



The pursuit of virtual happiness: Exploring the social media experience across generations



Orie Berezan^{a,1}, Anjala S. Krishen^{c,*}, Shaurya Agarwal^b, Pushkin Kachroo^c

^a California State University, Dominguez Hills, 1000 E. Victoria Street, Carson, CA 90747, USA

^b California State University, Los Angeles, 5151 State University Drive, Los Angeles, CA 90032, USA

^c University of Nevada, Las Vegas, 4505 Maryland Parkway, Las Vegas, NV 89154, USA

ARTICLE INFO

Keywords:

Social media networking
Affect balance
Virtual happiness
Self-determination theory
Generational cohorts
FsQCA

ABSTRACT

Social media environments can transform and reinforce life experiences, influencing self-concept and providing happiness. The goal of this research is to examine social media networking as an experiential phenomenon, wherein consumers pursue virtual happiness by satisfying the self-determination theory (SDT) needs of relatedness, competence, and autonomy. Beginning with the memory connection to self-concept, the study proposes an experiential outcome circle for social media to virtual happiness. A circle depicts the idea that self-concept motivates social media behavior, which influences the self-concept. Happiness, or affect balance, is a potential outcome of this connection. The study analyzes $n = 504$ social media networking participants using generational cohorts with fuzzy set qualitative comparative analysis (fsQCA). This study suggests the metaphors for each generation based on the following SDT recipes: (1) “we” for generation Y with relatedness and competence, (2) “me” for generation X, with autonomy and competence, and (3) “be” for baby boomers with competence.

1. Introduction

Happiness can be an endless and often relentless goal for individuals in society. As consumers, individuals often traverse the marketplace, acquiring goods and services, on the path to happiness. Guevarra and Howell (2015) indicate that experiences or experiential products, such as travel, video games, or electronic devices, offer greater happiness than material ones, such as jewelry or clothing. Because the consumption of experiences versus material goods can lead to greater self-definition, these experiences may also result in higher levels of happiness (Bhattacharjee & Mogilner, 2014). In effect, social media platforms are also experiential products. Social media can transform and continually reinforce life experiences, both positively and negatively (Scheinbaum, 2017). For example, many social media platforms allow members to share their consumption experiences, enabling self-reflection, growth, and learning, potentially affecting their happiness (Bosangit & Demangeot, 2016). By facilitating social media experiences that positively affect the happiness and subjective well-being of target markets, marketers can more effectively engage with consumers.

When an experience leads to a memory, it is more likely to shape an individual's self-concept (Carter & Gilovich, 2012). Such experiences, whether they are ordinary (common and frequent) or extraordinary

(beyond everyday life), determine and affect a consumer's happiness (Bhattacharjee & Mogilner, 2014). Social media networking involves the active consumption of an experience because it allows individuals to share moments that later become a set of memories, carefully time-lined and linked to virtual others throughout cyberspace. The enjoyment and happiness resulting from such shared experiences are influenced by motivations to belong and confidence in social information (Raghunathan & Corfman, 2006).

As people age and traverse through different life stages, not only does their definition of happiness itself shift (Mogilner, Kamvar, & Aaker, 2011), but also their view of their lifespan, also known as the future perspective (Strough et al., 2016). Differences in the meaning of happiness stem from several types of arousal; whereas happiness for younger people can result from high states of arousal such as excitement, older people can achieve happiness from low states of arousal such as peacefulness. In a meta-analytic study of subjective well-being, Pinquart (2001) finds that as age increases, overall positive affect decreases, and high and low arousal and emotional states decline. Social media experiences enable both empowerment activities as well as social interactions. Yuksel, Milne, and Miller (2016) empirically validate differences in younger versus older consumers. They find that college-aged consumers gain more value from socialization than older

* Corresponding author.

E-mail addresses: oberezan@csudh.edu (O. Berezan), anjala.krishen@unlv.edu (A.S. Krishen), pushkin@unlv.edu (P. Kachroo).

¹ First two authors contributed equally.

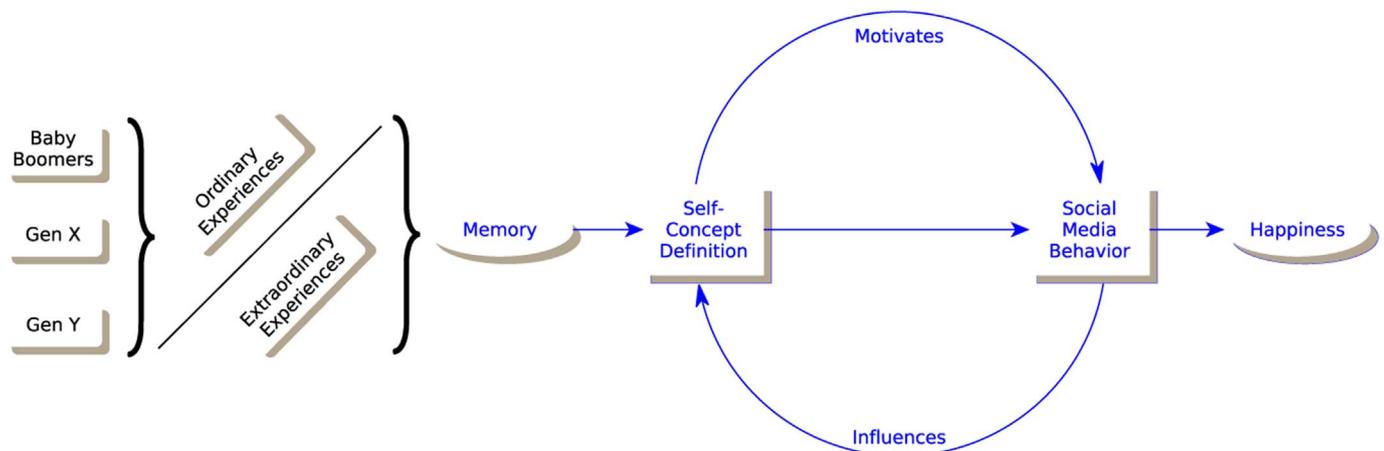


Fig. 1. Conceptual framework.

consumers. Yuksel and colleagues surmise that generation effects could be the reason for this difference, and the recent research also indicates that social media provides different cognitive responses (in terms of satisfaction) with a basis in various motivational antecedents per generation (Krishen, Berezan, Agarwal, & Kachroo, 2016).

The goal of the present research is to examine social media networking as an experiential phenomenon wherein consumers pursue virtual happiness in their everyday exchanges. The present study views happiness as a potential affective outcome of social media experiences and builds on the research regarding age and generational differences. First, the study offers a conceptual framework that combines the definition of self-concept, self-determination theory (SDT), and happiness (see Fig. 1). Then, through a quasi-convenience sample of 504 subjects, the study explores various motivation recipes according to SDT for each generation, using fuzzy set qualitative comparative analysis (fsQCA). Finally, the study presents conclusions, implications, and limitations to offer a broader understanding of social media networking, generational motivations, and SDT.

2. Conceptual framework

2.1. Self-concept definition and generations

Because teenagers are still forming their self-identity, their activity on social media networks provides insights into their identity construction and self-enhancement (Doster, 2013). In their qualitative study of generation Y consumers, Noble, Haytko, and Phillips (2009) identify the socialization issues of freedom and self-identity (finding oneself) as their key purchasing motivations. Individuals can change their beliefs and behaviors through implicit experience-taking when they spontaneously assume the mindset of a character in a fictional novel (Kaufman & Libby, 2012). To do this, they must temporarily set aside their self-concept and allow themselves to adopt the internal traits of the narrative character. Social media is an experiential phenomenon wherein consumers identify with the characteristics of others in virtual space.

Several theories, including self-verification theory, self-determination theory, and uniqueness theory, discuss identity construction as having a set of six key motives: self-esteem, continuity, distinctiveness, belonging, efficacy, and meaning. Identity structure can be delineated into cognitive and affective dimensions, with happiness serving as the strongest predictor of self-esteem, efficacy, and belonging (Vignoles, Regalia, Manzi, Gollledge, & Scabini, 2006). Another interesting aspect of self-concept is the self-synchronization process that occurs as part of the construction of a socially adaptive identity, which Kawakami et al. (2012) find can enhance survival likelihood. This socially adaptive identity will change over time and through different experiences that

allow individuals to be shaped by their physical and virtual experiences. The idea of a malleable self-concept has relevance when individuals feel that they are adapting to self-descriptive groups that have high psychological utility (Sim, Goyle, McKedy, Eidelman, & Correll, 2014). As such, even the process of aging itself is considered a socially constructed subjective phenomenon that results from positioning in society and an acceptance of the identity labels associated with “elderly” or “old age” (Barnhart & Peñaloza, 2013).

In a study on the social media networking practices of college-aged users, Krasnova, Widjaja, Buxmann, Wenninger, and Benbasat (2015) indicate that the consumption of social information can lead to increases in envy and self-enhancement strategies and ultimately lower cognitive and affective well-being. According to a study on the happiest 10% of college students, Diener and Seligman (2004) conclude that while students need positive social relationships for their well-being, these relationships alone are not sufficient. Because linkages exist between studies on aging and generational cohorts, these are two separate but intertwined concepts. The formation of self-concept can be strongly tied to social identity, especially during younger years because it is malleable and needs further development. At the same time, generational cohorts share social, cultural, and technological experiences, that can lead to similar identity structures.

2.2. Self-determination theory, social media networking behavior, and happiness

Self-determination theory posits that three basic psychological needs drive behavior and lead to growth, development, and well-being. They are relatedness, autonomy, and competence (Ryan & Deci, 2000; Sheldon, Abad, & Hirsch, 2011). Relatedness provides a feeling of belongingness, namely the need to connect with and develop close and affectionate relationships with others (Baumeister & Leary, 1995). The need for autonomy involves a sense of freedom and the ability to control one's own life in a way that enhances one's sense of identity (Deci & Ryan, 1985). Lastly, the need for competence refers to feelings of being able to control one's environment and the results of one's actions (Ryan & Deci, 2000). According to SDT, people must satisfy all three of these needs to experience the height of well-being, or happiness (Deci & Ryan, 2000). Indeed, the research shows that the satisfaction of these psychological needs may be a predictor of well-being, relationship quality, and happiness (Deci & Ryan, 2008; Sapmaz, Doğan, Sapmaz, Temizel, & Tel, 2012). To some degree, each of these needs motivates behaviors in daily experiences, including virtual lives. In terms of social media behavior, the research primarily evaluates SDT as a predictor of satisfaction, a cognitive outcome (Krishen et al., 2016). Ong, Chang, and Lee (2015) were among the first to explore factors that influence website-related emotions in their study on Facebook users. They stress

Table 1
Construct items.

Construct	Items
Autonomy	<ol style="list-style-type: none"> 1. I feel like I can be myself. 2. I often feel like I have to follow other member's commands. 3. If I could choose, I would do things differently. 4. The tasks I have to do are in line with what I really want to do. 5. I feel free to use social media networks in the way I think they can best be used.
Relatedness	<ol style="list-style-type: none"> 6. I feel forced to do things I do not want to do. 1. I don't really feel connected with other people. 2. I feel part of a group. 3. I don't really mix with other people. 4. I can communicate with people about things that really matter to me. 5. I often feel alone when I am communicating with people. 6. Some people I communicate with are close friends of mine.
Competence	<ol style="list-style-type: none"> 1. I really master my social media networking tasks. 2. I feel competent using them. 3. I am good at the things I do on them. 4. I have the feeling that I can even accomplish the most difficult social media networking tasks.
SPANE-P	<ol style="list-style-type: none"> 1. Positive 2. Good 3. Pleasant 4. Happy 5. Joyful 6. Contented
SPANE-N	<ol style="list-style-type: none"> 1. Negative 2. Bad 3. Unpleasant 4. Sad 5. Afraid 6. Angry
SPANE-B	Fuzzy construct derived from SPANE-P and SPANE-N

the fact that emotions (affect) are as important as satisfaction (cognition) in determining happiness, both of which can ultimately motivate users to increase their behavioral commitment to a website. The current study answers their call for research by evaluating social media networking from the lens of a generational cohort as it relates to the definition of self-concept in determining one's sense of well-being, or happiness.

2.3. Affect balance and happiness

No single definition exists for the term *happiness*, and every individual has their own perspective of what makes them happy. When asked to describe what makes them happy, people respond with vastly different answers, from sunshine to dancing, health to wealth, and successful children to a long-term love relationship. Researchers use subjective well-being (SWB) to recognize the fact that happiness is subjective and therefore individuals evaluate their own life based on their own standards (Deci & Ryan, 2008; Diener, Nickerson, Lucas, & Sandvik, 2002). Ryan and Deci (2001) recognize both hedonic (pleasure-related) and eudaimonic (meaning-related) aspects of SWB and identify hedonic well-being as focusing on happiness. Subjective well-being incorporates both positive and negative affect and considers the balance between the two as an aspect of happiness in measuring mood and emotion based on what is occurring in one's life. Bradburn's (1968) affect balance scale (ABS) is one of the most widely established in measuring SWB. The positive and negative affect scale is empirically validated, and the most commonly used scale in literature (PANAS; Diener et al., 2010). The hedonic balance scale evaluates positive and negative affect with three items each (HBS; Schimmack, Diener, & Oishi, 2002). A newer measure of affective well-being is the scale of positive and negative experience (SPANE; Diener et al., 2010). SPANE evaluates six self-reported positive and six self-reported negative feelings based on the participants' recall of the past four weeks, which

arguably enhances its validity. As it takes a larger span of time into account, SPANE is considered to be less limiting than previous scales such as ABS and PANAS that measure affective aspects of subjective well-being (Jovanovic, 2015; Li, Bai, & Wang, 2013). The present study uses SPANE to evaluate subjective affect balance (positive minus negative reported feelings) of participants in relation to their social media behaviors over their most recent four weeks, thereby providing a measure of happiness.

Fig. 1 presents a conceptual framework that combines self-concept and generations, social media networking, SDT, and affect balance, or happiness. This framework identifies the generational cohorts of gen Y, gen X, and baby boomers as salient groups to study. As the literature proposes, individuals in older generations can form memories more readily from either extraordinary or ordinary experiences whereas those from younger generations normally require extraordinary experiences to form meaningful memories. These memories then translate into a self-concept. Beginning with the memory connection to self-concept, the present study proposes an experiential outcome circle for social media to virtual happiness. A circle depicts the idea that self-concept motivates social media behavior, which in turn influences one's self-concept. Happiness, or affect balance, is a potential outcome of this connection.

3. fsQCA study

3.1. Sampling and measures

Data collection involves an online survey that uses a snowball collection method ($n = 504$); subjects are screened based on identification of their generational cohort and their membership in social networks. Snowball sampling is a quasi-convenience data collection methodology that allows for specified sampling frames (such as generational cohorts), while providing an acceptable level of bias and reducing potential estimation problems (Chen, Chen, & Xiao, 2013). Previous research utilizes this technique, for example when exploring online preferences including privacy issues (Krishen, Raschke, Close, & Kachroo, 2017), service employee affect (Rayburn, 2014), or when targeting specific demographic cohorts (Berezan, Raab, Krishen, & Love, 2015).

As the present study explores social media networking, online sampling is an appropriate collection technique; while the generational cohorts are not the exact same size, they do provide acceptable ecological validity in the social media environment. All measures involved in this study are existing and validated scales, and all of the constructs have acceptable reliabilities of 0.7 or higher. Table 1 contains the scale details, and Table 2 provides the respondent demographics.

3.2. Procedure and analysis

The survey uses a set of Likert scales to gather data as well as a set of demographic questions. To analyze the data, fsQCA allows for the identification of recipes for happiness based on generational cohorts (Emmenegger, Schraff, & Walter, 2014). The initial step in fsQCA is data calibration; or the mapping of the original values for all conditions into membership scores that range from zero to one. The survey data is divided into the following generational cohorts as per previous research: baby boomers from 1946 to 1964, gen X from 1965 to 1983, and gen Y or millennials from 1984 to 2002 (Elmore, 2014; Markert, 2004).

Originally the study received 565 survey responses. Removing 61 responses due to incomplete data yielded a final data set consisting of $n = 504$ respondents. In the final data set, each generational cohort has an acceptable sample size for fsQCA with $n = 46$ for baby boomers, $n = 165$ for gen X, and $n = 293$ for gen Y. Tables 3, 4, and 5 provide the multiplicative construct scores and fuzzy-set thresholds for each of the generations, respectively.

SPANE is used to assess the positive, negative, and overall affect

Table 2
Sample demographics.

		Baby boomers		GenX		GenY	
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
		N	%	N	%	N	%
Gender	Male	22	47.83	53	32.12	113	38.57
	Female	24	52.17	110	66.67	177	60.41
	Other		0.00	2	1.21	3	1.02
	Total	46	100.00	165	100.00	293	100.00
Highest level of education	Less than high school degree	2	4.35	5	3.03	1	0.34
	High school	8	17.39	18	10.91	34	11.60
	Some college but no degree	15	32.61	48	29.09	104	35.49
	Associate degree in college (2 years)	6	13.04	32	19.39	112	38.23
	Bachelor's degree in college	9	19.57	46	27.88	34	11.60
	Master's Degree	4	8.70	15	9.09	7	2.39
	Doctorate		0.00		0.00		0.00
	Professional Degree	2	4.35	1	0.61	1	0.34
	Total	46	100.00	165	100.00	293	100.00
Employment status	Student only		0.00	10	6.06	72	24.57
	Employee for 20 h or more per week plus student	3	6.52	13	7.88	134	45.73
	Employee for over 30 h per week or full-time employee	27	58.70	129	78.18	85	29.01
	Unemployed or retired	16	34.78	13	7.88	2	0.68
	Total	46	100.00	165	100.00	293	100.00

Table 3
Construct descriptions: baby boomers.

Construct	Reliability	Range of construct score	Threshold for full non membership	Maximum point of ambiguity	Threshold for full membership
Autonomy		1–117,649	1400	13,400	67,228
Relatedness		1–117,649	1080	12,096	72,030
Competence		1–2401	12	256	864
SPANE-P		1–117,649	4096	21,600	74,088
SPANE-N		1–117,649	1	288	5400

Table 4
Construct descriptions: gen X.

Construct	Reliability	Range of construct score	Threshold for full non membership	Maximum point of ambiguity	Threshold for full membership
Autonomy		1–117,649	1764	16,464	84,035
Relatedness		1–117,649	784	12,500	86,436
Competence		1–2401	16	432	2401
SPANE-P		1–117,649	3072	18,000	74,088
SPANE-N		1–117,649	1	256	11,250

Table 5
Construct descriptions: gen Y.

Construct	Reliability	Range of construct score	Threshold for full non membership	Maximum point of ambiguity	Threshold for full membership
Autonomy		1–117,649	1728	13,125	67,228
Relatedness		1–117,649	686	8000	72,030
Competence		1–2401	64	625	2401
SPANE-P		1–117,649	1920	18,000	63,504
SPANE-N		1–117,649	15	1000	15,625

balance of the survey participants over the last four weeks (Diener et al., 2010). SPANE can derive an overall affect balance score, but can also be divided into positive and negative scales for feelings. Since the constructs in fsQCA are calculated by multiplying the corresponding items rather than adding/subtracting, the present study identifies a suitable method to derive the calibrated affect balance using a fuzzy

scale. First, the two positive and negative constructs for affect are calculated and calibrated by using the standard fsQCA procedure: SPANE-P and SPANE-N. The second step is to subtract the negative feelings score (SPANE-N) from the positive feelings score (SPANE-P); the resultant difference score can vary from -1 (unhappiest) to $+1$ (happiest). In essence, a respondent with a score of $+1$ indicates that s/he very rarely or never experiences any negative feelings and very often or always has all positive feelings. Because fsQCA requires the constructs to be the fuzzy scale of zero to one, we further process the resulting difference to determine the final score of the affect balance (SPANE-B). The absolute value of the minimum negative term is added to the difference (shifting) followed by the division of the maximum resulting number (scaling) to obtain the new construct SPANE-B.

3.3. Estimating complex causal statements (recipes)

The sample is split into two subsamples, the first is a training sample ($n = 23$ for baby boomers, $n = 83$ for gen X, and $n = 147$ for gen Y), with the second subsample ($n = 23$ for baby boomers, $n = 82$ for gen X, and $n = 146$ for gen Y) providing validation for the results.

4. Results

4.1. Using original calibrated constructs

The outcome construct (SPANE-B) is measured in terms of the three antecedent variables of interest, which are autonomy, relatedness, and competence. Tables 6, 7, and 8 show the recipes in the complex, parsimonious, and intermediate solutions for the three age groups. The frequency cutoff used for the three generational cohorts is 4, 13, and 19 respectively, and the consistency cutoff of 0.80 is used for the analysis. Many of the solutions qualify with high individual consistency scores that are above 0.8, along with the raw coverages meeting the desired values that fall in the range of 0.25 to 0.65 as suggested by Woodside (2013). Tables 6, 7 and 8 highlight solutions meeting the desired cutoff criterion for consistency and raw coverage.

4.2. Testing for predictive validity

To test for predictive validity, the sample randomly assigns cases to the training subsample ($n = 23$ for baby boomers, $n = 83$ for gen X, and $n = 147$ for gen Y) and to the testing subsample ($n = 23$ for baby

Table 6
Solutions for baby boomers group.

Complex solution			
Frequency cutoff: 4.00 Consistency cutoff: 0.811242	Raw coverage	Unique coverage	Consistency
~ Competence Solution coverage: 0.711116 Solution consistency: 0.696637	0.711116	0.711116	0.696637
Parsimonious solution			
Frequency cutoff: 4.00 Consistency cutoff: 0.811242	Raw coverage	Unique coverage	Consistency
~ Competence Solution coverage: 0.711116 Solution consistency: 0.696637	0.711116	0.711116	0.696637
Intermediate solution			
Frequency cutoff: 4.00 Consistency cutoff: 0.811242	Raw coverage	Unique coverage	Consistency
~ Competence Solution coverage: 0.711116 Solution consistency: 0.696637	0.711116	0.711116	0.696637
Predictive validity testing			
Training sample (<i>n</i> = 23) Overall solution consistency	Overall solution coverage	Validity sample (<i>n</i> = 23) Overall solution consistency	Overall solution coverage
0.600191	0.710061	0.610170	0.705925

boomers, *n* = 82 for gen X, and *n* = 146 for gen Y). The test then performs a series of fsQCA to examine the recipes for SPANE-B (Wu, Yeh, & Woodside, 2014) in relation to the seven antecedents. Next, the overall solutions from the training and validation samples are compared for their ability to predict the same recipes. The last sections of Tables 6, 7 and 8 summarize the results from these analyses. The results show similar consistency and coverage for both the testing and training data sets. Overall, findings indicate that social media networking ingredients for happiness differ according to generational cohorts as follows: (1) for gen Y, relatedness and competence, (2) for gen X, autonomy and competence, and (3) for baby boomers, competence.

5. Conclusions and implications

The present research explores subjective well-being and the role that psychological needs play as motivating factors in many aspects of the virtual experience. Existing research connects happiness and aging and argues that aging impacts the preoccupation with negative life events (Strough et al., 2016). This preoccupation leads to lower overall positive emotional well-being and affect balance (Pinquart, 2001). To extend the research on social media and aging (Krishen et al., 2016), the present research explores the overlap of psychological needs with the social networking experience. It focuses on participants' affect balance according to their past four weeks of social media networking. By calibrating affect balance using a fuzzy SPANE, the present study proposes a new qualitative mechanism to evaluate subjective well-being.

This study applies SDT and SPANE to the social media experience and assesses the positive, negative, and overall affect balance of participants, thereby giving an indication of which set of ingredients can lead to virtual happiness. Findings indicate that the pursuit of virtual happiness varies with different generations, yet competence spans all of them. Fig. 2 depicts the emergent metaphor from the findings of the

Table 7
Solutions for gen X group.

Complex solution			
Frequency cutoff: 13.00 Consistency cutoff: 0.838187	Raw coverage	Unique coverage	Consistency
Relatedness Competence * ~ autonomy ~ Competence * autonomy Solution coverage: 0.813097 Solution consistency: 0.726422	0.630011 0.420490 0.434671	0.185470 0.067722 0.074225	0.759688 0.804320 0.822092
Parsimonious solution			
Frequency cutoff: 13.00 Consistency cutoff: 0.838187	Raw coverage	Unique coverage	Consistency
Competence Relatedness Autonomy Solution coverage: 0.864556 Solution consistency: 0.699646	0.641298 0.630011 0.654995	0.074847 0.048862 0.083956	0.759221 0.759688 0.770014
Intermediate solution			
frequency cutoff: 13.00 consistency cutoff: 0.838187	Raw coverage	Unique coverage	Consistency
relatedness Autonomy * ~ competence ~ Autonomy * competence Solution coverage: 0.813097 Solution consistency: 0.726422	0.630011 0.434671 0.420490	0.185470 0.074225 0.067722	0.759688 0.822092 0.804320
Predictive validity testing			
Training sample (<i>n</i> = 83) Overall solution consistency	Overall solution coverage	Validity sample (<i>n</i> = 82) Overall solution consistency	Overall solution coverage
0.750772	0.796130	0.764440	0.771703

present study, overlaying the generations and their social media experiences with SDT.

Self-definition is malleable at a younger age. As individuals age, their self-definition becomes more defined. At an early age (gen Y and millennials in the present study), social media can allow individuals to help themselves in society. Through interacting with others, this group meets their need for relatedness and develops their individual sense of self. This is where social influence and social acceptance play a key role in the pursuit of virtual happiness for millennials. They use posting, liking, tagging, sharing, and other behaviors to help create their self-identities (Raab, Berezan, Krishen, & Tanford, 2016). In essence, they choose social media as a way of pursuing an online identity that can lead to virtual happiness. The present study refers to gen Y as the “we” cohort wherein social influence can potentially play a key role, and therefore a balance of relatedness and competence is the recipe for virtual happiness. Hence, a key motivation for gen Y individuals when using social media is relatedness. However, because countless entities are often involved in satisfying the need of relatedness at this “we” stage, individuals have less control over the social influences that act upon their sense of well-being. This is consistent with the literature on the impact of ordinary and extraordinary events on happiness (Bhattacharjee & Mogilner, 2014). Their research shows that when individuals are younger, extraordinary experiences define one's self-concept more; whereas as they age, extraordinary experiences influence one's self-concept less and ordinary experiences have more influence. Applying this idea to the present study, gen Y individuals' need for relatedness may typically be met by more extraordinary experiences such as meeting and interacting with new and interesting people. Specific to social media, this need may include being innovative in the use of multiple social media platforms, including ones such as Instagram, Snapchat, and YouTube and finding ways to increase

Table 8
Solutions for gen Y group.

Complex solution			
Frequency cutoff: 19.00 Consistency cutoff: 0.842207	Raw coverage	Unique coverage	Consistency
Autonomy	0.640082	0.233033	0.750415
Competence * relatedness	0.497912	0.090863	0.805499
Solution coverage: 0.730945 Solution consistency: 0.737053			
Parsimonious solution			
Frequency cutoff: 19.00 Consistency cutoff: 0.842207	Raw coverage	Unique coverage	Consistency
Relatedness	0.649212	0.139450	0.749425
Autonomy	0.640082	0.130320	0.750415
Solution coverage: 0.779532 Solution consistency: 0.717298			
Intermediate solution			
Frequency cutoff: 19.00 Consistency cutoff: 0.842207	Raw coverage	Unique coverage	Consistency
Autonomy	0.640082	0.233033	0.750415
competence * relatedness	0.497912	0.090863	0.805499
Solution coverage: 0.730945 Solution consistency: 0.737053			
Predictive validity testing			
Training sample (n = 147)		Validity sample (n = 146)	
Overall solution consistency	Overall solution coverage	Overall solution consistency	Overall solution coverage
0.723481	0.700231	0.728661	0.703811

relatedness in these platforms. This cohort actively seeks to develop their self-concept through highly active social networking activity and platforms. It is also important to consider that millennials in general are group-oriented and have developed in a more connected world than previous generations (Obal & Kunz, 2013), which may influence their higher need for relatedness in social networking to achieve virtual happiness.

As people gain more life experiences, such as in gen X, they develop

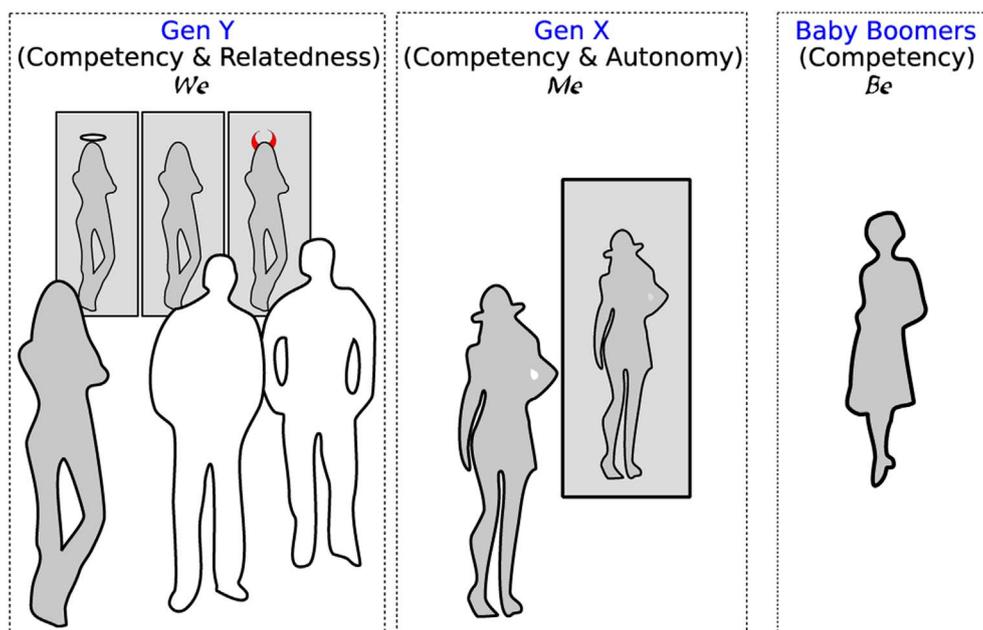


Fig. 2. Self-concept, social media, and motivations.

and move away from the need to be as high in relatedness. In general, gen X is more independent than gen Y (Howe & Strauss, 2007; Pew Research, 2010). At this stage, the need for autonomy becomes paramount to self-concept and happiness. The present research metaphorically suggests that gen X individuals may look into a mirror and evaluate who they are and whether the person in the mirror is in sync with their self-concept; hence, it is the “me” or “Is this me?” stage. Rather than pursuing social media behaviors that result in and create social influence, this cohort may seek to ensure that their social networking behaviors accurately reflect who they are as individuals and portrays them as independent.

Finally, further development due to age and life experiences (baby boomers) brings individuals to a place where they have little to prove to others or to themselves. Therefore, the present research conceptualizes the metaphor for baby boomers to be – “I am who I am” or “Let it be” – the “be” stage. People at this stage may feel little social pressure to be anything other than what and who they perceive themselves to be. The recipe for virtual happiness at the “be” stage mainly relies on the need for competence. Baby boomers focus on personal growth and self-fulfillment but are not necessarily as comfortable with new technology and platforms (such as social media networking) as the younger generations (Littrell, Ma, & Halepete, 2005; Obal & Kunz, 2013). Since they have less social pressure, their recipe for virtual happiness is much simpler. This group must satisfy the need for competence, or in this study, have the knowledge and ability to effectively use social media.

6. Limitations and future research

The present study offers insights into the behavioral motivations for social media use across generations from a SDT perspective. However, this study also has limitations that lay the groundwork for future research. One such limitation centers on the differences between age and generational cohorts. Whereas individuals within each generational cohort share experiences and motivations that make them similar in some ways, the aging process itself also shifts the individual definitions of, and thereby the recipes for, happiness. Therefore, future research can conduct longitudinal studies that overlay both generational cohorts and aging as a process to determine the antecedents to virtual happiness in social media behavior. The present study is limited due to the grouping of multiple social media networking platforms into one complex entity per generation. Instead, a future study could investigate

individual platforms of interest as a variable itself and delineate differences in platform preferences across generations. Another potential limitation of this study is its method and sample characteristics; future research can use other qualitative and quantitative methodologies and gather larger samples to further validate these findings. Building on the current findings as well as others including Berezan, Krishen, Tanford, and Raab (2017), Krishen et al. (2016), and Noble et al. (2009), additional quantitative designs can uncover direct relationships and test theoretical models to triangulate these qualitative findings. Future research can also explore the impact of cross-cultural differences on social media antecedents to happiness. Finally, a further understanding of social media motivations and behaviors through the overlay of both emotional and cognitive outcomes presents another future opportunity for research.

References

- Barnhart, M., & Peñaloza, L. (2013). Who are you calling old? Negotiating old age identity in the elderly consumption ensemble. *Journal of Consumer Research*, 39(6), 1133–1153.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497.
- Berezan, O., Krishen, A. S., Tanford, S., & Raab, C. (2017). Style before substance? Building loyalty through marketing communication congruity. *European Journal of Marketing*, 51(7/8), 1332–1352.
- Berezan, O., Raab, C., Krishen, A. S., & Love, C. (2015). Loyalty runs deeper than thread count: An exploratory study of gay guest preferences and hotelier perceptions. *Journal of Travel & Tourism Marketing*, 32(8), 1034–1050.
- Bhattacharjee, A., & Mogilner, C. (2014). Happiness from ordinary and extraordinary experiences. *Journal of Consumer Research*, 41(1), 1–17.
- Bosangit, C., & Demangeot, C. (2016). Exploring reflective learning during the extended consumption of life experiences. *Journal of Business Research*, 69(1), 208–215.
- Bradburn, N. M. (1968). *The structure of psychological well-being*. Chicago: Aldine.
- Carter, T. J., & Gilovich, T. (2012). I am what I do, not what I have: The differential centrality of experiential and material purchases to the self. *Journal of Personality and Social Psychology*, 102(6), 1304–1317.
- Chen, X., Chen, Y., & Xiao, P. (2013). The impact of sampling and network topology on the estimation of social intercorrelations. *Journal of Marketing Research*, 50(1), 95–110.
- Deci, E. L., & Ryan, R. M. (1985). The general causality orientations scale: Self-determination in personality. *Journal of Research in Personality*, 19(2), 109–134.
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268.
- Deci, E. L., & Ryan, R. M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies*, 9(1), 1–11.
- Diener, E., & Seligman, M. (2004). Beyond money: Toward an economy of well-being. *Psychological Science in the Public Interest*, 5(1), 1–31.
- Diener, E., Nickerson, C., Lucas, R. E., & Sandvik, E. (2002). Dispositional affect and job outcomes. *Social Indicators Research*, 59, 229–259.
- Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D. W., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, 97(2), 143–156.
- Doster, L. (2013). Millennial teens design and redesign themselves in online social networks. *Journal of Consumer Behaviour*, 12(4), 267–279.
- Elmore, T. (2014). *Homelanders: The next generation*. Psychology Today. Retrieved from <https://www.psychologytoday.com/blog/artificial-maturity/201402/homelanders-the-next-generation>.
- Emmenegger, P., Schraff, D., & Walter, A. (2014). QCA, the truth table analysis and large-N survey data: The benefits of calibration and the importance of robustness tests. *2nd International QCA Expert Workshop, November, Zurich, Switzerland*.
- Guevarra, D. A., & Howell, R. T. (2015). To have in order to do: Exploring the effects of consuming experiential products on well-being. *Journal of Consumer Psychology*, 25(1), 28–41.
- Howe, N., & Strauss, W. (2007). The nest 0 years: How customer and workforce attitudes will evolve. *Harvard Business Review*, 85(7/8), 41–52.
- Jovanovic, V. (2015). Beyond the PANAS: Incremental validity of the scale of positive and negative experience (SPANE) in relation to well-being. *Personality and Individual Differences*, 86, 487–491.
- Kaufman, G. F., & Libby, L. K. (2012). Changing beliefs and behavior through experience-taking. *Journal of Personality and Social Psychology*, 103(1), 1–19.
- Kawakami, K., Phills, C. E., Greenwald, A. G., Simard, D., Pontiero, J., Brnjas, A., ... Dovidio, J. F. (2012). In perfect harmony: Synchronizing the self to activated social categories. *Journal of Personality and Social Psychology*, 102(3), 562–575.
- Krasnova, H., Widjaja, T., Buxmann, P., Wenninger, H., & Benbasat, I. (2015). Why following friends can hurt you: An exploratory investigation of the effects of envy on social networking sites among college-age users. *Information Systems Research*, 26(3), 585–605.
- Krishen, A. S., Berezan, O., Agarwal, S., & Kachroo, P. (2016). The generation of virtual needs: Recipes for satisfaction in social media networking. *Journal of Business Research*, 69(11), 5248–5254.
- Krishen, A. S., Raschke, R. L., Close, A. G., & Kachroo, P. (2017). A power-responsibility equilibrium framework for fairness: Understanding consumers' implicit privacy concerns for location-based services. *Journal of Business Research*, 73(4), 20–29.
- Li, F., Bai, X., & Wang, Y. (2013). The scale of positive and negative experience (SPANE): Psychometric properties and normative data in a large Chinese sample. *PLoS One*, 8(4), e61137. <http://dx.doi.org/10.1371/journal.pone.0061137>.
- Littrell, M. A., Ma, Y. J., & Halepete, J. (2005). Generation X, baby boomers, and swing: Marketing fair trade apparel. *Journal of Fashion Marketing and Management*, 9(4), 407–419.
- Markert, J. (2004). Demographics of age: Generational and cohort confusion. *Journal of Current Issues and Research in Advertising*, 26(2), 11–25.
- Mogilner, C., Kamvar, S. D., & Aaker, J. (2011). The shifting meaning of happiness. *Social Psychological and Personality Science*, 2(4), 395–402.
- Noble, S. M., Haytko, D. L., & Phillips, J. (2009). What drives college-age generation Y consumers? *Journal of Business Research*, 62(6), 617–628.
- Obal, M., & Kunz, W. (2013). Trust development in e-services: A cohort analysis of millennials and baby boomers. *Journal of Service Management*, 24(1), 45–63.
- Ong, C., Chang, S., & Lee, S. (2015). Development of WebHapp: Factors in predicting user perceptions of website-related happiness. *Journal of Business Research*, 68(3), 591–598.
- Pew Research (2010). Millennials: A portrait of generation next. Retrieved from <http://www.pewsocialtrends.org/2010/02/24/millennials-confident-connected-open-to-change/>.
- Pinquart, M. (2001). Age differences in perceived positive affect, negative affect, and affect balance in middle and old age. *Journal of Happiness Studies*, 2(4), 375–405.
- Raab, C., Berezan, O., Krishen, A. S., & Tanford, S. (2016). What's in a word? Building program loyalty through social media communication. *Cornell Hospitality Quarterly*, 57(2), 138–149.
- Raghuathan, R., & Corfman, K. (2006). Is happiness shared doubled and sadness shared halved? Social influence on enjoyment of hedonic experiences. *Journal of Marketing Research*, 43(3), 386–394.
- Rayburn, S. W. (2014). Improving service employee work affect: The transformative potential of work design. *Journal of Services Marketing*, 28(1), 71–81.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68–78.
- Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52(1), 141–166.
- Sapmaz, F., Doğan, T., Sapmaz, S., Temizel, S., & Tel, F. D. (2012). Examining predictive role of psychological need satisfaction on happiness in terms of self-determination theory. *Procedia-Social and Behavioral Sciences*, 55, 861–868.
- Scheinbaum, A. (2017). *The dark side of social media: A consumer psychology perspective*. New York: Routledge.
- Schimmack, U., Diener, E., & Oishi, S. (2002). Life-satisfaction is a momentary judgment and a stable personality characteristic: The use of chronically accessible and stable sources. *Journal of Personality*, 70, 345–384.
- Sheldon, K. M., Abad, N., & Hirsch, C. (2011). Two-process view of Facebook use and relatedness need-satisfaction: Disconnection drives use, and connection rewards it. *Journal of Personality and Social Psychology*, 100(4), 766–775.
- Sim, J. J., Goyle, A., McKedy, W., Eidelman, S., & Correll, J. (2014). How social identity shapes the working self-concept. *Journal of Experimental Social Psychology*, 55, 271–277.
- Strough, J., de Bruin, W. B., Parker, A. M., Lemaster, P., Pichayothin, N., & Delaney, R. (2016). Hour glass half full or half empty? Future time perspective and preoccupation with negative events across the life span. *Psychology and Aging*, 31(6), 558–573.
- Vignoles, V. L., Regalia, C., Manzi, C., Gollidge, J., & Scabini, E. (2006). Beyond self-esteem: Influence of multiple motives on identity construction. *Journal of Personality and Social Psychology*, 90(2), 308–333.
- Woodside, A. G. (2013). Moving beyond multiple regression analysis to algorithms: Calling for adoption of a paradigm shift from symmetric to asymmetric thinking in data analysis and crafting theory. *Journal of Business Research*, 66(4), 463–472.
- Wu, P. L., Yeh, S. S., & Woodside, A. G. (2014). Applying complexity theory to deepen service dominant logic: Configurational analysis of customer experience-and-outcome assessments of professional services for personal transformations. *Journal of Business Research*, 67(8), 1647–1670.
- Yuksel, M., Milne, G. R., & Miller, E. G. (2016). Social media as complementary consumption: The relationship between consumer empowerment and social interactions in experiential and informative contexts. *Journal of Consumer Marketing*, 33(2), 111–123.