Native American subjective happiness, self-construal, and decision-making

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Abstract
Descendants of indigenous people in the United States (Native Americans) are underrepresented in happiness studies. The social-cognitive mechanisms involved in happiness are also poorly understood. Here we test a social-cognitive model for theorizing the happiness of Native Americans. Self-identified Native Americans (120 women, 59 men, aged 18–79 years) in the Phoenix, Arizona metropolitan area answered a survey which measured interdependent and independent self-construals, decision-making style (satisficing and maximizing), and subjective happiness. Relationships among these variables were examined using path analysis. For the participants’ happiness, independent self-construal was relatively less important than interdependent self-construal, as social harmony and interdependence with others tend to be salient traditional Native American cultural values. However, in agreement with previous studies with Euro-American samples, subjective happiness was positively correlated with satisficing, and negatively correlated with maximizing, suggesting societal factors such as the availability of options and choices in the U.S. as possible influences. These findings contribute to the literature by revealing the basis of happiness in social-cognitive processes, and have important implications for understanding the happiness of an under-researched population.

Keywords Subjective happiness · Native Americans · Maximizing · Satisficing · Self-construal

While there has been ample research in the United States (U.S.) on the happiness of Euro-Americans (i.e., people descended from European settlers), the descendants of indigenous people are underrepresented in the literature. The social-cognitive mechanisms involved in happiness are also poorly understood, especially for ethnic minority groups (Suh, 2000). To fill this vacuum, this study contributes a novel social-cognitive model for theorizing the happiness of Native Americans1.

Native Americans are the indigenous people of the U.S. who had well established and diverse identities and cultures long before European contact (Thornton, 2000 [Aniyunwiya]2). This great diversity among Native American tribes still stands today. At present, there are 573 federally recognized3 Native American tribes in the U.S. as well as groups recognized by individual states or with no official recognition (U.S. Department of the Interior: Indian Affairs, 2020). About 5.2 million people in the U.S. self-identify as Native American, their population is increasing (Norris, Vines, & Hoeffel, 2012), and some tribes have greater numbers today even than at the beginning of colonization (Thornton, 2000). Native Americans have unique cultural identities related to their indigenous roots, traditional values, historical trauma, colonization, and levels of acculturation (Bobb, 2000; Duran [Opelousas and Coushatta], Duran [Apache, Tewa and Lakota], & Brave Heart [Hunkpapa and Oglala).
Native American conceptions of happiness differ markedly from Euro-American views that are anchored on individual and personal achievement. A holistic approach to life, whereby mental, physical, and spiritual well-being and everything in the world are interconnected and in harmony, is central to Native American culture (Lefter, 2005; Weaver [Lakota], 2002). For example, Willeto [Diné] (2005) notes the importance of ‘walking in beauty’ (Hózhó Násháádóó)—a philosophy of life that balances a person’s values and actions with family, community, nature, and the cosmos and universe—in indigenous notions of happiness (Hózhó) among the Diné people, a federally recognized tribal nation in several southwestern U.S. states. Conversely, unhappiness and ill-health are interpreted as discord and imbalance with any or all of these parts (Hodge [Wailaki] & Nandy, 2011; Willeto, 2012). The prominence of happiness in Native American heritage is evident from its inclusion in the Iroquois Constitution (also known as the Great Law of Peace) (Akwesasne Notes, 1991), an agreement that united six tribal nations (Iroquois Confederacy), one of the country’s earliest diplomatics that subsequently influenced the U.S. Constitution. Although scholars do not agree on whether the Iroquois Constitution was created in 1142 or 1451, in either case it came before the European invasion likely indicating that Native American conceptions of happiness predates European influence. However, most studies on the well-being of Native Americans emphasize negative aspects, and infer disproportionately higher rates of mental health problems such as post-traumatic stress, substance use, suicide, and violence (Gone [Gros Ventre] & Trimble [Lakota Oyate], 2012). Also, research is very limited, and consequently the knowledge base for remedying these alarming disparities is inadequate.

Indigenous perspectives on happiness demonstrate its inclusion in people’s thinking and orientation towards each other and the world, and therefore raise questions about the specific social-cognitive mechanisms of happiness in this population—an unstudied topic. A notable accomplishment in understanding the antecedents of happiness in other cultures is recognition of interdependent and independent self-construasls, (i.e., the extent to which an individual’s actions, feelings, and thoughts which make meaning of the self are defined either interdependently with others or independently of others) (Kitayama & Markus, 2000; Markus & Kitayama, 1991, 2003). Although all individuals construe themselves in multiple ways, either the relational or individual self-aspect can be relatively more salient and integral in one’s evaluations of subjective happiness. Individuals with an interdependent self-construal tend to be socialized in collectivist cultures (i.e., in which people prioritize the in-group over the self), and therefore focus more on social contexts and relations between the self and others, especially harmonious interpersonal relationships and the ways they can fit in and benefit their social group, and they view the world more holistically (Kitayama & Markus, 2000; Markus & Kitayama, 1991, 2003; Singelis, 1994). This description aligns with Native American notions of happiness, which are socially oriented and involve other-focused social-cognitive processes such as socially responsible thoughts and actions (Kahn-John [Diné] & Koithan, 2015), and also the finding that Native American college students reported a greater proportion of collective self-cognitions than Euro-American college students (Trafimow & Smith, 1998). In contrast, people with an independent self-construal tend to be from cultures that are individualistic in orientation (i.e., regard the self as distinct and separate from others), prioritize personal abilities, goals, thoughts, and preferences over those of others, and consider interpersonal relationships advantageous when they benefit or support oneself (Kitayama & Markus, 2000; Markus & Kitayama, 1991, 2003; Singelis, 1994). These characteristics align more with Euro-American self-focused evaluations of happiness (and may more closely align with the views of Native Americans who are influenced more by the mainstream U.S. society than by more traditional Native American cultural values). Studies have explicated complex relationships between culture, self-construal, and happiness (Diener & Lucas, 2000; Kitayama & Markus, 2000; Suh, 2000; Uchida, Norasakkunkit, & Kitayama, 2004). Of relevance for the present study, cultures can differ in which type of self-construal is salient in happiness. For example, interdependent self-construal is more applicable to explaining happiness in individuals from collectivist cultures with limited individualistic influences (e.g., countries with limited modernization). Independent self-construal is more relevant to happiness in Western (individualistic) cultures, and both types of self-construal are important in happiness in collectivistic cultures with individualistic influences (e.g., modernized non-Western countries), although the patterns can be complex (Cheng et al., 2011; Suh, 2000). However, research on Native Americans’ self-construal is limited.

Decision-making style also stands at the junction of self-cognition and happiness, as the choices people make entail positive and negative consequences and experiences. Maximization is when an individual chooses the single best option among abundant options by expending resources to explore “all possible opportunities” (p. 48) (i.e., ‘alternative search’), and it involves some degree of difficulty when making choices, (i.e., ‘decision difficulty’) (Turner et al., 2012). In contrast, satisficing is settling for a good enough option and then ceasing searching rather than continuing to pursue the quest for the best option (Turner et al., 2012). Although
research on Native Americans is lacking, studies show they are more likely than Euro-Americans to make choices guided by social-oriented needs and family and community and even future generations (Brown & Lent, 2005; Garrett [Aniyunwiya] & Garrett [Aniyunwiya], 1994; King [Muscogee], Tempel, and Draguns, 2010). It is a carefully considered and cautious approach which seems to correspond more with maximizing than satisficing. This might be relevant to explaining their happiness, since the realization of interpersonal relations and social harmony is crucial for happiness in collectivist cultures, whereas personal achievement and gratifying individual needs are central to the happiness of Euro-Americans (Oishi & Diener, 2001; Uchida et al., 2004). Furthermore, studies show that maximizing is negatively correlated with various indicators of happiness, and positively correlated with depression and maladaptive cognitions, whereas satisficing is positively correlated with measures of happiness and good mental health (Rim, Turner, Betz, & Nygren, 2011; Schwartz et al., 2002; Turner et al., 2012). The happiness of maximizers is compromised by their extensive search and decision procedures, worrying about options, and anticipating regret or feeling dissatisfied with decisions, despite achieving better objective outcomes; in contrast, satisficers find it easier to make decisions and live with the consequences, which is conducive to their happiness (Schwartz et al., 2002; Schwartz, Ben-Haim, & Dasco, 2011; Turner et al., 2012). However, negative associations between maximizing and well-being can be weaker or non-existent in countries where choice is more limited and less valued as a path to happiness (Roets, Schwartz, & Guan, 2012). Unfortunately, most research has been conducted in majority ethnic groups in Western countries, and Native Americans are under-studied.

Tying these strands together, this study tests a social-cognitive model consisting of interdependent and independent self-construals, and decision-making (satisficing, maximizing), for theorizing the subjective happiness in Native Americans. Drawn on the interdependence–independence theory of the self (Kitayama & Markus, 2000; Markus & Kitayama, 1991, 2003), self-construal is regarded as the exogenous variable as it is the core of self-definition and evokes all psychological processes in social life including how individuals feel and think (Kitayama & Markus, 2000; Markus & Kitayama, 1991, 2003; Suh, 2000; Uchida et al., 2004). As self-construal is likely to shape the choices people make, decision-making (satisficing or maximizing) constitutes the consequent level in the model (i.e., the outcome of self-construal). Both types of self-construal and decision-making style are included in the model because there is variation in the Native American population in endorsement of indigenous and modern values (Bobb, 2000; Garrett & Pichette, 2000). Subjective happiness is the outcome variable because it is known to variably result from decision-making style (Rim et al., 2011; Schwartz et al., 2002; Turner et al., 2012). In accordance with previous studies reviewed above, it is hypothesized that subjective happiness is the outcome of either satisficing or maximizing, which, in turn, is influenced by interdependent and independent self-construal. Figure 1 charts the proposed path model of the hypothesized relationships between these variables. Regarding directions, it is hypothesized that interdependent self-construal is positively associated with maximizing while independent self-construal is positively associated with satisficing. It is also hypothesized that satisficing is positively associated with subjective happiness while maximizing is negatively associated with subjective happiness.

Method

Participants

A total of 179 participants who self-identified as Native American (120 women, 59 men, aged between 18 and 79 years-old) were recruited via convenience sampling in the Phoenix, Arizona metropolitan area. Only urban residents were sampled because the Native American population is now mostly urban (only about 22% live on tribal lands). The survey requested that participants mark if they were enrolled in a federally or state recognized tribe and the name of the tribe. The majority of participants indicated belonging to a federally recognized tribe (86%), only 1.1% indicated belonging to a state recognized tribe, about 1/10 stated they belonged to a non-recognized tribe (10.6%), and the remainder 2.2% of the surveys were missing this data. The majority of the sample self-identified as from one specific tribe (n = 143). The specific tribes included Navajo/Diné (n = 89), Cherokee/Aniyunwiya (n = 15), Hopi (n = 8), Tohono O’odham (n = 6), Pueblo (n = 4), Apache (n = 4), Lakota (n = 3), Pima (n = 2), Blackfoot (n = 1), Chipewa (n = 1), Ho-Chunk (n = 1), Kiowa (n = 1), Mi’kMaq (n = 1), Mohave (n = 1), Ojibwe (n = 1), Purepecha (n = 1), Seneca (n = 1), Yaqui (n = 1) and Zuni (n = 1). Smaller proportions of the sample identified as coming from two tribes (n = 26) or three or more tribes (n = 10).

Measures

Self-Construal The Self-Construal Scale (Singelis, 1994) consists of 24 items which measure actions, feelings, and thoughts...
comprising interdependent and independent self-construals. It consists of the interdependent self-construal subscale (e.g., “My happiness depends on the happiness of those around me”; Cronbach’s $\alpha = .78$) and independent self-construal subscale (e.g., “I enjoy being unique and different from others in many respects”; Cronbach’s $\alpha = .73$), each with 12 items answered on a 7-point Likert-type scale (1 = strongly disagree, 7 = strongly agree). The item scores in each scale were summed to yield two total scores representing the strength of an individual’s interdependent self- or independent self-construal respectively, with higher scores indicating greater strength.

Satisficing/Maximization The Maximization Inventory (Turner et al., 2012) is a 34-item, 5-point Likert-like scale that measures satisficing (10 items, e.g., “I usually try to find a couple of good options and then choose between them”), alternative search (12 items, e.g., “I can’t come to a decision unless I have carefully considered all of my options”), and decision difficulty (12 items, e.g., “I usually have a hard time making even simple decisions”). Response options range from 1 = strongly disagree to 5 = strongly agree. The item scores measuring satisficing were summed to produce a total satisficing score (Cronbach’s $\alpha = .80$), with a higher score indicating a greater satisficing tendency. The alternative search and decision difficulty subscales of the Maximization Inventory have been both found to be correlated with the previous Maximization Scale and Maximization Tendency Scale and therefore both appear to be measuring maximization (Turner et al., 2012). Because the current study was only interested in maximization generally rather than differentiating the distinct maximizing factors (i.e., alternative search and decision difficulty) the subscale scores measuring these two factors were combined and summed to create a total maximizing score (Cronbach’s $\alpha = .90$), with a higher score indicating a greater maximizing tendency. Others (e.g., Rim, 2013) have also used this approach of summing the two subscales to obtain a total maximizing score.

Subjective Happiness The Subjective Happiness Scale (Lyubomirsky & Lepper, 1999) is a 4-item, 7-point self-report Likert-type scale that measures overall subjective happiness based on the individual’s own perspective (i.e., a self-assessment of whether they are a happy or an unhappy person). Items 1 and 2 ask the respondent to rate their own happiness (1 = not a very happy person, 7 = a very happy person) and their own happiness relative to their peers (1 = less happy, 7 = more happy), respectively. The third and fourth items briefly characterize happy and unhappy individuals respectively and ask the respondent to rate the extent to which each describes themselves (1 = not at all, 7 = a great deal). The scores of the four items (after reverse coding the fourth item) were averaged to compute a total score ranging from 1.0 to 7.0, with higher scores indicating greater subjective happiness. In agreement with previous reports of satisfactory psychometric properties (e.g., Lyubomirsky & Lepper, 1999), the Cronbach’s $\alpha$ was .89.

Procedure

The Arizona State University (ASU) Institutional Review Board determined the study to be exempt from review (Ref: STUDY00000955). Participants were recruited in 2014 at various locations on the ASU Tempe campus including at a Native American festival, ($n = 127$); at a banquet held for Native American students and community members ($n = 38$); and in an American Indian Studies masters course ($n = 9$). A few other participants were sampled at a monthly social event in Phoenix held by a non-profit organization among the Aniyunwiya community ($n = 11$). Inclusion criteria were self-identification as Native American, and a minimum age of 18. To recruit participants, a booth was set up at the festivals, and an announcement was made in the class and at the monthly gathering; participants were entered in a drawing for 9 cash prizes of $20 each. Informed consent was obtained, and eligible participants completed a paper-and-pencil version of the survey. The language of the survey was English. The survey was anonymous, although participants’ names and contact details were collected separately for the prize drawing. The data were collected by the first author, a Native American (Aniyunwiya) with knowledge of indigenous customs, practices, and formalities who attempted to minimize issues such as ethnocentric assumptions, further colonization,
and potential exploitation of the population (Gone & Trimble, 2012; Smith, 2012).

Data Analysis

Descriptive analyses were first conducted to summarize the study variables. Path analysis was then applied to examine relationships among the variables in the hypothesized model: subjective happiness is predicted by self-construal and decision-making. While chi-square was traditionally considered as a model fit criterion, due to the weakness of this statistic (see e.g., Tanaka, 1993; Ullman, 2019), we evaluated the model fit based on other heuristic goodness-of-fit metrics including the Tucker-Lewis index (TLI), the comparative fit index (CFI), and the root mean square error of approximation (RMSEA) following Hu and Bentler’s (1999) recommendations. Missing data were dealt with using the maximum likelihood approach in Stata 15.1.

Results

Descriptive Results

As shown in Table 1, subjective happiness was associated with satisficing, maximizing, and independent self-construal. Constructs in self-construal and maximization mostly had inter-correlations.

The Social-Cognitive Model Predicting Subjective Happiness

Overall, the hypothesized model (see Fig. 2) showed good fit in the path analysis, \( \chi^2(9) = 105.13, p < .001 \); RMSEA = .05, CFI/TLI = .99/.96. All paths showed a significant relationship except for the association between independent self-construal and maximizing (\( B = -.13, p = .079 \)). While satisficing positively (\( B = .34, p < .001 \)) correlated with subjective happiness, the maximizing-happiness association was negative (\( B = -.23, p = .001 \)). Interdependent self-construal was positively associated with both satisficing (\( B = .16, p = .018 \)) and maximizing (\( B = .34, p < .001 \)), but independent self-construal was only positively associated with satisficing (\( B = .43, p < .001 \)).

Discussion

The aim of this study was to examine the relationships between subjective happiness, decision-making style (maximizing and satisficing), and self-construal (independent and interdependent) with a rarely studied population, Native Americans. Participants were recruited via convenience sampling and asked to complete a quantitative survey containing measures of the above variables. Results based on path analysis support our hypothesis that subjective happiness could be explained by the proposed social-cognitive processes. As hypothesized, subjective happiness can be theorized as an outcome of maximizing or satisficing which, in turn, is determined by interdependent or independent self-construal. While both self-construals showed some associations with satisficing and maximizing, the non-significant path between independent self-construal and maximizing indicates the relatively more important role of interdependent self-construal for Native Americans. This concurs with the emphasis in Native American culture on interdependence with others, and sustaining everyone’s needs and social harmony in decision-making and happiness (in contrast to people socialized in Euro-American culture that have more individual-focused notions of self and engagement in satisficing, reflecting emphasis on personal achievement and choice in decision-making and happiness).

The positive correlations between subjective happiness and satisficing, and negative correlations between subjective happiness and maximizing, are also in line with our hypotheses as well as previous studies (Oishi, Tsutsui, Eggleston, & Galinha, 2014; Rim et al., 2011; Schwartz et al., 2002; Turner et al., 2012). However, the results also build on previous studies by providing proximal explanations in social-cognitive processes. For example, satisficing enables people with individual orientations of selfhood to gratify individual needs and achievement that are central to their happiness

| Table 1 Pearson zero-order correlations of study variables | M   | SD  | 1   | 2   | 3   | 4   | 5
|----------------------------------------------------------|-----|-----|-----|-----|-----|-----|-----|
| 1. Subjective happiness                                   | 22.51 | 4.62 |    |    |    |    |    |
| 2. Independent self-construal                            | 65.62 | 8.86 | 0.29***|    |    |    |    |
| 3. Interdependent self-construal                         | 61.16 | 10.15 | 0.00 | 0.23**|    |    |    |
| 4. Satisficing                                           | 43.30 | 4.80 | 0.33***| 0.46***| 0.25***|    |    |
| 5. Maximizing                                            | 79.73 | 16.01 | -0.22**| -0.05 | 0.31***| 0.03 | -    |

Note. For zero-order correlations, the absolute value represents the size of the effect (Cohen, 1992). *p < .05, **p < .01, ***p < .001
Given that both interdependence and satisficing seem to be positively associated with Native American subjective happiness, mental health professionals can explore these topics in depth with their clients in ways that might have positive impacts on happiness. Practitioners can keep in mind and help their Native American clients to understand that lifestyles that emphasize independence and making decisions by maximizing may detract from happiness while interdependence and satisficing may contribute to happiness. These findings are important because previous attempts to tailor evidence-based treatments to the needs of Native Americans are limited (Gone & Trimble, 2012). Hence, the above suggestions may not be appropriate for all individuals; rather, practitioners should also assess individual factors such as urban versus rural background, traditionalism, and level of acculturation to Euro-American culture as all of these can affect the self-construal of Native Americans and may impact their subjective happiness (Bobb, 2000; Garrett & Pichette, 2000; Hossain, Skurky, Joe, & Hunt, 2011).

Next, policy makers and other leaders may also wish to take into consideration the above implications when designing practices and policies that affect Native American people. They could advocate social policies that have potential to boost this population’s subjective happiness in ways that are in line with Native American cultural factors, values, and strengths. Rather than superimposing Western conceptualizations of happiness on Native Americans, policy makers, practitioners, leaders, and researchers should build upon the results of this study to design decolonized policies, practices, programs, and studies that expand our understanding and utilization of indigenous happiness paradigms. This seems congruent with actions currently being undertaken by many Native American tribes to revive traditions through social gatherings, cultural immersion programs, and teachings on Native American language, history, and literature.

**Limitations**

This study is limited by its moderate sample size and cross-sectional design. Longitudinal and experimental research is needed to replicate the proposed inter-construct relationships. Further research can identify additional cognitive antecedents.
A more fine-grained investigation can sample more from the many federally or state recognized/unrecognized tribes within the U.S. and explore between-tribe differences. Furthermore, as the current study was likely affected by the authors' Eurocentric biases and training, future researchers should attempt to decrease the influence of colonization on their participants and their results (Smith, 2012).

Conclusion

In conclusion, while we still cannot definitively say that there is one key or explanation for how Native Americans achieve happiness—and of course the vast possible individual differences from the wide diversity and possible acculturation levels cited make that impossible—we are one step closer to understanding some of the influences on this population's happiness. These findings reveal the basis of Native American happiness in social-cognitive processes as an outcome of decision-making style (maximizing or sacrificing) and interdependent or independent self-construal. Specifically, interdependent self-construal is relatively more important in Native American happiness than independent self-construal in line with Native American culture's emphasis on interdependence with others and social harmony. However, similar to prior research with Euro-Americans, subjective happiness is negatively related to maximizing and positively related to sacrificing, implicating societal factors such as choice and option availability in the U.S. as possible explanations rather than traditional cultural values. The findings likely have valuable implications for well-being practices, policies, and research and contribute to our scant knowledge base of decolonized indigenous happiness.

Compliance with Ethical Standards

Research Involving Human Participants The study was approved by the Arizona State University Internal Review Board and was declared “exempt.” IRB ID: STUDY00000955.

Informed Consent Participants were provided with both written and verbal informed consent. They were informed that they could withdraw from the study at any time without any consequence. They were informed that there were no foreseeable risks nor direct benefits of participating. Participants were informed that return of the completed survey indicated consent to participate.

The datasets generated and analyzed during the current study are not publicly available due to potential exploitation of the population and the fact that the participants were informed that the data would not be shared.

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