

Self-Actualizing People in the 21st Century: Integration With Contemporary Theory and Research on Personality and Well-Being

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Abstract

More than 70 years ago, Maslow put forward an integrated theory of human motivation that still captures the public imagination. Still, integration with modern theory and research remains elusive. The current study aims to fill this gap in the psychological literature, linking Maslow's theory to contemporary theory and research on personality and well-being. Toward this aim, a new 30-item "Characteristics of Self-Actualization Scale (CSAS)" was developed. Scale validation showed that 10 characteristics of self-actualizing people as proposed by Maslow load on a general factor of self-actualization and demonstrate external validity. Those reporting more characteristics of self-actualization were more motivated by growth, exploration, and love of humanity than the fulfillment of deficiencies in basic needs. The characteristics of self-actualization were also associated with greater well-being across a number of indicators of well-being, including greater life satisfaction, self-acceptance, positive relations, environmental mastery, personal growth, autonomy, purpose in life, and self-transcendent

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experiences. Self-actualization scores also predicted work-related outcomes and creativity across multiple domains of achievement. The results provide support for Maslow's proposed characteristics of self-actualization and basic motivational framework, bringing the concept of self-actualization so frequently discussed by the founding humanistic psychologists firmly into the 21st century.

Keywords

Abraham Maslow, self-actualization, motivation, personality, Big Five, cybernetics, metatraits, well-being, self-transcendence

Every human being has both sets of forces within [them]. One set clings to safety and defensiveness out of fear, tending to regress backward, hanging on to the past . . . afraid to take chances, afraid to jeopardize what [one] already has, afraid of independence, freedom and separateness. The other set of forces impels [one] forward toward wholeness of Self and uniqueness of Self, toward full functioning of all [one's] capacities, toward confidence in the face of the external world at the same time that [one] can accept [one's] deepest, real, unconscious Self . . . This basic dilemma or conflict between the defensive forces and the growth trends I conceive to be existential, imbedded in the deepest nature of the human being, now and forever into the future.

—Abraham Maslow (1962/1998)

There is now emerging over the horizon a new conception of human sickness and of human health, a psychology that I find so thrilling and so full of wonderful possibilities . . .

—Abraham Maslow (1962/1998)

On June 8, 1970, Abraham Maslow suffered a fatal heart attack as he jogged by the pool at his home in Menlo Park, California, leaving behind a treasure trove of theories and scattered ideas. Of all of his many theories, his most popular, both within psychology and with the general public, is his theory of motivation (Maslow, 1943, 1954). According to this theory, human needs form an "integrated hierarchy," in which basic needs such as safety, belonging, connection, and self-esteem must be satisfied to a certain degree for one to move toward becoming all that one is capable of becoming: *self-actualization*. While the precise ordering and importance of Maslow's proposed needs demonstrate significant cultural and individual variation (Sheldon, Elliot, Kim, & Kasser, 2001; Tay & Diener, 2011; Oishi,

Diener, Lucas, & Suh, 1999), one aspect of Maslow's theory that still holds promise is his notion of deficiency versus growth motivation (Maslow, 1962/1998).

According to Maslow, those with deficiency motivation are more motivated by their *lack* of satisfaction and are defensive in reaction to threats to their basic needs. In contrast, those who are motivated by growth are driven more by exploration, creativity, and love for all of humankind (what Maslow referred to as B-love, or Being-Love). According to Maslow, self-actualized individuals are those who have satisfied their basic needs to a reasonable enough degree that they are not driven by the intense need to fulfill the deprivation of their basic needs, and they are therefore freed up to focus on health, growth, wholeness, integration, and the "real problems of life" (Maslow, 1962/1998). In this article, I will argue that this framework for human motivation is strikingly supported by modern-day theory and research on personality and well-being, and I will offer empirical data to support my contention.

Self-Actualization and Personality

Another aspect of Maslow's (1950) theory that still holds promise is his proposed list of the characteristics of self-actualizing people. From its inception, the field of humanistic psychology has been deeply rooted in the field of personality psychology. Indeed, one of the founders of personality psychology, Gordon Allport, introduced the phrase "humanistic psychology" to the study of personality during the 1930s, and he contributed to the concept of the "whole person" and the importance of personality integration. As McAdams and Pals (2006) note, the founders of personality psychology (Allport, 1937; Murray, 1938) had as their mission to provide "an integrative framework for understanding the whole person" (p. 204).

Recently, personality psychologists have returned to the origins of the field, furthering our understanding of the whole person (DeYoung, 2015; Fleeson, 2012; McAdams & Pals, 2006; Molenaar & Campbell, 2009; Sheldon, 2004; Sheldon, Cheng, & Hilpert, 2011). The most prominent personality traits investigated in contemporary personality psychology are the "Big Five"—Extraversion, Neuroticism, Agreeableness, Conscientiousness, and Openness to Experience—which have been shown to account for most of the covariance among more specific personality traits (John, Naumann, & Soto, 2008; McCrae & Costa, 2008).

While these Big Five traits have been studied intensively since the 90s, more recently, personality psychologists have emphasized that they form

part of a larger hierarchy. At the highest level of the hierarchy, there exist two “metatraits,” which have been labeled by some researchers as “Stability” and “Plasticity” (DeYoung, 2006; DeYoung, Peterson, & Higgins, 2002; Digman, 1997). Stability is hypothesized to be primarily driven by the neurotransmitter serotonin, whereas Plasticity is hypothesized to be primarily driven by the neurotransmitter dopamine (DeYoung, 2006; DeYoung, 2013). This appears to be the highest level of the personality hierarchy; there does not appear to be a “general factor of personality” above them (Revelle & Wilt, 2013).

The two metatraits of personality—Stability and Plasticity—are strikingly similar to Maslow’s (1962/1998) distinction between deficiency needs and growth needs, and can be tied to what is required for optimal cybernetic functioning (Carver & Scheier, 1998; DeYoung, 2015; DeYoung & Weisberg, 2018; Wiener, 1961). While Maslow never couched his theory within a cybernetic framework, Maslow (1962/1998) argued that defensive behaviors and neuroses can get in the way of growth and must be properly regulated for one to fully realize one’s potentialities. Within the cybernetic Big Five theory (CB5T; DeYoung, 2015), Stability is defined as the “protection of goals, interpretations, and strategies from disruption by impulses.” Consistent with this definition, the most strongly correlated personality items relating to Stability (which can be thought of as the opposite of deficiency) include a mix of *disruptive impulsivity* (“get out of control, “am self-destructive”), *nonconstructive thinking* (“have a dark outlook on the future,” “often express doubts”), and a *lack of authenticity and meaning* (“feel that my life lacks direction,” “act or feel in a way that does not fit me”).¹ According to DeYoung (2015), low levels of Stability can “cause difficulty in developing and maintaining effective characteristic adaptations, due to frequent disruption” (p. 49). In the parlance of humanistic psychology, this can be translated to “instability can disrupt the pursuit of self-actualization.”

In contrast, CB5T defines Plasticity as the general tendency toward exploration, with exploration defined as “the creation of new goals, interpretations, and strategies.” Consistent with this definition, the personality items most strongly correlated with Plasticity (see Table 1, DeYoung, 2010) closely resemble Maslow’s list of the characteristics of self-actualizing people and include a mix of *growth* (“look forward to the opportunity to learn and grow”), *curiosity* (“am interested in many things”), *expressivity* (“have a strong personality,” “express myself easily”), and *creativity* (“am an original thinker,” “am able to come up with new and different ideas”).

Those scoring high in Plasticity clearly have a strong growth motivation and often seek out and actively engage with the unknown. Indeed, increases in the unknown need not be threatening but can also be promising, as everything good as well as everything bad emerges initially from the unknown (DeYoung, 2013; Peterson, 1999; Schwartenbeck, FitzGerald, Dolan, & Friston, 2013). Maslow (1962/1998) argued that self-actualized individuals are more likely to recognize the potential delights of exploring the unknown: “Our healthy subjects are generally unthreatened and unfrightened by the unknown . . . They accept it, are comfortable with it, and, often are even *more* attracted by it than by the known.” Of course, exploration can also be disruptive to self-actualization (e.g., Plasticity has been linked to externalizing behavior; see DeYoung, Peterson, Seguin, Pihl, & Tremblay, 2008), which is why both Stability *and* Plasticity are necessary for becoming an integrated whole person.

Self-Actualization and Well-Being

Maslow’s theory also has implications for the modern investigation of well-being. Indeed, Maslow (1962/1998) spoke of the strong relationship between self-actualization and “psychological health” (even though Maslow preferred the terms *self-actualization* and *full-humanness* over the notion of psychological health). One of the most prominent frameworks in the study of well-being is an investigation of life satisfaction (Diener, Emmons, Larsen, & Griffin, 1985; Pavot & Diener, 2008). This framework looks at the subjective evaluation of one’s overall satisfaction with life. Life satisfaction is considered an important component of subjective well-being (Diener, Suh, Lucas, & Smith, 1999), along with the presence of “positive” emotions in one’s life (e.g., joy, enthusiasm, and contentness), and the minimization of “negative” emotions (e.g., anxiety, depression, and emotional volatility).

Ryff’s (1989) model of “psychological well-being” is even more relevant to Maslow’s conceptualization of self-actualization. After all, Maslow did not promote happiness as the goal in life but viewed happiness as an epiphenomenon of growth (1962/1998). Based on a literature review of past notions of well-being (including the works of Maslow, Carl Rogers, Gordon Allport, Carl Jung, and Erik Erikson), Ryff argued that the life satisfaction approach leaves out crucial aspects of well-being. In particular, Ryff proposed the following additional facets of well-being: self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. In support of her hypothesis,

positive relations, autonomy, purpose in life, and personal growth were not strongly related to prior assessments of well-being.

Another seminal contribution to the science of well-being is Self-Determination Theory (Ryan & Deci, 2000). Partly inspired by Maslow's theory of human motivation, Ryan and Deci (2000) empirically derived three core human needs: competence, relatedness, and autonomy. They argue that each of these needs "appear to be essential for facilitating optimal functioning of the natural propensities for growth and integration, as well as for constructive social development and personal well-being (p. 68)." Their research has shown that the fulfillment of these needs is indeed associated with an autonomy motivation, healthy social development, and greater well-being.

A more recent newcomer in the investigation of the science of well-being is curiosity (Kashdan & Silvia, 2009; Kashdan, Stikma, & McKnight, 2017). Curiosity can be defined as "the recognition, pursuit, and intense desire to explore novel, challenging, and uncertain events" (Kashdan & Silvia, 2009, p. 368). The drive for curiosity has clear linkages to the Plasticity metatrait of the Big Five, as well as to Maslow's argument that self-actualizing individuals are attracted to the unknown. Kashdan et al. (2017) recently validated a new scale of curiosity that consists of five dimensions of curiosity: Joyous Exploration, Deprivation Sensitivity, Stress Tolerance, Social Curiosity, and Thrill Seeking. Joyous Exploration and Stress Tolerance showed the strongest linkages to well-being, further suggesting the importance of both Stability and Plasticity for optimal well-being. Joyous Exploration, however, showed the "strongest links to believing that a good life is a function of personal growth and contributing to others" (Kashdan et al., 2017, p. 144). Therefore, this facet of curiosity may have the greatest relevance to Maslow's conceptualization of self-actualization.

Finally, another recent newcomer in the investigation of the science of well-being is *self-transcendence* (although discussions of self-transcendence are certainly not a newcomer in the history of psychology; e.g., James, 1902). In recent years, researchers have begun to empirically chart out the psychological and neurobiological terrain of "self-transcendent experience," which can be defined as "transient mental states marked by decreased self-salience and increased feelings of connectedness" (Yaden, Haidt, Hood, Vago, & Newberg, 2017, p. 143). Recent research supports the notion that self-transcendent experiences can play a central role in supporting mental health and well-being. In the current study, a new scale that has recently been developed to measure a tendency toward self-transcendent experiences (Yaden, in preparation) is assessed in its relationship with the characteristics

of self-actualization. The prediction is that self-actualization will be substantially related to self-transcendence, just as Maslow predicted toward the end of his life (Maslow, 1971).

Current Study

The current study has two main aims. The main aim is to show empirically, using a variety of contemporary measures of personality and well-being, that the characteristics of self-actualization that Maslow (1950) proposed almost 70 years ago are indeed significantly related to both the absence of deprivation as well as the abundance of health, growth, and well-being. The ancillary aim of the current study, which is required to demonstrate the main aim, is to produce a new scale to measure the characteristics of self-actualization as proposed by Maslow (1950). For the purposes of this study, such a scale must include characteristics that (1) substantially load on the general factor of self-actualization and (2) demonstrate external validity. While Maslow (1950) proposed about 17 characteristics of self-actualizing people, it's an empirical question which of his proposed characteristics form a reliable subscale, and whether they form a coherent general factor of self-actualization. In constructing the scale, I initially drew directly from Maslow's (1950) list, using his original language, but made the necessary adjustments to the items to ensure that the final scale presented in this article was psychometrically sound as well as central to the general factor of self-actualization.

While scales already exist that attempt to measure self-actualization (see Crandall & Jones, 1991; Jones & Crandall, 1986; Lefrancois, Leclerc, Dube, Hebert, & Gaulin, 1997; Shostrom, 1974, Shostrom, 1975,; Sumerlin, 1995; Sumerlin & Bundrick, 1996), the earlier scales have been criticized for lacking acceptable psychometric properties as well as lacking a common theory (e.g., Burwick & Knapp, 1991; Ray, 1984; Weiss, 1991; Whitson & Olczak, 1991). Among more recent attempts to measure the characteristics of self-actualization (Lefrancois et al., 1997; Sumerlin, 1995; Sumerlin & Bundrick, 1996), only one scale (Sumerlin & Bundrick, 1996) was a direct attempt to capture the characteristics of self-actualization based directly on Maslow's writings. While that scale does show improved psychometric properties compared with earlier scales, the loadings of the subscales on the general "Core Self-Actualization" factor were small to moderate (.27 to .59), with only two subscales (capacity and purpose) having a loading greater than .60 on the general factor. The current study will attempt to produce a scale with improved loadings on the general factor, and with external validity, as measured by work-related

outcomes (e.g., work performance and work satisfaction) and creativity in fields that allow for strong creative expression (e.g., visual arts, music, scientific discovery).

By creating a reliable and valid scale that measures the characteristics of self-actualization as put forward by Maslow (1950), and linking it to contemporary research and theory in the study of personality and well-being, I hope the current study helps bring Maslow and the concept of self-actualization so frequently discussed by the founding humanistic psychologists firmly into the 21st century.

Method

Participants

A total of 522 participants were recruited from Amazon's Mechanical Turk. The study received institutional review board approval from the University of Pennsylvania. While most participants (72%) reported being White, a variety of other races and ethnicities were also reported (*Asian* = 88, *Hispanic* or *Latino* = 49, *Black* = 44), and there was an even gender split (*Male* = 267, *Female* = 262). The average age was 36.6 years ($SD = 11.5$), with a range of 18 to 74 years. All tests had an N of 522, with the exception of the Balanced Measure of Psychological Needs Scale (BMPNS), which had an N of 486 as it was added shortly after the study initially launched. This didn't affect the results, however, since the scale was added to the end of the study.

Measures and Procedure

Participants completed a 25- to 30-minute online survey administered via Qualtrics. Most scales were on a 5-point Likert-type scale, ranging from 1 = *disagree strongly* to 5 = *agree strongly*, except for the demographic questions, which had more relevant response options. Most scales have demonstrated prior reliability and validity (see the citations associated with each scale for further information about the prior reliability and validity of each scale).

Characteristics of Self-Actualization Scale. The Characteristics of Self-Actualization Scale (CSAS) is a 30-item measure that captures 10 interrelated characteristics of self-actualization (see Table 1), adapted directly from Maslow's (1950) list of characteristics of self-actualizing people.

Table 1. Characteristics of Self-Actualization Scale ($N = 522$).**Continued freshness of appreciation ($\alpha = .77$)**

I can appreciate again and again, freshly and naively, the basic goods of life, with awe, pleasure, wonder, and even ecstasy, however stale these experiences may have become to others.

A sunset looks just as beautiful every time I see one.

I often feel gratitude for the good in my life no matter how many times I encounter it.

Acceptance ($\alpha = .71$)

I accept all sides of myself, including my shortcomings.

I accept all of my quirks and desires without shame or apology.

I have unconditional acceptance for people and their unique quirks and desires.

Authenticity ($\alpha = .74$)

I can maintain my dignity and integrity even in environments and situations that are undignified.

I can stay true to my core values even in environments that challenge them.

I take responsibility for my actions.

Equanimity ($\alpha = .79$)

I am often undisturbed and unruffled by things that seem to bother most people.

I am relatively stable in the face of hard knocks, blows, deprivations, and frustrations.

I tend to take life's inevitable ups and downs with grace, acceptance, and equanimity.

Purpose ($\alpha = .86$)

I feel a great responsibility and duty to accomplish a particular mission in life.

I feel as though I have some important task to fulfill in this lifetime.

I have a purpose in life that will help the good of humankind.

Efficient perception of reality ($\alpha = .65$)

I often have a clear perception of reality.

I am always trying to get at the real truth about people and nature.

I try to get as close as I can to the reality of the world.

Humanitarianism ($\alpha = .82$)

I feel a deep sense of identification with all human beings.

I feel a great deal of sympathy and affection for all human beings.

I have a genuine desire to help the human race.

Peak experiences ($\alpha = .77$)

I often have experiences in which I feel new horizons and possibilities opening up for myself and others.

I often have experiences in which I feel a profound transcendence of my selfish concerns.

I often have experiences in which I feel one with all people and things on this planet.

Good moral intuition ($\alpha = .72$)

I trust my moral decisions without having to deliberate too much about them.

I have a strong sense of right and wrong in my daily life.

I can tell "deep down" right away when I've done something wrong.

Creative spirit ($\alpha = .77$)

I have a generally creative spirit that touches everything I do.

I bring a generally creative attitude to all of my work.

I am often in touch with my childlike spontaneity.

The scale underwent rigorous pilot testing, with the initial pool consisting of 91 items (see the appendix for the full list of items). In the revised scale, some of the items were modified from Maslow's original language

to improve comprehensibility and reliability, and the names of some of the characteristics were changed from Maslow's original language to be more comprehensible to modern day psychologists and the general public. Furthermore, the following characteristics were excluded from the revised scale because they demonstrated low reliability, low loadings on the general factor, or low coherence in the exploratory factor analysis: (1) *The Quality of Detachment, The Need for Privacy*; (2) *The Imperfections of Self-Actualizing People*; (3) *Resolution of Dichotomies*; (4) *Philosophical, Unhostile Sense of Humor*; (5) *Interpersonal Relations*; and (6) *The Democratic Character Structure*. The rest of Maslow's (1950) proposed characteristics were captured by the scale, although in the following instances, characteristics were combined to eliminate redundancies: *Spontaneity* and *Creativeness* were combined to form *Creative Spirit*, and *Autonomy* and *Resistance to Enculturation* were combined to form *Authenticity*. See the appendix for a more detailed description of the pilot study.

The scale was scored on a 5-point Likert-type scale, with possible scores ranging from 0 to 150. Actual scores ranged from 59 to 150 ($M = 114.5$, $SD = 16.9$). The scale was normally distributed (skewness = $-.38$, kurtosis = $.02$), and the reliability of the scale was excellent ($\alpha = .92$). All 30 items loaded substantially on the general factor (see Table 2), suggesting that they are relevant to general factor of self-actualization. The reliability of the subscales ranged from $\alpha = .65$ (*Efficient Perception of Reality*) to $\alpha = .86$ (*Purpose*), with 9 out of the 10 subscales demonstrating a reliability of $>.70$.

Table 3 shows the 10-factor exploratory factor analysis using principal axis factoring with a direct oblimin rotation. All items that were hypothesized to load on each factor based on Maslow's (1950) theory loaded $>.40$ on their respective factor, and confirmatory factor analysis verified that these 10 factors demonstrated an acceptable fit to the data— $\chi^2(360) = 1082.56$, $p < .001$; comparative fit index = $.90$; root mean square error of approximation = $.06$, 90% CI = $[.06, .07]$; standardized root mean residual = $.06$. The 10 factors explained 72% of the total variance among all of the items on the scale, and all 10 factors loaded substantially on the first principle component, which explained 40.3% of the total variance among the items (see Table 4). Taken together, these results suggest that all 10 factors on the CSAS are highly relevant to the general factor of self-actualization.

Metatraits. Stability and Plasticity were measured by taking the strongest International Personality Item Pool correlates of each metatrait of the Big Five (see Table 1, DeYoung, 2010). Example items for Stability ($\alpha = .93$) include “get out of control” (reverse), “am self-destructive” (reverse), and

Table 2. Loadings of All Items on First Principal Component (*N* = 522).

Item	Loading
I often have experiences in which I feel new horizons and possibilities opening up for myself and for others.	.70
I often feel gratitude for the good in my life no matter how many times I encounter it.	.67
I can appreciate again and again, freshly and naively, the basic goods of life, with awe, pleasure67
I feel a deep sense of identification with all human beings.	.64
I feel a great deal of sympathy and affection for all human beings.	.63
I tend to take life's inevitable ups and downs with grace, acceptance, and equanimity.	.61
I have a genuine desire to help the human race.	.60
I can maintain my dignity and integrity even in environments and situations that are undignified.	.59
I feel a great responsibility and duty to accomplish a particular mission in life.	.58
I have a purpose in life that will help the good of humankind.	.58
I often have experiences in which I feel one with all people and things on this planet.	.58
A sunset looks just as beautiful every time I see one.	.58
I accept all sides of myself, including my shortcomings.	.58
I am relatively stable in the face of hard knocks, blows, deprivations, and frustrations.	.57
I accept all of my quirks and desires without shame or apology.	.56
I feel as though I have some important task to fulfill in this lifetime.	.54
I bring a generally creative attitude to all of my work.	.54
I can stay true to my core values even in environments that challenge them.	.53
I have unconditional acceptance for people and their unique quirks and desires.	.52
I have a generally creative spirit that touches everything I do.	.51
I often have experiences in which I feel a profound transcendence of my selfish concerns.	.50
I take responsibility for my actions.	.48
I have a strong sense of right and wrong in my daily life.	.48
I am often in touch with my childlike spontaneity.	.47
I try to get as close as I can to the reality of the world.	.46
I trust my moral decisions without having to deliberate too much about them.	.44
I am always trying to get at the real truth about people and nature.	.42
I often have a clear perception of reality.	.38
I am often undisturbed and unruffled by things that seem to bother most people.	.37
I can tell "deep down" right away when I've done something wrong.	.36

“grumble about things” (reverse). Example items for Plasticity ($\alpha = .92$) include “have a strong personality,” “express myself easily,” and “am able to come up with new and different ideas.”

Table 3. Exploratory Factor Analysis of Self-Actualization Items ($N = 522$) Using Principal Axis Factoring With Direct Oblimin Rotation.

Item	1	2	3	4	5	6	7	8	9	10
A sunset looks just as beautiful every time I see one.	.77	.45	.20	.19	.22	.25	.28	.29	.37	.26
I can appreciate again and again, freshly and naively, the basic goods of life, with awe, pleasure, wonder, and even ecstasy, however stale these experiences may have become to others.	.72	.22	.31	.39	.34	.25	.39	.36	.27	.44
I often feel gratitude for the good in my life no matter how many times I encounter it.	.68	.48	.32	.30	.20	.31	.34	.37	.50	.26
I have a strong sense of right and wrong in my daily life.	.41	.72	.15	.19	.03	.38	.20	.21	.46	.07
I trust my moral decisions without having to deliberate too much about them.	.33	.64	.30	.12	.03	.25	.18	.24	.45	.02
I can tell “deep down” right away when I’ve done something wrong.	.35	.64	.12	.05	-.02	.37	.16	.15	.38	-.07
I tend to take life’s inevitable ups and downs with grace, acceptance, and equanimity.	.31	.23	.84	.29	.23	.25	.18	.51	.43	.25
I am relatively stable in the face of hard knocks, blows, deprivations, and frustrations.	.29	.31	.83	.25	.18	.22	.14	.37	.42	.24
I am often undisturbed and unruffled by things that seem to bother most people.	.15	.04	.61	.12	.23	.08	.08	.32	.17	.23
I feel as though I have some important task to fulfill in this lifetime.	.27	.11	.18	.86	.28	.25	.28	.18	.17	.40
I feel a great responsibility and duty to accomplish a particular mission in life.	.33	.13	.25	.84	.30	.30	.27	.18	.24	.41
I have a purpose in life that will help the good of humankind.	.27	.01	.24	.76	.28	.29	.44	.19	.18	.53
I have a generally creative spirit that touches everything I do.	.32	-.01	.27	.34	.88	.20	.19	.32	.13	.38
I bring a generally creative attitude to all of my work.	.34	.05	.31	.30	.82	.26	.22	.35	.16	.32
I am often in touch with my childlike spontaneity.	.43	.01	.15	.28	.50	.17	.28	.34	.05	.37
I try to get as close as I can to the reality of the world.	.25	.34	.20	.23	.12	.77	.22	.20	.34	.13

(continued)

Table 3. (continued)

Item	1	2	3	4	5	6	7	8	9	10
I am always trying to get at the real truth about people and nature.	.24	.26	.12	.30	.23	.72	.15	.10	.20	.18
I feel a great deal of sympathy and affection for all human beings.	.46	.29	.20	.36	.21	.24	.87	.32	.27	.40
I have a genuine desire to help the human race.	.42	.21	.15	.42	.24	.35	.73	.17	.27	.42
I accept all of my quirks and desires without shame or apology.	.34	.16	.45	.22	.39	.180	.21	.83	.28	.23
I accept all sides of myself, including my shortcomings.	.37	.30	.45	.24	.17	.24	.19	.67	.41	.26
I have unconditional acceptance for people and their unique quirks and desires.	.38	.19	.24	.17	.30	.12	.46	.52	.25	.26
I can stay true to my core values even in environments that challenge them.	.38	.48	.30	.20	.16	.31	.20	.30	.80	.01
I can maintain my dignity and integrity even in environments and situations that are undignified.	.36	.40	.47	.28	.13	.28	.25	.39	.67	.16
I take responsibility for my actions.	.38	.54	.27	.15	.02	.41	.14	.26	.62	.00
I often have a clear perception of reality.	.27	.50	.30	.06	.00	.40	.07	.28	.51	-.12
I often have experiences in which I feel one with all people and things on this planet.	.37	-.07	.30	.45	.37	.14	.44	.29	.08	.83
I feel a deep sense of identification with all human beings.	.40	.09	.30	.46	.30	.24	.66	.27	.16	.69
I often have experiences in which I feel a profound transcendence of my selfish concerns.	.36	.04	.23	.40	.33	.20	.27	.21	.01	.68
I often have experiences in which I feel new horizons and possibilities opening up for myself and others.	.55	.23	.39	.47	.40	.28	.33	.39	.25	.59

Note. All items hypothesized to load on each factor are in boldface. $\lambda_1 = 8.9$ (30% variance explained), $\lambda_2 = 3.2$ (10.6% variance explained), $\lambda_3 = 2.0$ (6.7% variance explained), $\lambda_4 = 1.5$ (5% variance explained), $\lambda_5 = 1.4$ (4.7% variance explained), $\lambda_6 = 1.1$ (3.7% variance explained), $\lambda_7 = 1.03$ (3.4% variance explained), $\lambda_8 = .89$ (3.0% variance explained), $\lambda_9 = .81$ (2.7% variance explained), $\lambda_{10} = .74$ (2.5% variance explained). Total variance explained = 72%.

Table 4. Factor Loadings of Subscales on First Principal Component ($N = 522$).

Subscale	Factor
Continued freshness of appreciation	.81
Acceptance	.69
Authenticity	.68
Equanimity	.63
Purpose	.62
Efficient perception of reality	.61
Humanitarianism	.60
Peak experiences	.59
Good moral intuition	.57
Creative spirit	.52

Note. Extraction method: principal component analysis; first principal component eigenvalue 4.0, % of variance explained 40.3%.

The Big Five Inventory–2. The Big Five Inventory–2 (BFI-2; Soto & John, 2017) is a 60-item scale that measures three facets for each Big Five domain of personality: Extraversion ($\alpha = .85$), Agreeableness ($\alpha = .86$), Conscientiousness ($\alpha = .89$), Neuroticism ($\alpha = .92$), and Openness to Experience ($\alpha = .88$).

Five-Dimensional Curiosity Scale. The Five-Dimensional Curiosity Scale (Kashdan et al., 2017) measures five dimensions of curiosity: Joyous Exploration ($\alpha = .84$), Deprivation Sensitivity ($\alpha = .79$), Stress Tolerance ($\alpha = .89$), Social Curiosity ($\alpha = .75$), and Thrill Seeking ($\alpha = .83$).

Satisfaction with Life Scale. The Satisfaction with Life Scale (Diener et al., 1985) is a 5-item measure of life satisfaction (e.g., “In most ways my life is close to my ideal”); $\alpha = .92$).

Psychological Well-Being Scale. The Psychological Well-Being Scale (Ryff, 1989) measures five dimensions of psychological well-being: Self-Acceptance (.88), Positive Relations with Others ($\alpha = .83$), Autonomy ($\alpha = .76$), Environmental Mastery ($\alpha = .87$), Purpose in Life ($\alpha = .71$), and Personal Growth ($\alpha = .77$).

Balanced Measure of Psychological Needs Scale. The Balanced Measure of Psychological Needs Scale (BMPNS; Sheldon, 2012) measures both satisfaction and dissatisfaction of the three basic needs proposed by Self-Determination Theory (Ryan & Deci, 2000): Relatedness (Satisfaction $\alpha = .83$, Dissatisfaction $\alpha = .66$), Competence (Satisfaction $\alpha = .77$, Dissatisfaction $\alpha = .60$), and Autonomy (Satisfaction $\alpha = .79$, Dissatisfaction $\alpha = .71$). Each need was calculated by subtracting dissatisfaction scores from satisfaction scores.

Self-Transcendent Experience Scale (STE-S; Yaden, in preparation)—Trait Version. This scale measures the extent to which an individual tends to have self-transcendent experiences. Participants responded to 10 items about aspects of their experience across two factors: self-loss (e.g., “I often have experiences in which my sense of self completely fades away,” $\alpha = .94$) and unity (“I often have experiences of feeling entirely connected to humanity,” $\alpha = .94$).

Work-Related Outcomes. A number of work-related variables were included to assess external validity: *job level* (intern/trainee, entry level, manager, director/leader, senior leader, executive), *job performance appraisal* (“rating given at the time of last performance appraisal at work,” 5-point scale ranging from *unsatisfactory* to *excellent*), *self-appraisal job performance* (5-point scale ranging from *unsatisfactory* to *excellent*), and *job satisfaction* (7-point scale, ranging from *extremely dissatisfied* to *extremely satisfied*).

Creativity. Creativity was measured through the Creative Achievement Questionnaire (CAQ; Carson, Peterson, & Higgins, 2005), which assesses creative achievements across 10 domains: visual arts, music, dance, architectural design, creative writing, humor, inventions, scientific discovery, theater and film, and culinary arts. In the current study, music was split into music performance and music composition, making for 11 domains in total. After each participant selected his or her level of creative achievement for each domain among a list of seven levels, participants were asked to select whether any of the following three statements applied to them: “One of the first things people mention about me when introducing me to others is my creative ability in the above areas,” “People regularly comment on my ‘artistic’ temperament,” and “People regularly accuse me of being an ‘absent-minded professor’ type.” Prior to the selection of creative achievements, participants were also asked to select from a list of 13 domains the areas in which they feel they have more talent, ability, or training than the average person. The domains included visual arts, music, dance, individual sports, team sports, architectural design, entrepreneurial ventures, creative writing, humor, inventions, scientific inquiry, theater and film, and culinary arts.

Results

Demographics

Self-actualization was not significantly correlated with age, education, race, ethnicity, college GPA, or childhood income. No significant gender differences were found in self-actualization. Self-actualization was significantly correlated with number of close friends ($r = .25, p < .001$), and more weakly, with

Table 5. Correlations With Personality.

Metatraits	
<i>Stability</i>	.38**
<i>Plasticity</i>	.58**
Big Five	
<i>Extraversion</i>	.50**
Social engagement	.33**
Assertiveness	.34**
Energy level	.56**
<i>Agreeableness</i>	.49**
Compassion	.40**
Respectfulness	.34**
Acceptance of others	.49**
<i>Conscientiousness</i>	.44**
Organization	.31**
Productiveness	.46**
Responsibility	.40**
<i>Neuroticism</i>	-.49**
Anxiety	-.39**
Depression	-.53**
Emotional volatility	-.41**
<i>Openness to experience</i>	.37**
Aesthetic sensitivity	.30**
Intellectual curiosity	.26**
Creative imagination	.40**

* $p < .05$. ** $p < .01$.

number of romantic relationships in one's life ($r = .12, p < .01$), income during the past 12 months ($r = .09, p < .05$, Spearman's rho rank correlation), less of a history of diagnosed mental illness ($r = -.16, p < .001$), and less of a family history of mental illness ($r = -.13, p < .01$).

Personality

Self-actualization was significantly correlated with both metatraits of the Big Five (*Stability* and *Plasticity*), as well as all Big Five personality traits and their facets (see Table 5).

In a regression model with both metatraits considered at the same time, both *Stability* ($\beta = .23, p < .001$) and *Plasticity* ($\beta = .51, p < .001$) independently predicted self-actualization. In a regression model considering all Big Five traits at the same time, *Extraversion* ($\beta = .27, p < .001$), *Agreeableness*

Table 6. Correlations With Curiosity ($N = 522$).

Joyous Exploration	.56**
Deprivation Sensitivity	.32**
Stress Tolerance	.30**
Social Curiosity	.24**
Thrill Seeking	.31**

* $p < .05$. ** $p < .01$.

($\beta = .24, p < .001$), *Emotional Stability* ($\beta = -.18, p < .001$), and *Openness to Experience* ($\beta = .13, p < .001$) independently predicted self-actualization.

In a regression model considering all 15 Big Five facets at the same time, *Energy Level* ($\beta = .21, p < .001$), *lower levels of Depression* ($\beta = .17, p < .01$), *Acceptance of Others* ($\beta = .15, p < .01$), *Creative Imagination* ($\beta = .13, p < .05$), *Compassion* ($\beta = .11, p < .05$), *Productiveness* ($\beta = .11, p < .05$), *Aesthetic Sensitivity* ($\beta = .10, p < .05$), and *Assertiveness* ($\beta = .09, p < .05$) each independently predicted self-actualization. There was also a small independent effect of *Intellectual Curiosity* ($\beta = -.11, p < .05$) on self-actualization in the *negative* direction, which was most likely due to suppression from the other measures of openness to experience (self-actualization was significantly positively correlated with intellectual curiosity at the zero-order level).

Curiosity

Self-actualization was significantly correlated with all subscales of curiosity (see Table 6).

In a regression model, *Joyous Exploration* ($\beta = .43, p < .001$), *Stress Tolerance* ($\beta = .15, p < .001$), *Social Curiosity* ($\beta = .12, p < .001$), and *Thrill Seeking* ($\beta = .11, p < .05$) independently predicted self-actualization. *Deprivation Sensitivity* was not independently related to self-actualization. Also note that the independent prediction of Joyous Exploration on self-actualization was nearly three times the strength of the prediction of the other curiosity subscales.

Well-Being

Self-actualization was significantly correlated with all measures of life satisfaction and psychological well-being (see Table 7).

Looking at a regression with all of the measures of well-being in the same model, *Life Satisfaction* ($\beta = .28, p < .001$), *Personal Growth* ($\beta = .23, p < .001$), *Positive Relations* ($\beta = .18, p < .01$), *Self-Acceptance* ($\beta = .18,$

Table 7. Correlations With Well-Being ($N = 522$).

Life Satisfaction	.49**
<i>Psychological Well-Being</i>	
Autonomy	.36**
Environmental Mastery	.48**
Personal Growth	.48**
Positive Relations	.50**
Purpose in Life	.45**
Self-Acceptance	.55**

* $p < .05$. ** $p < .01$.

Table 8. Correlations With Self-Determination Theory ($N = 486$).

Relatedness	.44**
Relatedness satisfaction	.51**
Relatedness dissatisfaction	-.27**
Competence	.45**
Competence satisfaction	.52**
Competence dissatisfaction	-.23**
Autonomy	.42**
Autonomy satisfaction	.62**
Autonomy dissatisfaction	-.14*

* $p < .05$. ** $p < .01$.

$p < .05$), and *Environmental Mastery* ($\beta = -.15$, $p < .05$) independently predicted self-actualization. Looking at a regression with just the facets of psychological well-being (excluding life satisfaction), *Self-Acceptance* ($\beta = .41$, $p < .05$), *Personal Growth* ($\beta = .21$, $p < .05$), and *Positive Relations* ($\beta = .17$, $p < .05$) independently predicted self-actualization. Note that when life satisfaction was excluded from the model, self-acceptance emerged as a much stronger independent predictor of self-actualization. This makes sense considering that the correlation between life satisfaction and self-acceptance was extremely high ($r = .73$, $p < .0001$).

Psychological Needs

Self-actualization was positively correlated with fulfilment of the three needs proposed by Self-Determination Theory (Ryan & Deci, 2000)—relatedness, competence, and autonomy—and was negatively correlated with dissatisfaction of these needs (see Table 8). Note that the correlations with need satisfaction were much stronger than those with need dissatisfaction.

Table 9. Correlations With Workplace Variables ($N = 522$).

Job level	.13**
Job performance appraisal	.19**
Self-appraisal job performance	.23**
Job satisfaction	.37**

* $p < .05$. ** $p < .01$.

Looking at a regression with all needs at the same time, *Competence* ($\beta = .24, p < .001$), *Relatedness* ($\beta = .23, p < .001$), and *Autonomy* ($\beta = .12, p < .05$) each independently predicted self-actualization. Running a regression on all of the subscales at the same time, *Autonomy Satisfaction* ($\beta = .43, p < .001$), *Relatedness Satisfaction* ($\beta = .24, p < .001$), and *Competence Satisfaction* ($\beta = .20, p < .001$) independently predicted self-actualization. There was also a small independent prediction of *Autonomy Dissatisfaction* ($\beta = .17, p < .001$) on self-actualization.

Self-Transcendent Experience

The correlation between self-actualization and the self-loss subscale was virtually zero ($r = .001, p = .98$), whereas the correlation with the unity subscale was strong and statistically significant ($r = .62, p < .001$). The correlation between self-actualization and unity remained high ($r = .56, p < .001$), even after removing the three items from the Peak Experiences subscale of the CSAS that conceptually overlapped with the Self-Transcendent Experience Scale.

Workplace Outcomes

Self-actualization was significantly correlated with all workplace-related outcomes (see Table 9), including job level, job performance ratings, and job satisfaction. Self-actualization remained significantly correlated with job satisfaction ($r = .22, p < .001$), even after controlling for the four Big Five traits that have consistently been shown to correlate with job satisfaction: Extraversion, Neuroticism, Agreeableness, and Conscientiousness (Judge, Heller, & Mount, 2002).

Creativity

Self-actualization was significantly correlated with self-reports of “more talent, ability, or training than the average person” across 13 domains ($r = .23$,

$p < .001$), and this correlation held even after controlling for both Conscientiousness and Openness to Experience ($r = .20, p < .001$). This is important because Openness to Experience is a trait widely considered to be the strongest correlate of creativity (Kaufman, 2013; Kaufman et al., 2015; Oleynick et al., 2017).

In terms of creative achievement, self-actualization was significantly correlated with creative achievement in the domain of humor (Spearman rank correlation = $.12, p < .01$) as well as total creative achievement summing across all 11 domains (Spearman rank correlation = $.09, p < .05$). There was also a statistically significant difference ($t = -5.6, df = 520, p < .001$) in self-actualization between those who selected that “One of the first things people mention about me when introducing me to others is my creative ability in the above areas” across the 11 domains of creative achievement ($N = 268, M = 118.38$) and those who did not select this option ($N = 254, M = 110.33$), in the direction of higher self-actualization scorers being more likely to select this option.

There was also a statistically significant difference ($t = -2.07, df = 520, p < .05$) between those who selected “People regularly comment on my ‘artistic’ temperament” ($N = 149, M = 116.87$) and those who did not select this option ($N = 373, M = 113.50$), in the direction of higher self-actualization scorers being more likely to select this option, and there was a statistically significant difference ($t = 3.32, df = 520, p < .01$) in self-actualization scores between those who selected “People regularly accuse me of being an ‘absent-minded professor’ type” ($N = 97, M = 109.38$), and those who did not select this option ($N = 425, M = 115.62$), in the direction of higher self-actualization scorers being more likely to *not* select this option. This suggests that while self-actualized individuals are more likely to be perceived by others as having an artistic temperament, they are not more likely to be seen as having their heads in the clouds.

Discussion

Nearly 70 years ago, Maslow (1950) put forward an integrated theory of human motivation that still captures the public imagination today. While various attempts have been made to measure Maslow’s characteristics of self-actualization (e.g., Jones & Crandall, 1986; Lefrancois et al., 1997; Shostrom, 1974; Sumerlin & Bundrick, 1996), there has been a dearth of attempts to integrate Maslow’s theory with contemporary theory and research on personality and well-being. The current study aimed to fill this gap in the literature, linking Maslow’s central motivational framework (deficiency vs. growth motivation) and proposed characteristics of self-

actualizing people to modern attempts to measure personality and well-being. The pattern of results show support for Maslow's theory.

In terms of personality, scores on the CSAS—which was empirically derived directly from Maslow's (1950) list of self-actualizing individuals—was positively correlated with all five Big Five traits (Extraversion, Emotional Stability, Agreeableness, Conscientiousness, and Openness to Experience) as well as with all of the facets of each trait. In particular support of Maslow's theory, self-actualization was correlated with the two metatraits of the Big Five: Stability (which was reverse coded from a large number of deprivation-related items) and Plasticity (which consists of items relating to exploration and growth). This finding is consistent with the idea that self-actualization represents an optimally functioning cybernetic system (DeYoung, 2015; DeYoung & Weisberg, 2018).

Note, however, that self-actualization was more strongly related to Plasticity than the mere absence of deprivation (Stability), which dovetailed with a number of other findings in this study. In terms of curiosity, the strongest independent predictor of self-actualization (by far) was Joyous Exploration, and in a regression model, Deprivation Sensitivity (which reflects more of an obsessive drive to solve problems) was not independently predictive of self-actualization. In terms of psychological needs, self-actualization was much more strongly related to the satisfaction of the basic needs proposed by Self-Determination Theory (relatedness, competence, and autonomy; Ryan & Deci, 2000) than the *absence* of deprivation of these needs. Taken together, this total pattern of data supports Maslow's (1950, 1962/1998) contention that self-actualized individuals are more motivated by growth and exploration than by fulfilling deficiencies in basic needs.

Self-actualization also showed strong linkages to multiple aspects of well-being. Not only was self-actualization strongly correlated with greater life satisfaction, but self-actualization also demonstrated strong correlations with all of the facets of Ryff's (1989) model of psychological well-being: self-acceptance, positive relations, personal growth, autonomy, environmental mastery, and purpose.

The study also found support for Maslow's observation that self-actualized individuals are more likely to report self-transcendent experiences (Maslow, 1971). However, self-actualization was strongly correlated with the unity aspect of the self-transcendent experience, but *not* the sense of loss of self. This more granular finding within the domain of self-transcendence supports Maslow's contention that self-actualizing individuals are able to paradoxically merge with a common humanity while at the same time able to maintain a strong identity and sense of self. As Maslow wrote in his 1961 article, "Peak-experiences as acute identity experiences":

The goal of identity (self-actualization . . .) seems to be simultaneously an end-goal in itself, and also a transitional goal, a rite of passage, a step along the path to the transcendence of identity. This is like saying its function is to erase itself. Put the other way around, if our goal is the Eastern one of ego-transcendence and obliteration, of leaving behind self-consciousness and self-observation, . . . then it looks as if the best path to this goal for most people is via achieving identity, a strong real self, and via basic-need-gratification. (Maslow, 1962/1998, p. 125)

Likewise, in his writings about self-actualizing love, Maslow (1954) noted that

[W]e have customarily defined [falling in love] in terms of a complete merging of egos and a loss of separateness, a giving up of individuality rather than a strengthening of it. While this is true, the fact appears to be at this moment that the individuality is strengthened, that the ego is in one sense merged with another, but yet in another sense remains separate and strong as always. The two tendencies, to transcend individuality and to sharpen and strengthen it, must be seen as partners and not as contradictories. Furthermore, it is implied that the best way to transcend the ego is via having a strong identity. (pp. 199-200)

The ancillary aim of the current study was to develop a new scale of the characteristics of self-actualization that were drawn directly from Maslow's (1950) descriptions of self-actualizing people, that all loaded substantially on a general factor, and that which demonstrated external validity. The study succeeded in these aims. Ten subscales were chosen in the final scale, which substantially loaded on a general factor, and the total scores were significantly correlated with important work-related outcomes (e.g., job performance, job satisfaction) and higher reports of talent, ability, training, and creative ability across various domains of creative achievement. Some of these findings (e.g., job satisfaction, creative talent) held even after controlling for personality traits that have already been shown in the literature to be the best predictors of these outcomes. One potentially promising finding is the small but statistically significant correlation between self-actualization and creative achievement in the domain of humor. While Maslow's notion of a "philosophical sense of humor" was difficult to capture psychometrically in the pilot study (see the appendix), it appears that there indeed is a link between the characteristics of self-actualization and having a good sense of humor.

Future Directions

The focus of this article was on the global construct of self-actualization, and the 10 characteristics that are part of the CSAS should not be viewed in

isolation from one another but as part of a whole system of traits. Nevertheless, while the CSAS shows promise as a global measure of the self-actualizing personality, further research on larger samples over time, and in more diverse cultures is necessary to replicate the factor structure and reliability of the subscales and to demonstrate its generalizability. Further work may suggest the necessity of refining some of the items within each subscale that either don't consistently load on the relevant factor or could be ambiguous in terms of its meaning within a particular culture. Ultimately, for the scale to have the most generalizability, it would be normed on appropriate populations and have multiple translations consisting of a wide variety of languages in the world.

Also, while the findings suggest that there is promise in using the CSAS in applied settings, such as the workplace (for another scale attempting to measure self-actualization in the workplace, see Hoffman, Simon, & Ortiz, 2008; Hoffman, Sogliano, & Ortiz, 2009), further testing in ecologically valid locations is required before this scale is widely used for such purposes.

Conclusion

The findings in this investigation strongly suggest that much of Maslow's seminal thinking about human motivation, personality, and the characteristics of self-actualization has empirical support and can easily be integrated into contemporary research and theory on personality and well-being. This is quite remarkable considering that Maslow generated his theory with a paucity of actual evidence. Of course, Maslow stood on the shoulder of giants, many of whom he had the honor and pleasure of interacting with during his lifetime (see Hoffman, 1988). Just as Maslow attempted to integrate their large corpus of work into an integrated theory of human motivation, hopefully the current study also offers a valuable integration, further bringing Maslow's motivational framework and the central personal characteristics described by the founding humanistic psychologists, into the 21st century.

Appendix

Pilot Study

Participants. A total of 375 participants were recruited from Amazon's Mechanical Turk. The study received Institutional Review Board approval from the University of Pennsylvania. While most participants reported being White (77%), a variety of races and ethnicities were also reported (*Asian* = 47, *Hispanic or Latino* = 34, *Black* = 39), and there was an even gender split (*Male* = 199, *Female* = 174, *Other-identified* = 2). The average age was 37.5 years (*SD* = 11.7), with a range of 19 to 72 years.

Table A.1. Original Pool of Items for the Characteristics of Self-Actualization Scale.

More efficient perception of reality and more comfortable relations with it ($\alpha = .73$)

I have an ability to detect the dishonesty of others.

I am a good judge of character.

I often have a clear perception of reality, as confirmed by external evidence.

I try not to impart my own wishes, hopes, fear, anxieties, and stereotypes onto the world, but I try to see things as they truly are.

I am not a superstitious thinker; I try to get at the real truth about people and nature.

Acceptance (self, others, nature) ($\alpha = .61$)

I accept all sides of myself, including my shortcomings.

I accept the imperfections and weaknesses of others.

I accept my hearty, animal appetites (e.g., my appetites for food and sleep, and my sexual proclivities) without judgment, shame, or apology.

I accept the hearty, animal appetites of others (e.g., other people's appetites for food and sleep, and their sexual proclivities) without judgment, shame, or apology.

I don't think much about who I am, I just *am*.

Spontaneity; Simplicity; Naturalness ($\alpha = .49$)

I am often spontaneous in my behavior, acting as naturally as possible.

I generally lack artificiality and straining in my behavior.

I don't tend to make a conscious effort to act conventionally.

When I am totally absorbed in an activity, I often forget the conventional rules of society.

My personal code of ethics is not influenced by the behavior of others.

I often feel like a spy or alien in a foreign land.

Problem Centering ($\alpha = .88$)

I feel a great responsibility and duty to accomplish a particular mission in life.

I feel as though I have some important task to fulfill in this lifetime.

I have a purpose in life that will help the good of humankind.

I am often focused on solving problems outside of myself (i.e., problems that don't necessarily enhance my own ego).

I am usually not focused on the pettiness of everyday social life, and am more interested in focusing on universal values that concern all of humanity.

Autonomy; Independence of culture and environment; Will; Active Agents ($\alpha = .63$)

My decisions aren't easily influenced by the opinions of others.

I take responsibility for my own actions.

I am relatively stable in the face of hard knocks, blows, deprivations, and frustrations.

My main guide to life is whether I am growing and developing as a whole person.

I am not dependent on others for my own satisfaction in life.

Continued freshness of appreciation ($\alpha = .77$)

I can appreciate again and again, freshly and naively, the basic goods of life, with awe, pleasure, wonder, and even ecstasy, however stale these experiences may have become to others.

(continued)

Table A.1. (continued)

A sunset looks just as beautiful every time I see one.

I often feel gratitude for the good in my life no matter how many times I encounter it.

Any flower is lovely, even if I've seen the same one many times before.

I don't take my relationships for granted.

The mystic experience; The peak experience ($\alpha = .77$)

I often have experiences in which I feel new horizons and possibilities opening up for myself and others.

I often have experiences in which I feel a profound transcendence of my selfish concerns.

I often have experiences in which I feel one with all people and things on this planet.

I experience a lot of wonder and awe in my life.

I often have experiences in which I simultaneously feel more powerful and more helpless than I ever felt before.

Gemeinschaftsgefühl (.80)

I feel a deep sense of identification with all human beings.

I feel a great deal of sympathy and affection for all human beings.

I have a genuine desire to help the human race.

I am often saddened, exasperated, and even enraged by the shortcomings of the average person.

No matter how distant I may sometimes feel from others, I still maintain a basic underlying love and lack of condescension toward them.

Interpersonal Relations ($\alpha = .70$)

I have the capacity to form deep relationships with others.

I prefer to have a deep connection with a few individuals than have superficial connections with lots of people.

I like to have a small but meaningful circle of friends.

A real friendship takes time to develop.

I often attract many more admirers and people who want to be friends with me than I desire to have.

I have great feelings of tenderness and love for children.

The Democratic Character Structure ($\alpha = .63$)

I am often friendly with anyone, regardless of class, education, political belief, race, or color.

When I meet a new person, I am often more interested in my similarities with them than the differences.

I can learn from anybody who has something to teach me, no matter what other characteristics they may have.

I am well aware of how little I really know in comparison with what *could* be known.

I have no qualms at all about counterattacking against evil people and evil behavior.

Discrimination between means and ends, between good and evil ($\alpha = .54$)

(continued)

Table A.1. (continued)

I have a strong sense of right and wrong in my daily life.

I rarely feel conflict in my ethical decision making.

I often appreciate things for their own sake, not for how they can help me achieve some goal.

My notions of right and wrong are often not the conventional ones in society.

I can often transform routine, mechanical, and rote experiences (e.g., transporting books from one set of shelves to another) into an amusing game.

Creativeness ($\alpha = .81$)

I have a generally creative spirit that touches everything I do.

I bring a generally creative attitude to all of my work.

I am often in touch with my childlike spontaneity.

Regardless of my specific talents, I have a creative way of approaching new situations.

I bring a creative spirit to all of my personal interactions.

Resistance to Enculturation: The transcendence of any particular culture ($\alpha = .51$)

I feel a greater identification with all of humanity than with any particular culture.

When it comes to matters of great importance to me, I can easily go against the grain of my culture.

I am not easily molded by the opinions of others.

When it comes to trivial matters (e.g., style of haircut, choice of shoes and dress), I have no problem conforming to my culture.

I often maintain a degree of detachment from my culture.

Excluded from analysis due to low loadings ($< .30$) on the general factor

The Quality of Detachment; The Need for Privacy ($\alpha = .75$)

I have a high need for solitude.

I enjoy solitude.

I have a high need for privacy.

I am often undisturbed and unruffled by things that seem to bother most people.

I can maintain my dignity and integrity even in environments and situations that are undignified.

I have the ability to concentrate intensely for long periods of time on problems that interest me.

The imperfections of self-actualizing people ($\alpha = .66$)

I can sometimes have quite a temper.

I can be ruthless if the occasion really calls for it.

I can be cold to others when it's in both of our best interests (e.g., breaking up an unhealthy relationship).

I definitely have my flaws.

I am by no means perfect.

My kindness often gets me into relationships that I do not want to maintain (e.g., people who are parasitic).

Resolution of Dichotomies ($\alpha = .61$)

(continued)

Table A.1. (continued)

Many so-called dichotomies in society (e.g., heart vs. head, male vs. female, selfish vs. unselfish, mystical vs. realistic, kindness vs. ruthlessness, lust vs. love) really aren't dichotomies at all.
I don't see such a clear distinction between work and play in my own life.
I don't see such a stark distinction between selfishness and unselfishness in my own life.

I don't see a conflict between many things that most people see as antagonistic. I don't believe that there is a necessary war among genders, but that different genders can harmoniously coexist with one another.

Philosophical, unhostile sense of humor ($\alpha = .66$)

I can easily poke fun at myself, but it's usually in a teasing, loving way.
I like to poke fun at human beings when they are acting foolishly.
I like to poke fun at human beings when they forget their place in the universe (i.e., try to be too big).

I've noticed that I don't tend to find funny things that most people tend to find funny.

I do not find hostile humor funny (e.g., laughing at someone else's inferiority).

Note. Boldfaced items were retained for analysis. Reliability for each subscale was calculated using the boldfaced items.

Table A.2. Factor Loadings of Subscales on First Principal Component.

Subscale self-actualization	Factor
Continued freshness of appreciation	.78
Gemeinschaftsgefühl	.73
Democratic character structure	.71
Autonomy	.69
Acceptance	.69
Discrimination between means and ends	.67
More efficient perception of reality	.66
Creativeness	.63
Problem centering	.61
Interpersonal relations	.60
Mystic experiences	.60
Resistance to enculturation	.59
Spontaneity	.35

Note. $N = 375$. Extraction method: principal component analysis; first principal component eigenvalue 5.4, % of variance explained 44.5%.

Procedure. Participants completed a 25-30 minute online survey administered via Qualtrics. Most scales were on a 5-point Likert-type scale, ranging from *disagree strongly* (1) to *agree strongly* (5), except for the demographic questions, which had more relevant response options.

Table A.3. Factor Analysis of Desired Level of Satisfaction of Various Needs.

Need	Happiness/security	Power/status	Positive impact/creativity
Happiness	.81		
Security	.79		
Close relationships	.71		.35
Power		.83	
Status		.79	
Money		.76	
High performance	.37	.64	
Achievement	.53	.56	
Positive impact	.36		.72
Impact		.36	.71
Creativity			.61
Meaning	.55		.60
Personal growth	.55		.55

Note. $N = 375$. Only loadings greater than .30 are shown. Extraction method: Principal component analysis with varimax rotation. First factor (well-being) = eigenvalue (5.5), % variance explained (42.6%); second factor (status) = eigenvalue (1.8), % variance explained (14%); growth eigenvalue (1.0), % variance explained (8%).

Results. The purpose of the pilot study was to create a scale that closely captures the characteristics of self-actualization as proposed by Maslow (1950). The original pool of items consisted of 91 items informed by Maslow's (1950) article "Self-actualizing people: A study of psychological health" (see Table A.1). Three items per characteristic were selected for analysis based on a consideration of reliability and face validity. Only subscales that loaded $>.30$ on the first principle component were retained for analysis (see Table A.2). The first principle component explained 44.5% of the total variance among the subscales. The final scale for analysis included 13 subscales, with 7 subscales showing reliability $>.70$. The reliability of all 39 items was excellent ($\alpha = .92$). Scores ranged from 65 to 194, with a mean of 146 and a standard deviation of 21. Skewness was $-.56$, and Kurtosis was 1.1.

The scale was not significantly correlated with education, race, ethnicity, childhood income, or family history of mental illness. No significant gender differences were found in self-actualization. Self-actualization was significantly correlated with age ($r = .13, p < .05$), job level ($r = .15, p < .01$), job satisfaction ($r = .37, p < .001$), income during the past 12 months ($r = .12, p < .05$, Spearman rho rank correlation), and less of a history of mental illness diagnoses ($r = -.14, p < .01$).

To measure discriminant validity, I administered a scale that I created with Reb Rebele to measure individual differences in the desired level of need satisfaction in one's life. Participants were given the following instructions: "There are various things in life that affect our quality of life. Using a scale of 1 (*none at all*) to 7 (*as much as possible*), how much of each of the following things do you think you need to feel satisfied with your life?" Participants were then given 11 variables to rate. An exploratory factor analysis was conducted on the 11 variables. Consideration of the scree plot and inclusion of all factors with eigenvalues >1 suggested a sensible three-factor structure reflecting three main class of needs: *Happiness/Security*, *Power/Status*, and *Positive Impact/Creativity* (Table A.3.).

Self-actualization significantly correlated with a higher desired level of satisfaction of *Positive Impact/Creativity* ($r = .48, p < .001$) and *Happiness/Security* ($r = .39, p < .001$), but it was uncorrelated with the desire for higher *Power/Status* ($r = .07, p = .21$). Self-actualization was also strongly correlated with the Joyous Exploration subscale of the Five-Dimensional Curiosity Scale ($r = .69, p < .001$; Kashdan et al., 2017).

Based on the pilot data, the following changes were made to the revised scale:

- Various subscale labels were changed from Maslow's original language to be more comprehensible to modern day psychologists and the general public,
- In many cases, the wording of the items was tweaked from Maslow's original language to increase the reliability of the subscales,
- For clarity and to eliminate redundancy, the *Autonomy* and *Resistance to Enculturation* subscales were combined into the category "Authenticity,"
- *Spontaneity* was excluded due to redundancy with *Creativeness*,
- *Interpersonal Relations* was dropped due to low reliability ($<.60$) in the revised scale,
- *The Democratic Structure* was dropped since all of the items did not load $>.40$ on the respective factor in the exploratory factor analysis on the revised scale,
- The *Equanimity* subscale was added to capture Maslow's (1950) repeated mention of stability in the face of stressors as a characteristic of self-actualizing people.

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Note

1. Interestingly, one of the strongest correlates of Stability is “grumble about things,” which is interesting considering Maslow’s idea that people at different levels of the motivation hierarchy have different types of grumbles (Maslow, 1971).

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