and healthy example for others."

Similarly, a communication of sincere appreciation to boost SWB can have a behavioral effect on both the benefactor and the beneficiary—depending on how the gratitude is delivered and received. Does the verbal expression of gratitude specify the behavior for which the beneficiary is grateful? Is the beneficiary's "Thank you" followed by an appreciative "You're very welcome," or by the more common reply "No problem"? "No problem" implies the AC4P behavior required minimal effort and is not worthy of reciprocal AC4P behavior. To promote AC4P reciprocity or pay-it-forward behavior (Furrow & Geller, 2016; Gouldner, 1960), I suggest following "You're welcome" with "You would do the same for me."

Increasing Gratitude With ABS

Over the years, my students and I have evaluated systematic applications of behavioral science to increase overt expressions of interpersonal gratitude. For example, Roberts and Geller (1995) implemented an AC4P thank-you card (TYC) process to inspire certain employees at a manufacturing plant to express gratitude for the safety-related behavior of their coworkers. At "toolbox" meetings, area superintendents provided the work group with an overview of the AC4P Movement, offered examples of AC4P behavior for occupational safety, emphasized the importance of increasing such behavior, and then distributed five TYCs to each employee.

After observing AC4P behavior, participants wrote a description of the behavior on a TYC and then hand delivered the TYC to the AC4P coworker. The back of the TYC included examples of AC4P behavior, and the bottom of the TYC was perforated so it could be removed and redeemed by the recipient for food in the factory cafeteria (value

Fig. 3 The Front (Left Panels) and Back (Right Panels) of the Thank-You Card

= $0.55). Of the 65 employees, 12% delivered a total of 23 TYCs to coworkers for observed safe work behavior.

Boyce and Geller (2001) conducted two studies to examine the effectiveness of a TYC process for increasing proenvironmental and prosocial behavior among undergraduate psychology students. The TYC deliverers gave beneficiaries the top portion of the TYC depicted in Fig. 3—customized with the VT logo and relevant colors—to reward AC4P behavior. The gratitude benefactors removed and retained the bottom portion of the TYC, which included some questions for the TYC deliverers to answer after the gratitude interaction (i.e., some demographic questions and the reactions of the TYC benefactor and beneficiary).

Each study included an intervention to evaluate the impact of indirect or antecedent rewards (for pledging to hand out TYCs) versus direct response-contingent rewards (for fulfilling pledges to deliver TYCs). The results of the initial investigation showed that both indirect and direct rewards increased the number of TYC deliveries per participant from baseline, and both groups demonstrated a decrease in TYC deliveries when the intervention was withdrawn. Whereas the number of participants who delivered one or more TYCs was higher for the indirect-reward intervention in the second study, the number of TYCs delivered per participant was greater with direct response-contingent rewards.

TYCs at the Virginia Military Institute (VMI)

Keith Kline and his students customized the TYC for VMI and applied an A-B-A reversal design to evaluate the impact of an ABS intervention process designed to increase the delivery of TYCs throughout the campus (Kline et al., 2019). Professor Kline distributed the TYCs to the 59 cadets enrolled in one or more of his four psychology classes during fall semester 2018, and he implemented an intervention to encourage TYC deliveries that included behavioral prompting, modeling, and feedback. The cadets delivered 133 TYCs during the intervention phase, compared to 46 and 47 TYCs delivered during the baseline and withdrawal phases, respectively.

Student-to-Professor Gratitude

My research students and I have been promoting and evaluating the explicit expression of gratitude from VT students to their class instructors. These students take two TYCs to a class, and before the class begins, they give one of these TYCs to another student in the class. Then, both students complete the MAS. When the class ends, the two students approach the instructor independently and give them a TYC, along with a sincere statement of gratitude for their positive learning experiences in the course.

Immediately after delivering a TYC, the students return to a seat in the classroom and independently complete the MAS again. The research student collects the two mood surveys and the lower portion of the TYC from the other student and returns all four surveys and the bottom halves of the two TYCs to our university research center—the Center for Applied Behavior Systems (CABS).

From fall semester 2018 until the first half of spring semester 2020, 125 different students delivered 188 TYCs to 94 different class instructors. As hypothesized, the positive mood state or SWB of the TYC benefactors increased consistently after delivering a TYC, and the average increase in SWB for the research students and the other students who delivered a TYC was not statistically different (Callahan et al., 2019a, 2019b).

As depicted in Fig. 3, there is a place on the TYC to record the reaction of the TYC recipient and deliverer. As expected, every instructor who received a TYC expressed sincere appreciation, with many displaying positive surprise (or "shock"). Although some students reported nervousness or stress when delivering a TYC to their instructors, every student reported positive SWB (e.g., "It made my day so much better," "Made me feel good and lifted my spirits," "It made me feel thankful," "Feels good to make someone smile").

Pedestrian-to-Driver Gratitude

From fall semester 2018 until the COVID-19 pandemic influenced the termination of in-person VT classes in March 2020, the CABS research students systematically observed and recorded whether pedestrians crossing two explicitly marked campus crosswalks signaled a sign of gratitude to the vehicle drivers who had stopped for them. We employed A-B-A reversal and multiple-baseline designs to assess the impact of a simple prompting intervention. As depicted in Fig. 4, this intervention was a 2 × 3-foot (.61 x .914 meters) sign placed prominently at the pedestrian crosswalk with the message "Please Thank Drivers with a Wave."

Each research design demonstrated functional control of the prompting intervention, although the overall increase in expressions of gratitude during the intervention phase was not impressive. Specifically, the mean percentage of thank-you waves per 679 one-hour observation sessions was 15% of 127,728 pedestrians during baseline and 21% of 93,430 pedestrians crossing the street when the behavioral prompt was in place (Takemoto-Jennings et al., 2019a, 2019b). When VT students return for in-person classes, we plan to conduct follow-up research to determine whether modeling the desired behavior will increase occurrences of thank-you waves. However, a confederate waving a "thank you" in proximity to other pedestrians might actually decrease the probability of a thank-you wave from those observers, given the potential perception that one "thank you" is sufficient.

Summary

A beneficial integration of ABS and positive psychology was exemplified by reviewing the reciprocal benefits of performing a simple AC4P behavior—expressing sincere gratitude for an observed desirable act. Whether the purpose is to improve behavior or SWB, positive consequences accompanied with an expression of sincere gratitude benefit both behavior and mood state. Research from these two diverse domains of psychological science informs individuals how to enhance SWB and simultaneously increase occurrences of a relatively low-frequency behavior—simply acknowledge other people's desirable behavior with a statement of sincere appreciation or gratitude.

Fig. 4 A Research Student Recording Pedestrian Behavior During the Prompting Phase

Such verbal behavior is quite common between parents and their young children but comparatively rare among adults.

As reviewed here, my students, colleagues, and I have been exploring ways to enhance expressions of interpersonal gratitude on a college and university campus. From this ongoing applied research, three findings are notable: First, explicit expressions of gratitude from students to their instructors and from pedestrians to vehicle drivers who stop for them are infrequent. Second, an ABS intervention can increase the frequency of such desirable behavior. Third, an expression of gratitude increases the SWB of both the benefactor and the beneficiary.

A significant increase in reciprocal expressions of gratitude between supervisors and employees, teachers and students, parents and their adult offspring, police officers and citizens, and safety/health professionals and their clients would be a "game changer"— a significant step toward achieving an AC4P culture.

Putting It All Together

Americans are besieged by daunting societal problems. Thanks to the 24/7 news cycle, we probably know more than we would like to know about the nation's obesity and opioid epidemics, environmental damage from climate change, thousands if not millions of medical errors, Wall Street financial greed, online scams, cyberbullying, interpersonal bullying and drugs in schools, excessive gun violence, alcohol abuse, bankrupt cities, a deteriorating national infrastructure, political gridlock, and a worldwide deadly pandemic. This is obviously a time of significant adversity to our physical and mental health. Human behavior contributes to each of these societal issues and must be part of the solutions.

What if people were more empathic to the circumstances, opinions, and behaviors of others? Imagine the beneficial impact of a world with more interpersonal compassion and interdependent collaboration. This article addressed this possibility by introducing the AC4P Movement as a practical integration of behaviorism, humanism, and positive psychology aimed at improving interpersonal behavior related to the health, safety, and well-being of people worldwide (www.ac4p.org).

Skinner (1971) reminded us, "Our culture has provided the science and technology to save itself" (p. 181). Inspired by this assertion, I have collaborated with my graduate and undergraduate students for 50 years, exploring, implementing, and evaluating techniques to empower individuals in families, schools, corporations, communities, and government agencies to apply basic behavior-based interventions for promoting environmental sustainability (Geller et al., 1982, 1983), water conservation (Geller et al., 1983a), health care (Geller & Johnson, 2008; Johnson & Geller, 2016), vehicle safety-belt use (Geller, 1989; Geller et al., 1985, 1989), occupational health and safety (Geller, 1996, 2001; Geller & Geller, 2021), pay-it-forward behavior (Furrow et al., 2016), and transportation safety (Geller, 1998; Ludwig & Geller, 2001), as well as for preventing interpersonal conflict and bullying (Geller, 2020; McCarty & Geller, 2016; McCarty et al., 2016), alcohol abuse (Smith & Geller, 2016; Smith et al., 2016), credit card fraud (Downing & Geller, 2009, 2012), and community theft (Geller et al., 1983b). This and related research from other behavioral scientists has led to the development of practical evidence-based procedures to address the human dynamics of each of these problem domains. However, large-scale adoptions of ABS technology to improve public behavior have been rare.

It seems we need a unifying theme to connect diverse behavior-improvement interventions with the variety of societal concerns in order to achieve global dissemination and citizen engagement. The AC4P Movement provides a potential solution that activates and supports the self-reinforcing achievement of self-transcendence. How? It empowers individuals to be self-motivated to perform AC4P behavior and to increase occurrences of AC4P behavior from others as well. As they do this in their homes, schools, and work environments, AC4P cultures will evolve and mature in organizations and communities worldwide. A strategic integration of humanism and positive psychology with ABS would most certainly enhance the acceptance, dissemination, application, and benefits of interventions designed to increase the frequency of prosocial behavior, as well as boost individual happiness and well-being. With the vision of an AC4P culture, our mission is to make interpersonal acts of kindness and sincere expressions of gratitude a descriptive social norm—the new normal.

Disclosures

Conflict of interest   The author declares no conflict of interest.

Ethical approval   The data obtained in university classrooms were approved by the University Institutional Review Board and were collected to fulfill a university class assignment. All other data reported here were obtained from systematic observations of public behavior.

Informed consent   Informed consent was not required/relevant for either of these behavioral-observation situations.

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