

Chapter 3

Positive Psychology in Mexico and Central America

Margarita Tarragona

Introduction

Mexico and Central America have been grouped together for this chapter because they are part of Latin America, and they have a shared language, Spanish. But geographically they are part of different regions: Mexico is in North America, together with the United States of America and Canada. Central America is comprised of seven separate countries: Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama.

This chapter briefly describes some of the similarities and differences between Mexico and its Central American neighbors, focusing, of course, on the development of positive psychology in these countries and highlighting some of the researchers that are contributing most significantly to it in these regions.

It is beyond the scope of this chapter to discuss Mexican and Central American history and their rich cultural heritages in any detail. Here is a very general, and overly simplified, view of some of their highlights:

The territories that are now Mexico and the Central American countries were all conquered by Spain in the 1520's. There were strong indigenous civilizations in the region. In Mexico, the Aztecs had a centralized empire, whose local enemies allied themselves with Cortés to fight against the Aztec's domination, therefore supporting the Spanish conquest, while in Central America there was no dominant local power, but many different groups that were scattered across the area. The conquest was violent, decimated the population, not only through war but also through the contagion of diseases that were unknown in the "New World", and it included not only an economic/territorial appropriation, but also a strong religious colonization through evangelization by the Catholic Church.

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The lands that the Spanish conquered were divided politically into two territories: “The New Spain” or “La Nueva España” and the “Capitanía General de Guatemala”, or “General Captainship of Guatemala”. The New Spain included what is now Mexico, plus what are now the U.S. states of California, Nevada, Colorado, Utah, New Mexico, Arizona, Texas, Oregon, Washington and Florida, plus some parts of Montana, Wyoming, Kansas, Oklahoma, Louisiana and even a section of British Columbia in what is now Canada (Ávila Marcué, 2013).

The huge loss of almost 120% of Mexico’s current territory¹ to the US a century later, in the 1850s, partially by selling it, and partly due to invasions and tremendous political pressure from the United States, was a traumatic event in Mexican history that, I believe, is one of the causes of what many describe as an ongoing “love-hate” relationship between Mexico and the United States (a mixture of admiration and resentment).

The other Spanish colony, the “Capitanía General de Guatemala”, comprised what is now Guatemala, Belize, Costa Rica, El Salvador, Honduras and Nicaragua, that is, basically all of today’s Central America (except for Panama).

The Spanish colony lasted for 300 years in Mexico and Central America. Mexico had a war for independence from Spain that started in 1810 and lasted for 10 years, until 1821; while the independence of Central America took place peacefully right after Mexico’s independence (and the central American countries briefly annexed themselves to Mexico for a year, to then declare its independence from both Spain and Mexico in 1823).

Most inhabitants of Mexico and Central America have a combination of indigenous and European ancestry. The variety of indigenous groups in ancient Mexico is still evident today, and recent genetic studies show that Mexico is one of the countries with greatest genetic diversity in the world (González, 2014).

It is important to note that the Real Universidad de México (Royal University of Mexico), founded in 1551, was the first university of the American Continent (Carmona, 2018; Anaya Leal, 2015), and it was based on the educational models of the Universidad de Salamanca, the University of Bologna and the University of Paris. It functioned almost uninterruptedly for over 300 years and was the precursor of the UNAM, the National University of Mexico, which was founded in 1910. Such an early presence of a university in Mexico is a sign of a strong intellectual and academic community that has been an integral part of Mexican history for centuries.

If we fast forward through the decades, we can highlight that Mexico had a very violent agrarian and political revolution early in the twentieth century (from 1910 until 1921), followed by political instability and later experienced a period of economic development known as the “Mexican Miracle” for three decades, from 1940 through 1970. Politically, one party, the PRI, governed for over 60 years and it is generally considered that a truly democratic electoral process began in 1994, when a different party won the presidential election for the first time in the twentieth century. Mexico has experienced increasing levels of violence for most of the

¹Which amounts to almost 15% of the US territory today.

twenty-first century, mostly due to the presence of organized crime and the “war on drugs”.

Central America attempted to be one unified federation in the mid nineteenth century, but that project did not last. In the early twentieth century, most of the economy of the region revolved around agriculture, controlled by North American fruit companies. Later and for much of the twentieth century, several Central American countries experienced guerilla and civil wars. Democratic governments have been strengthened in recent decades, but economic development has been slow and violence and organized crime have plagued the region nowadays (Pastor, 2011).

The following economic data can give us a sense of Mexico and Central America today: Mexico’s territory spans close to two million square kilometers, making it the fourteenth largest country in the world. With a population of over 120 million people, Mexico is the eleventh most populated country on Earth (INEGI, 2015). Mexico is part of the Organization for Economic Co-operation and Development, which groups the world’s 36 strongest economies. Mexico’s economy is considered the fifteenth largest in the world and the second largest in Latin America (Gobierno de México, 2018).

The seven countries in Central America are all small. Their combined territories are a little over 500, 000 square kilometers and the total population of Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama all together adds up to 50 million people. The size of the economies of Central American countries is also very modest, they go from the 175th in the world (Belize) to the 74th in the world (Panama) (World Bank, 2017).

I mention these numbers because the difference in size and economic development between Mexico and the Central American countries is reflected in their respective volume of scientific production. This is the case for research in positive psychology, and the reason why this chapter features a dozen Mexican scholars who study well-being and only one from Central America, specifically from Costa Rica.

Positive Psychology in Mexico

Historically, many movements and developments in psychology that have originated in the US and Europe have tended to take several years to “arrive” in Latin America. This is the case with positive psychology. Mariano Rojas (2016) points out that, with a couple of exceptions, research on happiness in Latin America started with the new millennium. Hernández-Pozo & Salazar-Piñeros (2013), in their overview of papers published in indexed journals that used the term “positive psychology” in their title, abstract or key words between 1960 and 2013, found that less than 8% of those publications were from authors from Latin America, Spain and Portugal, and only about 1% came from Mexico.

This does not mean that there had been no research on well-being and other topics that are now often considered within the realm of positive psychology: Many scholars have studied resilience, healthy psychological development, and quality

of life, for example, but do not necessarily identify their work as “positive psychology”. Still, as we will see in this chapter, positive psychology is growing quickly in Mexico and an increasing number of researchers and practitioners are adopting it as a conceptual framework and an orientation for their work.

Positive Psychology Researchers in Mexico

It is not easy to choose just a few of the many researchers that study happiness and well-being in Mexico. The following list is by no means exhaustive. To compile it I surveyed the literature of Mexican publications on the topic and asked several well-known researchers in the field who they consider to be outstanding leaders in the study of well-being. I then chose some names that appeared repeatedly. I am fully aware that it is an incomplete account of the landscape of positive psychology in Mexico, but I hope it is a good sample of it.

Alejandro Adler

What is positive education? How can we design positive education programs that are appropriate for different cultural contexts? What is the impact of positive education programs? Can positive education programs be scaled to serve very large numbers of students?

These are some of the questions that Dr. Alejandro Adler addresses in his work, which is mostly applied research. Dr. Adler has been the director of International Education at the Positive Psychology Center at the University of Pennsylvania and of the Center for Sustainable Development at Columbia University. He was born and raised in Mexico City and he moved to the US to attend the Wharton School and the School of Arts and Sciences at the University of Pennsylvania, where he earned two bachelor degrees, one in Economics and one in Psychology, as well as a master’s in Psychology. At Penn, he obtained a Ph.D. in psychology, under the tutelage of Dr. Martin Seligman. Dr. Adler’s work has focused on well-being, positive education and public policy. His doctoral dissertation “*Teaching Well-Being Increases Academic Performance: Evidence from Bhutan, Mexico, and Peru*” (2016a) received the 2017 Dissertation Award from the International Positive Psychology Association.

Positive education is the integration of positive psychology skills in school curricula, in addition to traditional academic skills. Dr. Adler is an international leader in positive education and is at the forefront of initiatives to include well-being in public policy throughout the world. His pioneering research has shown that children and adolescents who go through programs that teach skills for well-being not only are happier, but they improve their academic performance too (Adler & Seligman, 2017; Adler, 2017).

Dr. Adler spent several years in Bhutan, to get to know and understand the local culture before designing a positive education curriculum that would be congruent with it. In collaboration with the Bhutanese government, he created a “Gross National Happiness Curriculum” that included 10 life skills: mindfulness, empathy, self-awareness, coping with emotions, communication, interpersonal relationships, creative thinking, critical thinking, decision making and problem solving (Adler, 2010, 2016b). A representative sample of thousands of the nation’s teenagers was taught this curriculum and an equivalent-sized group participated in a placebo program. Adler and his team found that the Gross National Happiness program increased students’ level of well-being, and it improved their academic performance in national standardized tests with a gain that was equivalent to having studied a full additional school year. Adler has done similar studies developing and evaluating programs in Mexico (Educación para el Bienestar, or Education for Wellbeing) and Peru (Escuelas Amigas, Friendly Schools), always being sensitive to cultural differences and designing curricula that are a good fit with the local context. His findings in different nations have been strikingly similar: Students who are part of positive education programs are happier and do better academically (Adler, 2017).

Dr. Adler is a scholar who travels all over the world and he is an active participant in different organizations that study, assess and promote well-being, such as the United Nations, the Organization for Economic Co-operation and Development (OECD) and the World Bank. He is also an advisor to policy makers on well-being and education in various countries, including Mexico, Peru, Colombia, Australia, UAE, Bhutan, Nepal, India and China. It is especially notable that he is part of the United Nation’s International Well-being Expert Group, a select team of specialists who are creating a New Development Paradigm based on well-being, as part of the UN’s Sustainable Development Goals (SDGs).

Dr. Adler has published numerous articles and book chapters on the assessment of well-being (Kern et al., 2015a, 2015b) and on the development, implementation and evaluation of positive education programs in different countries (Adler, 2016a, 2016b; Adler, & Seligman, 2016) in English and in Spanish. Most importantly, he has had a positive impact on the well-being and education of hundreds of thousands of young people.

When I asked Dr. Adler whether I should include him in this chapter about positive psychology in Mexico and Central America (since he currently lives in the U.S) he said that being Mexican is a core part of his identity, that he is based in the US, works all over the world, and he feels that he does represent Mexico, just like Olympic athletes and World Cup soccer players can always represent the country where they were born.

Luz de Lourdes Eguiluz

What characterizes happy couples? How do members of positive families interact with each other? How can positive psychology be applied in family therapy? Can positive psychology be useful in suicide prevention?

Dr. Luz de Lourdes Eguiluz Romo has studied these issues in her work as a researcher and clinician. Dr. Eguiluz has been a professor at the National University (UNAM) in Mexico for over 30 years, where she has been the director of the Psychology Department at the FES Iztacala campus. At the university, Dr. Eguiluz has led the research project on Families and Health and founded and directed the Family Development and Education Clinic.

Dr. Eguiluz obtained her bachelor's degree (*licenciatura*) in Psychology from the UNAM's Facultad de Estudios Superiores Iztacala. She went on to obtain a Master's degree in Family Therapy from the Universidad de las Américas, and a doctorate in Psychological Research from the Universidad Iberoamericana. She also specialized in Family Therapy in the US and in Spain and has worked on the integration of positive psychology in family therapy. Dr. Eguiluz was awarded the Mexican Psychology Prize in 2007 by the National Federation of Psychology Schools and Faculties (FENAPSIME) for her merits in the teaching of psychology. She has also received awards in other countries, such as an honorary membership to the Peruvian College of Psychologists and a distinguished professorship by the Colombian Family Therapy Association.

Dr. Eguiluz has made significant contributions to positive psychology in Mexico through her research, teaching, as a clinician, and in her service to the profession. She was the first president of the Mexican Positive Psychology Society (SMPP). She has brought together her experience as a couple's and family therapist with positive psychology by studying happy, long term marriages and "positive families" (Eguiluz et al., 2008; Eguiluz Romo, 2002; Eguiluz et al., 2017; Plasencia Vilchis et al., 2016).

Dr. Eguiluz has also specialized in the study and prevention of suicide and she has recently begun to incorporate positive psychology in this work, including the assessment of subjective well-being in addition to other measures in the evaluation of suicidal risk among young people (Eguiluz & Ayala, 2014; Eguiluz et al., 2014).

In 2009, Dr. Eguiluz and her colleagues at FES Iztacala created a Diploma Program in Positive Psychology, which is being taught to date. She is a founding member of the Mexican Positive Psychology Society and was its first president from 2015–2017.

Dr. Eguiluz is a prolific writer who has published 58 research articles and 9 books on family systems, family therapy and suicide prevention, including: *El baile de la pareja (The Couple's Dance)* (2008) *Dinámica de la familia: un enfoque psicológico sistémico (Family Dynamics: a systemic psychology perspective)* (2007a), *Entendiendo a la Pareja, marcos teóricos para el trabajo terapéutico (Understanding the Couple, theoretical frameworks for therapy)* (2007b), *Dinámica de la Familia*

(Family Dynamics) (2006) and *Terapia Familiar: su uso hoy en día (Family Therapy: its use today)* (2004).

José García Vega

How can we measure quality of life? What would a good index of quality of life for Mexico look like? How do the values of Mexican people impact their happiness? What is the relationship between quality of life and happiness?

Dr. José García Vega is an economist who has specialised in the study of quality of life and subjective well-being in Mexico and has addressed these questions in his work. He got his undergraduate degree in accounting and his Master's in Business Administration from the Universidad Autónoma de Tamaulipas, and obtained his doctorate in Economics from Texas A&M University.

Dr. García Vega has been on the faculty of several universities in Mexico and abroad. His most recent appointment was with the Universidad de Monterrey, in Monterrey, Mexico, where he headed the department of Economics and directed the Center for Well-being Studies. In his career, Dr. García Vega has found that happiness still is not taken seriously in many academic circles and that there is a common misconception of happiness as a synonym of continuous positive emotion, which is unattainable (García Vega, 2009).

Among Dr. García Vega's findings about happiness in Mexico are that despite serious problems like corruption and violence, most Mexicans (like many Latin-Americans) have high levels of happiness and satisfaction with life. These levels of happiness and satisfaction in good part have to do with Mexicans' social relationships, particularly with the family (Rojas & García Vega, 2017).

Dr. García Vega believes that, in addition to the good family and interpersonal relationships we enjoy in Mexico, our high levels of satisfaction may have a downside, because they can be the result of a culture that tends towards hedonism, short term planning and conformity. He believes that, paradoxically, high levels of satisfaction might be an obstacle for advancement towards a greater quality of life, such as the one enjoyed by the Nordic countries (García Vega, 2016).

Dr. García Vega has been a member of the Board of Directors of the International Society of Quality of Life Studies and of the Community Indicators Consortium. He coordinated the development of the first Quality of Life Index for Mexico (García Vega, 2011) and has adapted and applied various well-being models in corporations and universities. He is currently a consultant and speaker on happiness, quality of life and well-being. He has published numerous articles and chapters in books about happiness and well-being.

Elías Góngora

What is the relationship between spirituality and well-being? How do we define a measure a “full life”? Can positive interventions enhance pro-social behavior? How do families in the Yucatan cope with difficulties in positive ways? How can positive psychology be applied in sports?

Throughout his long career, Dr. Elías Góngora Coronado has addressed these and many more questions related to well-being, with an emphasis on its cultural components. Dr. Góngora is a professor in the Psychology department at the Universidad Autónoma de Yucatán (Autonomous University of Yucatán), UADY, where he has been on the faculty for over 40 years.

Dr. Góngora obtained his bachelor’s and master’s degrees in Psychology from the Universidad Autónoma de Yucatán (UADY), and his doctorate in Psychology from the UNAM, Mexico’s National Autonomous University. He has been one of the pioneers in introducing positive psychology in Mexico. In 2008, he invited Dr. Mihaly Csikszentmihalyi to present in Yucatan, and since then, Dr. Góngora started to offer a positive psychology class at the UADY that has been taken by over 250 students. He also teaches a class on spirituality and well-being, and courses on Wisdom for Well-being and Strategies for a Happy Life. From 2010 through 2017 he led a group of students and faculty, called “UADY Positive Psychology in Action” to scientifically study and promote the good in people.

Dr. Góngora has done much for the diffusion of positive psychology in Mexico, especially in the Yucatan peninsula, in academic settings and for general audiences. Since 2017 he and his colleague Iris Vázquez have taught a graduate level positive psychology class and in that same year, he created the UADY Center of Happiness and Well-being, whose motto is “Science for a Full Life”. The members of the Center do research, teach and apply positive psychology. Since 2018 the Center has offered a diploma program in positive psychology.

Dr. Góngora has had a long-standing interest in the social and cultural contexts of psychological phenomena, and he takes an ethno-psychological approach to the study of personality. He has researched parenting styles in Yucatan, positive coping and happiness. His studies show that a positive coping style is characteristic of several different groups in Yucatán, a state in which there is also evidence that people tend to have a positive self-perception (Canché et al., 2017). His research on spirituality shows that people who rate high on this characteristic tend to be happier (Vásquez-Velázquez & Góngora-Coronado, 2012).

Dr. Góngora is also involved in sports psychology, which he integrates with positive psychology, as exemplified in his work with sports injuries using positive psychology, and self-efficacy among young athletes. His commitment to well-being extends beyond psychology to the well-being of the planet and he is involved in research projects about climate change and conservation.

Dr. Góngora is a member of Mexico’s National System of Researchers (SNI) and he has published tens of research articles, a book on families, parenting and personality from an ethno-psychological perspective, and numerous book chapters

and a book on skills for life: *Enfrentándome a la vida. Manejo de Problemas y Conflictos con el enfoque de habilidades para la vida (Coping with Life. Dealing with problems and conflicts with a life skills approach)* (Pinto Loría et al., 2012).

Norma Ivonne González Arratia

How resilient are Mexican children? What contributes to the development of resilience in youth and adults? What is the relationship between self-esteem and happiness?

Dr. Norma Ivonne González Arratia has studied resilience, self-esteem and well-being among children, teenagers and adults in Mexico. She is a professor in the department of Behavioral Sciences at the Universidad Autónoma del Estado de México, where she heads the Culture and Personality Faculty. Her research focuses on culture, personality and health and she has pioneered research on resilience in children and youth who live in vulnerable situations in Mexico. She has also studied resilience and well-being in people with acute and chronic diseases.

Dr. González Arratia has found that the children and teenagers she has studied in Mexico are resilient and that the variables that have the greatest effect on their resilience are self-esteem and the love and support of their families or other significant people in their lives (González Arratia et al., 2016). Her research also shows that mothers' self-esteem is highly correlated with their children's self-esteem (González-Arratia, 1996) and that low self-esteem in children is a predictor of poor academic performance (Plata et al., 2014). Her studies of children in different risk situations (from family violence to teen pregnancy and homelessness) reveal that hopefulness, feeling loved and accepted predict resilience in the face of family, school and social difficulties (González Arratia, 2016; González Arratia & Valdez, 2015).

Dr. González Arratia has made contributions to psychometry within positive psychology. She developed instruments to assess optimism in teenagers and validated the PANAS (Positive and Negative Affect) Scale and the Positive Mental Health Scale for Mexican children and teenagers (González Arratia, 2014; González Arratia & Medina, 2015, 2016).

Dr. González Arratia received her bachelor's and master's degrees in Psychology at the Universidad Autónoma del Estado de México, and her Ph.D. in Psychological Research at the Universidad Iberoamericana in Mexico City. She is a member of Mexico's National Researchers' System (SNI) and she has received numerous academic awards, among them a distinction for young researchers from the Mexican Social Psychology Society and the State Award in Science and Technology in the Social Sciences division, from the government of the State of Mexico. She has also been chosen as an eminent scientist from the State of Mexico by the State of México's Institute of Public Administration.

Dr. González Arratia has published tens of articles in peer reviewed journals and she has written five books on resilience, self-esteem, health and psychology and

qualitative research, among them: *Resiliencia y Personalidad. Cómo desarrollarse en tiempos de crisis (Resilience and Personality: how to grow in times of crisis)* (2016) and *La autoestima. Medición y estrategias de intervención a través de una experiencia en la reconstrucción del ser (Self-esteem. Assessment and intervention strategies through a self-reconstruction experience)* (2011)

Mónica González Ramírez

What is the relationship between stress and psychosomatic symptoms? Why do university professors and students experience burnout? Is having pets beneficial for their owners?

These are only a few of the questions that Dr. Mónica González has addressed in her broad range of research projects. Dr. González is a professor in the Psychology Department of the Universidad Autónoma de Nuevo León (UANL) in Monterrey, Mexico. She obtained her undergraduate degree in Psychology from the Universidad Autónoma de Nuevo León, as well as her Master's in Health Psychology. She went on to receive a PhD in Behavioral Science Methodology from the Universidad Autónoma y Complutense de Madrid and the Universidad Nacional de Educación a Distancia in Spain.

Dr. González has studied stress among men and women, single and married mothers, and university students and professors. One of her many findings is that single mothers experience more stress, less social support and lower self-esteem than mothers in two-parent families (Hernández & González Ramírez, 2011). She has looked at how people cope with stress and the relationship between stress, burnout and psychosomatic symptoms and found that there is a strong relationship between anxiety, depression and psychosomatic symptoms among college students (González Ramírez et al., 2009). Her studies of other health matters, such as adherence to treatment in HIV patients, how people live and cope with fibromyalgia, obesity among children and pediatric patients who have suffered from burns, have shown for example that self-applied cognitive-behavioral programs reduce symptoms for women with fibromyalgia (González Ramírez & Landero-Hernández, 2010), and that children and teens who suffer burns show high levels of resilience (Quezada Berumen et al., 2014a).

Dr. González is also interested in the relationships between people and their pets, particularly dogs, the benefits of dog ownership and the effectiveness of dog assisted therapy. Her findings show, for example, that people who see their dog as part of the family and devote some time a week to train it, experience less perceived stress than people who see their dog as a pet or a guardian of the house, and that the use of therapy dogs can support cognitive restructuring (González Ramírez & Hernández, 2011).

Dr. González has done important work in psychometrics, validating and adapting several instruments, such as the Spanish version of the Life Orientation Test (LOT) that assesses optimism and pessimism, the Brief COPE that measures coping

responses, the Body Connection Scale, which looks at body awareness, the Lexington Attachment to Pets Scale (LAPS-M), Perceived Stress Scales, and the Brief Anxiety Situations and Responses (SRA-B) test (Landeró Hernández & González Ramírez, 2009; Quezada Berumen et al., 2014b; González Ramírez et al., 2013; González Ramírez et al., 2014).

Dr. González is a member of Mexico's National Researchers' System (SNI) and she has won the Research Prize awarded by the UANL, for her development of a structural model to explain psychosomatic symptoms and stress from transactional theory.

María del Rocío Hernández Pozo

How do people define happiness in different cultures? What role does optimism play in academic performance? How do beliefs about gender relate to violence and discrimination against women?

Dr. María del Rocío Hernández Pozo has studied these issues throughout her prolific academic career. She holds a doctorate in Experimental Psychology from Mexico's National Autonomous University (UNAM), where she has been a professor since 1989. She currently works in the CRIM-UNAM program for Equity and Gender Studies.

Dr. Hernández Pozo is a level II member of Mexico's National System of Researchers (SNI) and a member of the Mexican Academy of Sciences. Her research career has been very productive and she has studied different topics, including stress among high school and college students and its impact on their school performance; health behaviors, addictions, and the psychological and health correlates of mindfulness. She has also done psychometric work and has validated instruments to assess automatic thoughts and distress, anger and emotional control, and mindful attention.

It is hard to choose a sample of her vast body of work, but as a couple of examples we will mention the study of people's definitions of happiness in different countries. Dr. Hernández Pozo and collaborators found that family and social relationships are central elements of the context in which people experience happiness, and that a sense of inner harmony is a feature that prevails when people describe their psychological experience of happiness (Delle Fave et al., 2016).

Dr. Hernández Pozo has also studied emotional balance, optimism and pessimism and has found that negative thoughts and pessimism are negatively correlated with academic performance among college students, while a balance between optimism and pessimism is positively correlated with academic achievement (González Beltran et al., 2016).

Dr. Hernández Pozo's current research projects cover computerized tracking of behaviors related to health, work, sports and school performance; positive psychology interventions for behavior change; attitudes around gender equity, and binaural stimulation to promote well-being.

Dr. Hernández Pozo has received important recognitions in her career, among them the National Prize for Scientific Research in 1992 and the Aida Weiss Prize in behavioral and sociological research on cancer. She has been the editor of two scientific psychology journals: the *Revista Mexicana de Análisis de la Conducta* (Mexican Journal of Behavioural Analysis), and the *Revista Latinoamericana de Medicina Conductual* (Latin American Journal of Behavioral Medicine).

Gerardo Leyva Parra

How can subjective well-being be measured reliably across nations? What are efficient ways to measure well-being at a country-wide scale? What is the subjective well-being of Mexicans like? What is the relationship between subjective well-being and various economic variables?

In his explorations of these matters, Dr. Gerardo Leyva Parra has been a world leader in the measurement of happiness and well-being in nations. He is the General Adjunct Director of Research at the INEGI, Mexico's National Institute of Statistics and Geography, an autonomous public agency that conducts the nation's population and economic censuses.

Dr. Leyva got his bachelor's degree in Economics at the Universidad Autónoma de Aguascalientes, his Master's in Economics from the ITAM (Instituto Tecnológico Autónomo de México) and his Ph.D. in Regional Economics from Cornell University. He also has a diploma in Positive Psychology from the Universidad Iberoamericana in Mexico City. He has been a member of the United Nation's "Grupo de Río", a group of experts in the measurement of poverty, as well as a participant in the "Technical Committee to Assess Poverty" in Mexico and one of the developers of the first official methodology to measure poverty in this country.

The INEGI in Mexico has been one of the first national statistics bureaus in the world to measure Subjective Well-being, and Dr. Leyva has spearheaded its efforts. Following the guidelines for the assessment of well-being developed by the OECD, to create an instrument that would generate data that could be compared with data from other countries, Dr. Leyva and his team created the BIARE survey (BIARE is an acronym for "Bienestar Autorreportado", Self -Reported Well-being in Spanish) which has been added to other national surveys since 2012 and it is administered every trimester. The current version of the BIARE asks about satisfaction with life in different domains of life, about Eudaimonia or meaning in life, and about affective ratio or emotional balance (INEGI, 2018). Respondents rate their satisfaction on a scale from 0 to 10 with personal relationships, occupation/activity, housing, health, accomplishments in life, perspectives for the future, standard of living, neighborhood, free time, personal accomplishments, expectations about the future, economic situation, work, housing, neighborhood, free time, city, country, and safety.

The most recent data (INEGI, 2018) shows that the average level of life satisfaction for Mexico's urban population is 8.2 (on a scale from 0 to 10). Mexicans are very satisfied with their personal relationships (with an average score of 8.6) and their

occupation (8.5) and they are much less satisfied with the public arenas of life, such as their country (with an average score of 6.1) and their safety as citizens (the lowest ranking domain, with a mean of 4.8).

In terms of Eudaimonia or having a sense that their life is meaningful, people are asked to state how much they agree or disagree, on a scale from 0 to 10, with 10 statements such as “What I do in life is worthwhile”, “I am a fortunate person”, “I have a purpose or mission in life”, and the like. The findings about this eudemonic aspect of subjective well-being show that there are high levels of meaning among the Mexican urban population, with a mean response of 8 and above for most items (INEGI, 2018).

The third aspect of subjective well-being that is assessed through the BIARE in Mexico is affective balance, which refers to the ratio of positive and negative emotions experienced during the 24 hours prior to responding to the survey. On average, the emotional balance of urban Mexicans is positive, with a mean score of 6.4 on a scale that goes from -10 to 10 (INEGI, 2018).

Many people find it puzzling that Mexicans have such a high level of subjective well-being, especially because it is not a rich nation and the country is suffering record levels of violence (*El País*, 2018). Dr. Leyva believes that there are several factors that can explain this: one is that averages do not reflect distributions. There are many people in Mexico who report high levels of life satisfaction (9 or 10 on the scale), but there are over 13 million who report very low scores. Leyva points out that 13 million is the equivalent of the population of some entire countries. Another explanation has to do with how people in Mexico experience various life domains. There is a very significant difference between how satisfied we are with the inner circles of our lives and the more public ones. People in Mexico are very satisfied with their families, their friends and close relationships, but dissatisfied with the country, its government and its levels of violence. Among the INEGI’s findings are that experiencing violence in any form, whether it be domestic abuse or being a victim of a crime, has a large negative impact on subjective well-being. But for people who have not been directly affected by violence, being in a violent environment does not impact their well-being. Leyva hypothesizes that it is as if “otherness” is not very important. Mexicans are affectionate, we are generally in a good mood and enjoy life, especially with our loved ones, but there may not be a very developed sense of community in a larger context (Leyva, 2018).

Dr. Leyva and his team are beginning to study large data sets and they are working with Dr. Johannes Eichstaedt from the Positive Psychology Center of the University of Pennsylvania to measure well-being in large populations through the analyses of public posts on social media.

To have valid and reliable data about subjective well-being is invaluable for social scientists and for policy makers, and this information is now available in Mexico, in good part thanks to Dr. Leyva’s work.

Joaquina Palomar

What makes people resilient? What are the best predictors of subjective well-being among people who live in poverty? How do family and social relationships affect the subjective well-being of people who live in poverty? Are there psychological variables that predict government aid recipients' upward social mobility?

Dr. Palomar addressed these kinds of questions in her research as a leader in the study of quality of life and subjective well-being in Mexico, and is one of the country's foremost experts on resilience. She worked extensively for over a decade with people who live in poverty, studying how family relationships and social networks impact their subjective wellbeing.

Dr. Palomar was a professor in the Psychology Department of the Universidad Iberoamericana in Mexico City, from 1996 until her untimely death in 2016. She obtained her bachelor's degree in psychology from the Instituto Tecnológico y de Estudios Superiores de Occidente (ITESO) in Guadalajara and her Master's in Clinical Psychology at the Universidad Nacional Autónoma de México (UNAM), where she also got her doctorate in Psychology.

One of Dr. Palomar's areas of specialty was the study of the psychological and social aspects of the lives of people who live in poverty. She studied the impact of one of Mexico's largest social welfare programs, called Oportunidades, and found, among other things, that even though economic well-being is correlated with subjective well-being, there was no sign of lack of well-being or of greater psychological distress among the very poor. Within the same income group (considered very poor), people who were more satisfied with their family relationships and recreational activities were less likely to "feel poor" and tended to have higher scores on subjective well-being. Her findings showed that the best predictors of subjective well-being are related to the personal strengths and competencies that allow people to cope with life in direct ways, for example rational problem solving and self-control. (Palomar Lever & Estrada, 2016a, 2016b).

In her studies of resilience among the very poor in Mexico, Palomar found that the best individual predictors of resilience were an internal locus of control, mastery and competence, optimism, looking for support, a direct coping style, emotional intelligence and an absence of depression. The aspects of family interactions that predicted resilience were warmth and support, and authoritarian and authoritative parenting styles. Social support from family and friends also predicted resilience (Palomar Lever et al., 2012). Her research on teenagers who live in poverty also found that social abilities were predictive of subjective well-being, that the quality of family relationships is central for the well-being of adolescents, and that living in dangerous and stressful environments (like they did) had a detrimental impact on their happiness and satisfaction with life (Palomar Lever & Estrada, in Gaxiola Romero & Palomar, 2016).

Dr. Palomar's research also found counterintuitive evidence that social support may be negatively correlated to upward social mobility among Mexico's very poor people, because there is a culture of solidarity that makes them feel pressured to

reciprocate favors and financial help, and this can limit their economic growth (Universidad Iberoamericana, 2016).

Dr. Palomar was a member of Mexico's National Researchers System (SNI) and was actively involved in various professional organizations, like the International Society for Quality of Life Studies, where she headed the research team on poverty and quality of life. She published tens of articles in peer reviewed journals and co-edited two books on quality of life and resilience: *El Bienestar Psicológico. Una mirada desde Latinoamérica (Psychological Wellbeing: a perspective from Latin America)* (Gaxiola Romero & Palomar, 2016) & *Estudios de Resiliencia en América Latina (Resilience Studies in Latin America)* (Palomar & Gaxiola, 2012).

Tania Romo

How can self-regulation be measured? What does it take to change eating habits? Do psycho-educational interventions for well-being work? What are some of the neuro-psycho-immunological factors involved in stress and well-being?

Dr. Tania Romo González de la Parra's studies well-being with a special emphasis on biological aspects of psychology and health. She is a professor at the Institute of Biological Research of the Universidad Veracruzana in Xalapa, Mexico. She received her bachelor's degree in Chemistry from the Universidad Veracruzana and her doctorate in Biomedical Sciences from the UNAM (Mexico's National Autonomous University). She has also had training in narrative therapy and in natural healing methods.

Dr. Romo's research career is interdisciplinary and spans a broad range of topics, from basic biological research, like studies of patterns in alleles of human immunoglobulin VH genes, parasitic infections of mammals and antigen-antibody reactions in women with breast cancer, to psychological studies of self-regulation, mind-body health, psychosocial stress, happiness, and well-being. She has also studied addictions and the effectiveness of drug abuse prevention programs.

Dr. Romo and her collaborators have developed and validated several psychometric instruments, such as the International Affective Images System (Romo González et al., 2018), and a Physical Activity Self-Regulation Scale (Campos Uscanga et al., 2017).

Dr. Romo designed and implemented a "Positive Education Intervention" called "Self-Knowledge and Care of the Soul", which incorporates traditional practices such as Chi-Kung, visualization, meditation and some narrative therapy exercises. The program increased levels of happiness and well-being for a group of undergraduate students the Universidad Veracruzana (Romo González et al., 2013). She has published many research papers and is the author of *Manual para el cuidado del alma (Manual for the Care of the Soul)*(2017).

Alejandro Tapia Vargas

What variables are good predictors of happiness? Is there a relationship between spirituality, religiosity and happiness? How do personal values influence well-being? How do people with chronic illnesses experience meaning and purpose in life?

Dr. Alejandro Tapia pursued these questions during his 15 years on the faculty of the Universidad de Monterrey, the Universidad del Valle de México and the Universidad Autónoma de Nuevo León. He has been a member of Mexico's National Researchers' System (SNI). He has specialized in the study of spirituality and religiosity and their relationship to well-being, and has published numerous journal articles and book chapters on the topic.

Dr. Tapia got his bachelor's degree in Psychology from the Universidad del Valle de México and his Master's in Clinical Psychology and Ph.D. in Psychology from Mexico's National Autonomous University (UNAM). He has developed scales to measure spirituality and well-being and has studied the relationship between religiosity, spirituality and happiness (Tapia, & Villegas, 2009; Tapia & Villegas, 2008). Among the findings of research done by Dr. Tapia and his colleagues with populations in the Northeast of Mexico, are that demographic variables are poor predictors of happiness, while satisfaction with personal goals and one's family account for more of the variance in happiness. People who report being happily married are significantly happier than those who are single, widowed, unhappily married and, especially, divorced (Garcia et al., 2007). In terms of values and religiosity, Tapia and collaborators (2007) found that people whose important values include being fair, respectful, honest and helpful with others are happier. The latter value, being helpful to others, explained the largest difference in happiness. Their findings also showed that people who attended religious services more than once a week tend to be happier than people who don't attend them or do so infrequently.

Dr. Tapia also studied well-being and purpose among patients who live with diabetes and cancer, and he found that the latter have a greater sense of purpose than the former. His research has also found that people who are primed with a mortality salience situation exhibit a greater internal locus of control (Willis et al., 2011).

Dr. Tapia is also interested in history and hermeneutics, and he has written a book about historiography in XVI century Mexico (called New Spain at the time), and edited another volume on historical moments in psychology (Tapia Vargas, 2010). Together with me (Margarita Tarragona) and Dr. Mónica González, he co-edited one of the first books in Spanish about positive psychology *Psicología Positiva* (Tapia et al., 2012), and he has published numerous research articles on religiosity, spirituality, mortality, meaning in life and well-being.

Dr. Tapia is currently devoted to his clinical practice, and has founded @ContributingWellness, a multidisciplinary community well-being initiative that works with schools and organizations to foster good nutrition, fun physical activity and emotional well-being.

Andromeda Valencia

What are some of the character strengths of children in Mexico? What positive emotions do Mexican children experience most frequently? Can the well-being of children with chronic and serious illnesses be improved through psychological interventions? Are positive interventions effective in preventing depression in children?

Dr. Andrómeda Valencia Ortíz addresses these questions in her work as professor and researcher at the Instituto de Ciencias de las Salud (Health Sciences Institute) of the Universidad Autónoma del Estado de Hidalgo, where she is part of a faculty group that specializes in emotional well-being.

Dr. Valencia has made important contributions to the psychology of well-being in Mexico, through her research, teaching and clinical work. She got her bachelor's degree in psychology and her doctorate in Health Psychology at the UNAM (National Autonomous University of Mexico), specializing in pediatric cancers. Dr. Valencia has taught in several health and clinical psychology university programs in Mexico and headed the National University's (UNAM) Psychological Services Clinic. Among Dr. Valencia's most important contributions are the standardization for Mexico of the SHIPLEY-2 test for cognitive ability, the FROSTIG (DTVP-3) developmental test of visual perception and the FFPI-C five factor personality inventory for children.

Dr. Valencia runs one of the most productive psychology research labs in Mexico. She and her team study chronic and degenerative disease in children, childhood obesity, diabetes, anxiety, depression and behavioral problems in children. Their research includes studies about character strengths in children, positive emotions in children and the development of positive psychology interventions to prevent depression among elementary school students. Among her findings are that children's virtues and character strengths correlate positively with their happiness levels and have a negative association with depressive symptoms (Rubio & Valencia, 2016).

Dr. Valencia integrates cognitive behavioral approaches and positive psychology in her work and she has developed The Optimism Game, an intervention for children and their families to give them tools to better cope with difficult and traumatic situations, particularly when they face serious illnesses. It includes activities for children and parents that foster development of an optimistic cognitive style, de-catastrophizing, problem solving, and relationship skills, such as assertive communication and negotiating abilities. Using the Optimism Game as an intervention has been shown to improve perceived quality of life, increase adherence to treatment and improve social skills in children with cancer (2006) The Optimism Game has been used with children who have cancer, diabetes, neuro-dermatitis, cleft palate, eating disorders, enuresis and encopresis, in addition to kids who have experienced bullying or the divorce or death their parents (2013).

The Optimism Game won an award from the Mexican Psycho-Oncology Society, and Dr. Valencia has also received the first prize from the Research Network on

Psychosocial Processes, Clinical Work and Health, given by the Mexican System of Research in Psychology.

Dr. Valencia has authored numerous scientific articles and book chapters on health psychology and has directed many undergraduate and doctoral dissertations, especially in neuroscience. She is a researcher and a clinician and is the academic director of Servicios Psicológicos Integrales de México (SEPIMEX), a private psychological services center. She has been very active in several national psychology associations, and she has headed the continuing education committee of the Sociedad Mexicana de Psicología (Mexican Psychology Society). She is a reviewer for the *Revista Latinoamericana de Medicina Conductual (Latin American Journal of Behavioural Medicine)*.

Applied Positive Psychology in Mexico

As the previous section shows, there is a solid group of researchers, mostly psychologists and economists, that study happiness and well-being in several universities and other organizations in Mexico. Several of them have been involved in international research collaborations for many years, and some have been members of special commissions that have designed international guidelines for the measurement and study of well-being. In their labs, these investigators are mentoring a new generation of positive psychology researchers and the number of doctoral dissertations about well-being and human flourishing are rapidly growing.

The Mexican Positive Psychology Association (SMPP) was created in 2014 to bring together academics and practitioners. It hosts biennial international conferences on research and applications of positive psychology.

Positive Psychology Training Programs

As encouraging as the development of positive psychology research in Mexico has been, the growth in the application of positive psychology has been even greater. Several universities and private institutes offer diploma and certificate programs in positive psychology that focus on its application in different professional domains. I have been fortunate to be involved in the creation of some of these, and to have among the people who introduced positive psychology in Mexico.

I believe that my colleagues from Grupo Campos Elíseos, Elena Fernández, Sylvia London, Irma Rodríguez and I, were among the first to introduce the concept of positive psychology when we invited Dr. Mihaly Csikszentmihalyi to do a workshop in Mexico City in 2003. A few years later we hosted Dr. George Vaillant and Dr. James Pawelski and we started to include positive psychology in our training programs for therapists.

In 2008, the Universidad Iberoamericana in Mexico City opened the first university-based positive psychology in Spanish in the world, the “Diplomado” in Positive Psychology. It was a privilege for me to direct it. It was offered for 5 years and 110 people graduated from it.

Shortly after that, Dr. Luz de Lourdes Eguiluz started another diploma program at the National University (UNAM) FES Iztacala campus. 160 people have graduated from it to date. Yet another university in Mexico City offers a diploma program: the Universidad de las Américas, currently with 30 graduates. And this year, the Universidad Autónoma de Yucatán has started a diploma in Positive Psychology, led by Dr. Elías Góngora, with 54 participants. In other cities, the Jesuit University of Guadalajara, ITESO, has recently started to offer a diploma in Applied Positive Psychology, as does another Jesuit institution, the Ibero Monterrey University, in Monterrey.

In addition to universities, there are also private institutes that offer training and certification in positive psychology. I am on the faculty of the Certificate in Positive Psychology for Latin America (CIPPLA), offered jointly by the Wholebeing Institute from the USA and the Instituto de Bienestar Integral, directed by Arlen Solodkin. The program was originally designed by Dr. Tal Ben Shahar, and we have translated it to Spanish. We have 150 graduates since our opening in 2016. ALADEH (Latin American Association of Human Development) also offers a diploma program in Positive Psychology.

If we add the graduates of these different programs, we have over 500 professionals who have specialized in positive psychology and are applying the science of well-being to their work in education, health, management, human resources, coaching, public policy. . . each of them touching the lives of many people.

There are also some undergraduate classes on positive psychology, like the one offered by Dr. Elías Góngora at the Universidad Autónoma de Yucatán, and one taught by Nicole Fuentes at the Universidad de Monterrey, and one that I teach at the Instituto Tecnológico Autónomo de México.

One university deserves a special mention because of the role it is playing in the diffusion and development of positive psychology in Mexico and the magnitude of its endeavor: Universidad Tecmilenio. Under the leadership of its president, Dr. Héctor Escamilla, Tecmilenio created the Instituto de Ciencias de la Felicidad (Institute for Happiness Sciences) in 2013 with the mission to promote well-being. Here I was fortunate once again, because I had the opportunity to be the institute’s first director and to be involved in the design of its programs with Dr. María Elena Morín, Dr. Luis Gutiérrez Alladro and their teams. Dr. Enrique Tamés directed the institute after me, and Dr. Rosalinda Ballesteros is its current director. One of Universidad Tecmilenio’s goal is to have as many faculty members and staff as possible be certified in positive psychology. So far, 2500 employees and teachers from Tecmilenio and Tecnológico de Monterrey have gone through the certification. The program is also offered to people outside the university, and 500 have graduated (Morín, 2018).

Tecmilenio also offers a Master’s in Positive Leadership and 48 people have obtained their degree. Perhaps the most impressive numbers are those involving

undergraduates: all students at Tecmilenio must take an introductory positive psychology class. So far, 26,000 students have taken it (Ballesteros, 2018)!

Positive Psychology in Central America

As I mentioned in the introduction, there is very little positive psychology research being done in Central America. But this section features an outstanding exception: Dr. Mariano Rojas from Costa Rica, who has been a leader in the study of happiness and well-being in Latin America and who, in his own life and through his research, is linking the two geographical areas covered in this chapter.

Mariano Rojas

Dr. Mariano Rojas is an economist and a professor of Economics at Facultad Latinoamericana de Ciencias Sociales (FLACSO), in México City and at the Universidad Popular Autónoma del Estado de Puebla in Puebla, Mexico. He specializes in studying happiness, quality of life, subjective well-being, social progress, poverty and economic development. Dr. Rojas has been a guest researcher at the Erasmus University Rotterdam (The Netherlands) and at the Universidad de Granada (Spain); and has been on the faculty of University of International Business and Economics (Beijing, China) and at the Universidad de las Américas, Puebla, Mexico.

Born and raised in Costa Rica, Dr. Rojas obtained his undergraduate degree in economics from the Universidad de Costa Rica and went on to obtain a master's and PhD from Ohio State University in the USA. He is a member of Mexico's National System of Researchers (SNI) and he is the president of the International Society for Quality of Life Studies. He led a project called *The Measuring the Progress of Societies: A Perspective from Mexico* (Rojas, 2009b) whose goal is to enrich the global conversation about progress and the way we understand well-being through the contributions of a Latin American perspective.

Dr. Rojas is a prolific researcher and author. He has published over one hundred book chapters and papers in journals such as *World Development*, *Development Policy Review*, *Oxford Development Studies*, *Journal of Economic Psychology*, *Journal of Socio-Economics*, *Journal of Happiness Studies*, *Social Indicators Research*, *Applied Research in Quality of Life*, *El Trimestre Económico*, *Latin American Research Review*, y *Pan American Journal of Public Health*. He has also edited several books, including *Measurement, Research and Inclusion in Public Policy of Subjective Well-being: Latin America* (2012) and *Handbook of Happiness Research in Latin America* (2016). He is the author of *The Measurement of Progress and Well-Being; Proposals from Latin America* (2012) and *El Estudio Científico de la Felicidad (The Scientific Study of Happiness)* (2014).

Dr. Rojas has made many important contributions to the measurement and conceptualization of well-being, integrating an economic perspective with psychological knowledge about subjective well-being. He has played an important role in the assessment of poverty, well-being and social development in Latin America and internationally (Rojas, 2009a, 2017; Rojas & García Vega, 2017). He has stressed the importance of having a clear conceptual framework before rushing to measure well-being and having an over-proliferation of assessments (2009a).

Rojas values taking a “subjective well-being approach” in which the researcher does not make assumptions about people’s well-being, but rather is interested on how life is experienced by concrete persons (Rojas, 2009b). He describes three kinds of experiences that make up human well-being: hedonic or pleasurable experiences, affective experiences (emotions and moods), and the cognitive experience of setting goals and aspirations and achieving them. He points out that there is a fourth class of experiences, that has not been studied enough yet: the spiritual or mystical.

Rojas’ studies in Costa Rica and Mexico (2009b) reveal that the impact of income on well-being is large for people with low incomes, and it becomes less influential at higher income levels. His data also show that “there is more to life than standard of living” (2009b, p.71) for example, family satisfaction, enjoying one’s work and being able to have free time, and he reminds us that we are consumers, but we are more than consumers, and that just are there are economic goods, there are “relational goods”, because relationships are central to well-being. Rojas’ findings also highlight the importance of having free time, that education is important, not only because it allows us to get better jobs, but because it may allow us to have better relationships and to develop our skills for a more fulfilling life.

Rojas (2009b) has found that getting out of poverty is not enough to guarantee that people’s well-being will increase. His data also show the importance of the environment and habitability for well-being: having safety, access to green spaces, transparency, health services, are all factors that affect well-being, as are the personal and cultural values that shape people’s life satisfaction.

After finding repeatedly in his research that social indicator measures generally are not very good predictors of Latin-Americans’ well-being, Dr. Rojas has invited his colleagues to question, and hopefully expand, the theories that aspire to understand happiness. He proposes that.

the conception of wealth needs to be expanded; and that the notion of wealth of nations must incorporate factors such as the strength of warm and gratifying human relations (within the family as well as in the neighborhood, the working place, and the community), the availability of free time and the knowledge and skills to enjoy leisure activities, and holding non-materialistic values that place people’s attention on who they are and how they relate to others rather than on what they possess and can purchase (2016, p. 12).

The Future of Positive Psychology in Mexico and Central America

My final comments will be focused on Mexico, since the bulk of this chapter has been devoted to this country. I hope this chapter illustrates that there is a very dynamic community of positive psychology researchers and practitioners in Mexico. There is a growing interest in studying happiness and well-being among young scholars. There is also an increasing demand for specialists on well-being in schools, corporations and other organizations and, fortunately, there are good quality programs to train these practitioners. Government agencies are also showing a serious interest in well-being and how to promote it at a social level.

Some institutions, like Universidad Tecmilenio, have been able to offer the foundations of positive psychology to such a large number of people that it is almost like a social experiment in which we may be able to see the impact that a critical mass of people informed about the science of well-being might will have on a community.

I think that the positive psychology community still faces some challenges in Mexico, like some common misconceptions that are held both within academic circles and among the public. For example, that positive psychology is the same as “positive thinking” self-help, that it is about being happy all the time or that it is a topic of interest just for rich societies, not relevant for a developing country or a Latin culture. I believe this can be addressed by educating people about the scientific basis of positive psychology and by maintaining the rigor and complexity of the science of wellbeing in the growing number of applied training programs.

I believe that the next phase in the development of positive psychology in Mexico, and probably in all Latin America, will involve making the science of well-being our own, doing more research within our local cultures, studying positive psychology interventions in these contexts, adapting them if necessary, and generating new knowledge and new applications to contribute to human flourishing in our countries and in the world.

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