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تحية طيبة وبعد ،،،

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TABLE OF CONTENTS

Using Machine Learning in Predicting Social and Religious Tolerance

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Abstract: This study aims at highlighting the relationship between a person's value system (or core values) and his(her) tendency to tolerate others who are "different" in race, nationality and/or religion. To achieve its goal, the study uses a *Computational Approach* to analyze and model data from eastern and western values surveys, extract core values from this data using Factor Analysis, calculate a Tolerance Index, and finally predict a person's tolerance level from his (her) set of core values using Machine Learning (Artificial Neural Networks). The main distinctiveness of this research lies in applying machine learning to detect the main cultural values that could be considered as the main determinants of a person's tolerance towards socially and religiously different others. The results show that the most important core values in determining social and religious tolerance are *Humanism*, *Conservatism*, and *Wisdom*, resp. These results could be validated since they well match the theoretical background in the field of Toleration.

Keywords: Tolerance, Religious Tolerance, Machine Learning, Artificial Intelligence, Culture, Value System.

1. Introduction

Whether a virtue or an attitude, tolerance is a normative concept that relates to the cultural norms in a society (Forst, 2013). It includes acceptance of and respect for people with different cultural, religious, racial and political backgrounds accompanied by allowing them to maintain and express their values, beliefs and culture (Moore & Walker, 2011).

Tolerance occurs only when there is diversity because it is only when confronting diversity that our acceptance of others is truly tested (Witenberg, 2002). According to the source of diversity, tolerance is viewed as religious, political, racial, social, cultural, etc. Moreover, tolerance is related to and highly dependent on the value system and cultural norms in each society.

Values are general orientations toward basic aspects of life. They constitute abstract principles that guide behavior (Kluckhohn, 1951). Lying at the core of any culture (Hofstede, 2003), values are implicit and remain invisible till they become evident from observed behavior. Hence, culture manifests itself in explicit elements, but at its core lies *a value system* that characterizes this culture. Individuals carrying a specific culture usually tend to classify any phenomena into good or bad and right or wrong in a particular way that reflects their cultural orientation. Values are also defined as "an organized set of preferential standards that are used in making selections of objections and actions, resolving conflicts, invoking social sanctions, and coping with needs or

claims for social and psychological defenses of choice made or proposed" (Rokeach, 1979, p. 20).

"A ***Value System***, then, gives stability to a culture. It justifies its bearers' actions or thoughts and re-assures them that they are behaving as their society expects. Behavior significantly deviating from the norms established by value system enacted in the society will be met by threats and punishments. On the other hand, behavior conforming to the norms will be rewarded in a variety of ways. Analytically, a value system plays an important role in preserving a society" (Tawadros A. , 2012, p. 41).

This study focuses on the main ***cultural stimuli*** of tolerance. Hence, the main ***research questions*** are as follows**:**

- Can machine learning be used to predict tolerance level of survey respondents based on their responses to other value-survey items?
- What are the ***core values*** underlying a specific culture that have the most significant effect on a person's tendency to tolerate other people who are different in religion, nationality and/or race?

Moreover, the research hypotheses are as follows:

- Hypothesis (I): Machine Learning techniques can be used to predict tolerance level of respondents based on their core values.
- Hypothesis (II): There are ties between some core values underlying a person's culture and his/her tendency to tolerate different others.

To answer these questions and test the research hypotheses, the researcher used the following ***research methods***:

- Conduct an empirical study on a sample of 360 persons, who respond to a designed questionnaire that merges Schwartz's Value Survey (as a western value survey), with Chinese Value Survey (as an eastern value survey) and some selected questions from the World Value Survey.
- Use a *Computational Approach* to analyze and model data, extract core values using Factor Analysis, and calculate a Tolerance Index.
- Use Machine Learning (Artificial Neural Networks) to predict a person's tolerance level from his (her) set of core values.

2. Literature Review

Values are central to the organization of people's social and personal lives, scientific research in the social sciences fields view them as influencing both attitudes and behaviors. This view was behind the motivation for many scholars in different fields to classify values and study their effect on the economic, social, or political behaviors of humans.

Researchers such as Rokeach (1973), Hofstede (1984) and Schwartz (2006) tend to measure and extract basic human values using surveys. Schwartz (2006) developed a 21-statements survey, and identified ten distinct value orientations (basic human values) from the responses to these statements, namely: 1. Self-Direction, 2. Stimulation, 3. Hedonism, 4. Achievement, 5. Power, 6. Security, 7. Conformity, 8. Tradition, 9. Benevolence, 10. Universalism.

On the Eastern side, the Chinese Value Survey (CVS), developed by Bond and his colleagues, complements survey instruments constructed by western researchers to tap concerns fundamental to the eastern worldview. Based on the claim that the instruments used in cross-cultural research are all western, and hence they may themselves be culture bound, therefore, the CVS was designed to be used with people living in geographical regions where Eastern life values are prominent (Hofstede & Bond, 1984).

To develop this "Eastern" values survey, Bond asked several Chinese social scientists to prepare in Chinese a list of at least 10 fundamental and basic values for Chinese people. This procedure yielded 40 basic values that were translated to English afterwards. These 40 values are: 1. Filial piety (Obedience to parents, respect for parents, honoring ancestors, financial support of parents), 2. Industry (Working hard), 3. Tolerance of others, 4. Harmony with others, 5. Humbleness, 6. Loyalty to superiors, 7. Observation of rites and rituals, 8. Reciprocation of greetings and favors, gifts, 9. Kindness (Forgiveness, compassion), 10. Knowledge (Education), 11. Solidarity with others, 12. Moderation, following the middle way, 13. Self-cultivation, 14. Ordering relationships by status and observing this order, 15. Sense of righteousness, 16. Benevolent authority, 17. Non-competitiveness, 18. Personal steadiness and stability, 19. Resistance to corruption, 20. Patriotism, 21. Sincerity, 22. Keeping oneself disinterested and pure, 23. Thrift, 24. Persistence (Perseverance), 25. Patience, 26. Repayment of both the good and the evil that another person has caused you, 27. A sense of cultural superiority, 28. Adaptability, 29. Prudence (Carefulness), 30. Trustworthiness, 31. Having a sense of shame, 32. Courtesy, 33. Contentedness with one's position in life, 34. Being conservative, 35. Protecting your "face", 36. A close, intimate friend, 37. Chastity in women, 38. Having few desires, 39. Respect for tradition, 40. Wealth. The CVS was then developed by asking respondents to indicate on a 9-point scale the level of importance of each of these values was to them personally (Tawadros A. S., 2023).

Tolerance indicators are also calculated from surveys. Political tolerance, for instance, is measured through questions like: Should the most disliked group be allowed to hold public demonstrations? (Stouffer, 1955). However, Social tolerance is usually measured through the World Value Survey (WVS) data, since it includes several items about attitudes towards people who are different than oneself in one or more aspects. This includes the classical 'neighbor question', where respondents are asked to say whether they would object to have people who are different than themselves in some respects as neighbors (Widmalm & Oskarsson, 2008). In this research, a closer look has been made at attitudes towards immigrants and people with different religion and/or race.

Several studies highlighted the interlinkages between values and tolerance. For instance, Marina Marchenoka examined the problem of tolerance theoretically with respect to humanism in modern society and discovered interconnections between them (Marchenoka, 2017). Another study conducted a qualitative research using focus group discussions and in-depth interviews with 21 participants from Muslim families who have family members of different religions in Tana Toraja, Indonesia, to study the effect of applying moderate religious values and local wisdom on tolerance (Pajarianto, Pribadi, & Sari, 2022).

As a branch of Artificial Intelligence, machine learning proved to be effective in determining patterns in data, classification, and prediction. Inspired by human brain neural structure, Artificial Neural Networks (ANNs) become one of the most powerful tools in machine learning that can be used in a wide range of tasks. ANNs are biologically inspired computational models that are used to mimic the human brain in the learning process. Among the various types of ANNs, the Multi-Layer Perceptron (MLPs) are the most used for a wide variety of problems and research fields. MLPs are based on supervised learning process.

Machine learning techniques have also enabled innovative ways to conduct cross-cultural research to study attitudes of people from different cultures. Examples include – among others – studying the association between colors and emotions (Jonauskaite, et al., 2019); conducting machine learning analysis of dozens of languages at Princeton University, which reveals that the meaning of words is significantly shaped by culture, history and geography, this finding held true even for some concepts that would seem to be universal, such as emotions, landscape features and body parts (Thompson, Roberts, & Lupyan, 2020); detecting sexual orientation from faces by extracting facial features from more than 35,326 faces using neural networks (Wang & Kosinski, 2018); trained a deep-learning model to predict whether or not World Values Survey respondents perceived unethical behaviors as justifiable, on the basis of their responses to 708 other items. The model identified optimism about the future of humanity as one of the top predictors of unethicality (Sheetal, Feng, & Savani, 2020).

It could be concluded from this literature review that although there is a wide range of research that discussed the cultural stimuli to tolerance, most of them used a qualitative analysis and/or a theoretical approach. Moreover, although machine learning and AI techniques have been widely used in cross-cultural, psychological and behavioral research, it is scarce to find studies that used these techniques in predicting tolerance based on cultural traits or core values.

Hence, the significance and distinctiveness of this study lies in applying machine learning to predict religious and social tolerance from core values, i.e., to computationally and empirically test the interlinkages between core human values and tolerance.

3. Methodology

3.1. The Extraction of Focal (Core) Values

Focal Values are those core values about which numerous values do cluster. These core values are inferable from groupings of values, and they are used to justify and explain less-central values (Albert, 1956). The researcher designed a questionnaire of (101) items, as in Appendix (A), that mixes:

- Schwartz's value survey (21 statements),
- with CVS (40 values), and
- some selected items from the WVS (40 items).

The survey was translated into Arabic by the researcher and was conducted on a sample of 360 university students in Egypt. The sample included both genders (male and female) from different areas in Egypt with different educational fields.

To extract the principal core values governing respondents' culture, the researcher employed an exploratory Principal Components Factor Analysis for each of the following survey items:

- The 40 items (values) of CVS.
- The 21 statements of Schwartz Survey.

Based on the results of the two principal component analyses, we have two sets of core values extracted from the two sets of questions, which can be compared and analyzed.

3.2. Predicting Tolerance

To calculate a Toleration Index from selected questions from the WVS, the researcher employed the concept of applying grid/group cultural analysis to the WVS conducted by Chai, Liu and Kim (2009). They applied the grid/group analysis introduced by Mary Douglas (1982) on a selected set of items from the WVS and classified the grid/group properties for each individual question whether it is 'high' or 'low' (Chai, Liu, & Kim, 2009).

Employing the same concept to tolerance, the researcher classified 10 items from the WVS whether they indicate 'high' or 'low' in tolerance, as shown in Table (1).

The Toleration Index (TOL) is then calculated from the normalized values of these ten items' data as shown in the following equation:

$$\mathbf{TOL = V016 + V106 + V107 + (1 - V037) + (1 - V039) + (1 - V041) + V154 + (1 - V155) + (1 - V156) + (1 - V210)}$$

Eq (1)

The calculated Toleration Index takes a value that ranges from zero, which means no toleration at all, up to ten, which means complete toleration.

Finally, Artificial Neural Networks (ANNs) are used to test whether we can predict respondent's toleration level if we know their core values extracted from CVS and Schwartz items or not.

Items		Toleration	
		High	Low
1.	V016. Tolerance and respect for others	Yes (1)	No (0)
2.	V106. Trust: People of other religions	Yes (1)	No (0)
3.	V107. Trust: People of other nationality	Yes (1)	No (0)
4.	V037. People you would not like to have as neighbors [People of a different race]	No (0)	Yes (1)
5.	V039. People you would not like to have as neighbors [Immigrants]	No (0)	Yes (1)
6.	V041. People you would not like to have as neighbors [People of a different religion]	No (0)	Yes (1)
7.	V154. Only acceptable religion is mine	Strongly Disagree (1)	Strongly Agree (0)
8.	V155. All religions should be taught in public schools	Strongly Agree (0)	Strongly Disagree (1)
9.	V156. People from other religions are probably as moral as us	Strongly Agree (0)	Strongly Disagree (1)
10.	V210. Violence against other people	Unjustifiable (0)	Justifiable (1)

Table (1): Toleration Index Calculation Matrix

4. Results

4.1. The Extraction of Focal (Core) Values

4.1.1. Schwartz Values:

The data from the twenty-one items of Schwartz Survey are analyzed using principal component analysis which was rotated orthogonally using Varimax rotation. The results showed Six factors with eigenvector greater than one, accounting for 52.5 percent of the variance. A scree test was conducted to estimate the minimum number of distinct factors, as shown in Figure (1). Five factors were evident from the plot. A varimax rotation of five factors was performed, and all items had absolute loadings greater than 0.40. Table (2) shows the five extracted factors, together with the items that lie under each factor or component [Note: Items written in red with (-) sign indicates that these items have negative factor loading].

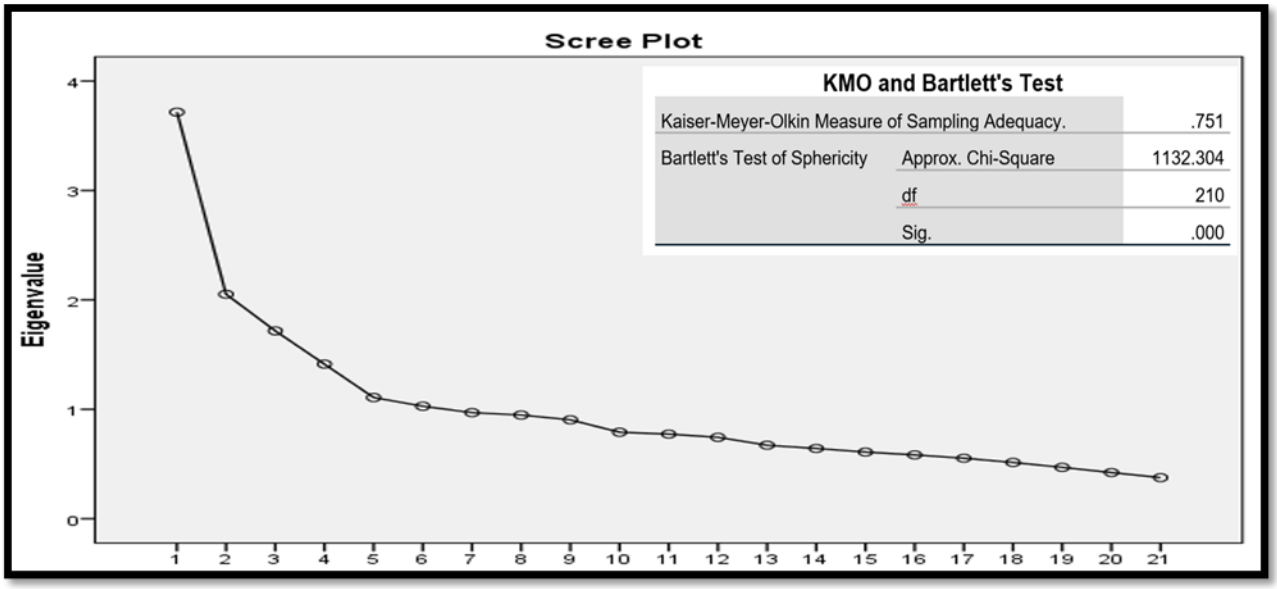

Figure (1): Scree Plot of Schwartz Survey Items

Therefore, the 21 statements of Schwartz Values Survey produced five distinct and statistically independent Core values as shown in Table (2).

F_SH_1: Altruism / Humanism	**F_SH_2: Individualism**
Benevolence, Universalism, Social Security	**Self-Direction, Stimulation**
G2 (-) It is important to him to be rich. He wants to have a lot of money and expensive things. **G3** He thinks it is important that every person in the world should be treated equally. He believes everyone should have equal opportunities in life. **G8** It is important to him to listen to people who are different from him. Even when he disagrees with them, he still wants to understand them. **G12** It's very important to him to help the people around him. He wants to care for their well-being. **G14** It is important to him that the government ensures his safety against all threats. He wants the state to be strong so it can defend its citizens. **G18** It is important to him to be loyal to his friends. He wants to devote himself to	**G1** Thinking up new ideas and being creative is important to him. He likes to do things in his own original way. **G6** He likes surprises and is always looking for new things to do. He thinks it is important to do lots of different things in life. **G11** It is important to him to make his own decisions about what he does. He likes to be free and not depend on others. **G15** He looks for adventures and likes to take risks. He wants to have an exciting life.

<table>
<tr><td>people close to him.

G19 He strongly believes that people should care for nature. Looking after the environment is important to him.</td><td></td></tr>
<tr><td>F_SH_3: Self-Development</td><td>F_SH_4: Conservatism</td></tr>
<tr><td>Achievement, Power</td><td>Conformity, Tradition</td></tr>
<tr><td>G2 It is important to him to be rich. He wants to have a lot of money and expensive things.

G4 It's important to him to show his abilities. He wants people to admire what he does.

G9 (-) It is important to him to be humble and modest. He tries not to draw attention to himself.

G13 Being very successful is important to him. He hopes people will recognize his achievements.</td><td>G7 He believes that people should do what they are told. He thinks people should follow rules at all times, even when no-one is watching.

G16 It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong.

G17 It is important to him to get respect from others. He wants people to do what he says.

G20 Tradition is important to him. He tries to follow the customs handed down by his religion or his family.</td></tr>
<tr><td colspan="2">F_SH_5: Self-Indulgence</td></tr>
<tr><td colspan="2">Hedonism, Personal Security</td></tr>
<tr><td colspan="2">G5 It is important to him to live in secure surroundings. He avoids anything that might endanger his safety.

G10 Having a good time is important to him. He likes to “spoil” himself.

G21 He seeks every chance he can to have fun. It is important to him to do things that give him pleasure.</td></tr>
</table>

Table (2): The Five Factors or Components of Schwartz Survey Items.

4.1.2. Chinese Values Survey (CVS):

The data from the forty basic values of the CVS were also analyzed using principal component analysis which was rotated orthogonally using Varimax rotation. The results showed Twelve factors with eigenvector greater than one, accounting for 66.1 percent of the variance. A scree test was conducted to estimate the minimum number of distinct factors, as shown in Figure (2). Four factors were clearly evident from the plot and the fifth seemed possible. A varimax rotation of five factors was performed, and almost all items had absolute loadings greater than 0.40. Table (3) shows the five extracted factors, together with the items that lie under each factor or component.

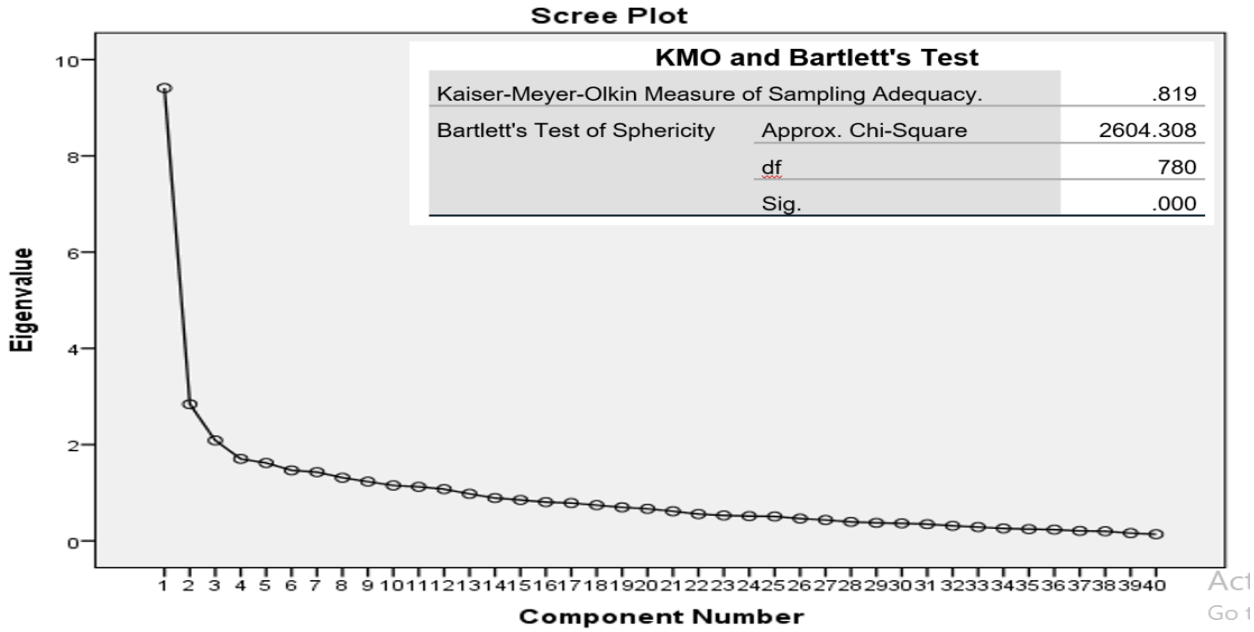

Figure (2): Scree Plot of Chinese Value Survey Items

F_CVS_1: Altruism/Humanism (Jen)	**F_CVS_2: Righteousness (Yi)**
1. Filial piety, 2. Industry (Working hard), 3. Tolerance of others, 4. Harmony with others, 5. Humbleness, 9. Kindness (Forgiveness, compassion), 11. Solidarity with others, 13. Self-cultivation, 21. Sincerity, 31. Having a sense of shame, 36. A close, intimate friend.	10. Knowledge (Education), 15. Sense of righteousness, 18. Personal steadiness and stability, 19. Resistance to corruption, 24. Persistence (Perseverance), 25. Patience, 27. A sense of cultural superiority, 28. Adaptability, 30. Trustworthiness, 33. Contentedness with one's position in life, 37. Chastity in women.
F_CVS_3: Wisdom	**F_CVS_4: Conservatism**
12. Moderation, following the middle way, 20. Patriotism, 22. Keeping oneself disinterested and pure, 23. Thrift, 29. Prudence.	7. Observation of rites and rituals, 8. Reciprocation of greetings and favors, gifts, 35. Protecting your "face", 39. Respect for tradition.
F_CVS_5: Social Order (Li)	
6. Loyalty to superiors, 14. Ordering relationships by status and observing this order, 16. Benevolent authority, 26. Repayment of both the good and the evil that another person has caused you, 32. Courtesy, 34. Being conservative, 38. Having few desires, 40. Wealth.	

Table (3): The Five Factors or Components of CVS Items.

4.2. Machine Learning

A) Cluster Analysis:

After calculating the pre-defined Toleration index (Eq. 1), a two-step cluster analysis is performed using IBM SPSS[1] to classify respondents or cases based on their tolerance level. Two clusters are detected; Cluster 1 – mid-tolerant respondents – with average toleration level equals to 6.2 comprises 49.7% of the sample, and Cluster 2 – highly-tolerant respondents – with average toleration level equals to 7.7 comprises 50.3% of the sample.

Based on Silhouette measure of cohesion and separation, the quality of the clusters proved to be good, as shown in Figure (3). Hence, each case is classified based on the toleration level to Cluster1 or Cluster2. Now, an ANN is used to predict the cluster to which a case belongs based on the values of the 10 core values extracted from CVS and Schwartz Values Survey.

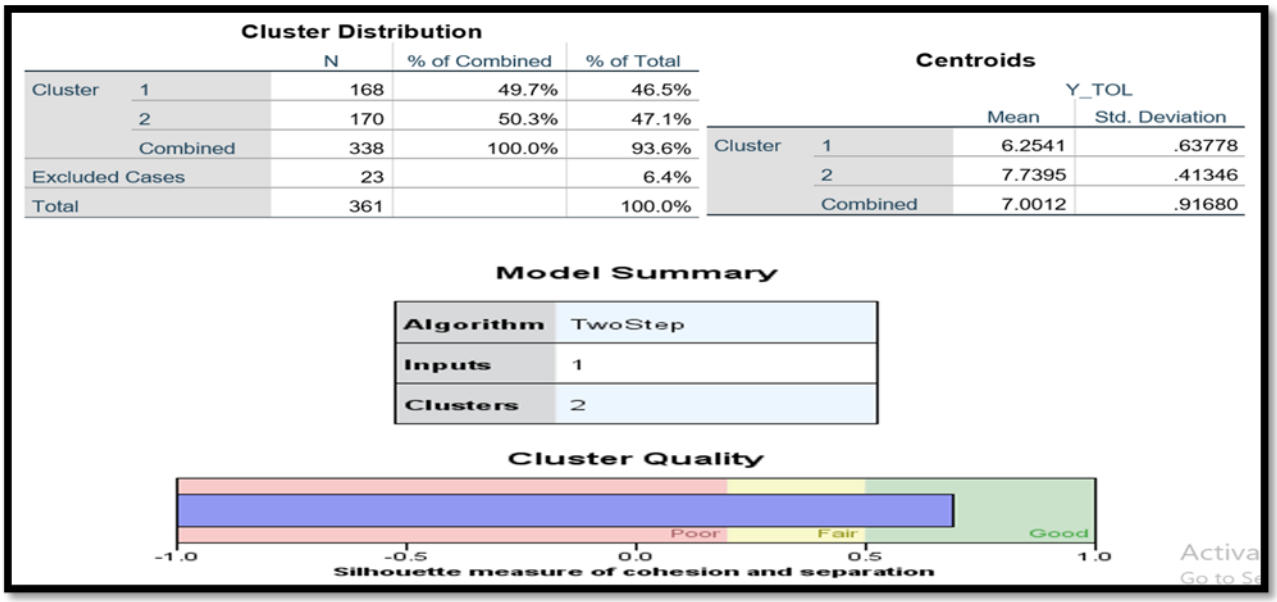

Figure (3): Toleration Index Cluster Analysis Output

B) Artificial Neural Network Model-1:

The data are divided into a training set (~70%) and a testing set (~30%), and then a Multi-Layer Perceptron (MLP) model is used using SPSS. The resulting ANN is constituted of an input layer, 1 hidden layer, and an output layer; the hidden layer contains 4 units excluding the bias unit. The Hyperbolic Tangent function is used as an activation function for the hidden layer, and a SoftMax function is used as an activation function for the output layer. Figure (4) shows the resulting ANN.

The results show that around 73% of the predictions of toleration clusters using this ANN model were correct. Figure (5) shows the Receiver Operating Characteristic (ROC) Curve, in which the Area Under the Curve (AUC) equals 0.685. Therefore, we can claim that the resulting ANN model can be used fairly well to predict toleration clusters from the 10 core values extracted from the two values' surveys. Finally, the

[1] IBM Corp. Released 2021. IBM SPSS Statistics for Macintosh, Version 28.0. Armonk, NY: IBM Corp.

most important core values in predicting toleration, as shown in Figure (6), are: F_CSV_4, F_SCH_4, F_CVS_1, F_SCH_2, F_CVS_3, resp.

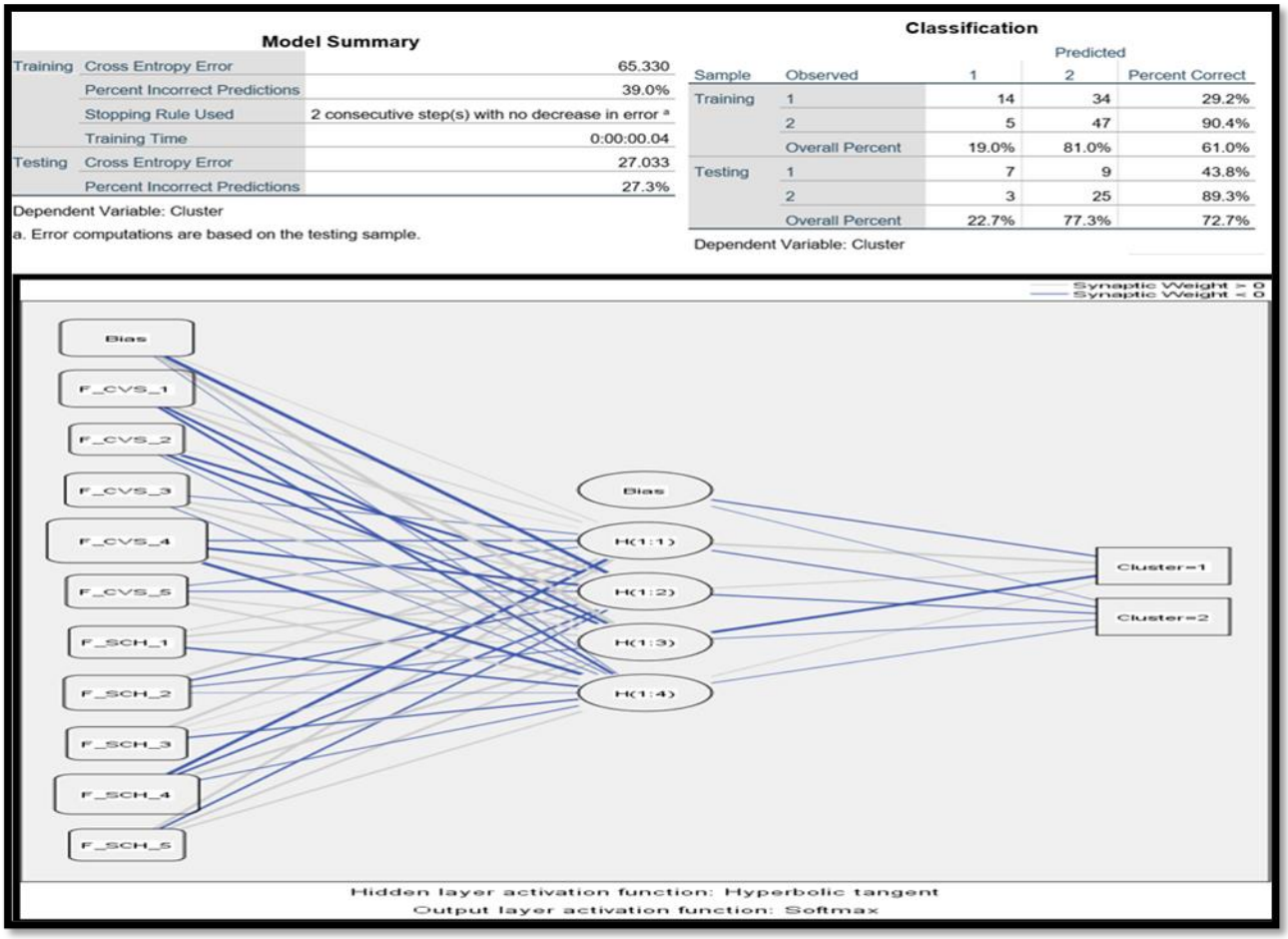

Figure (4): The ANN for Predicting Toleration from 10 core values.

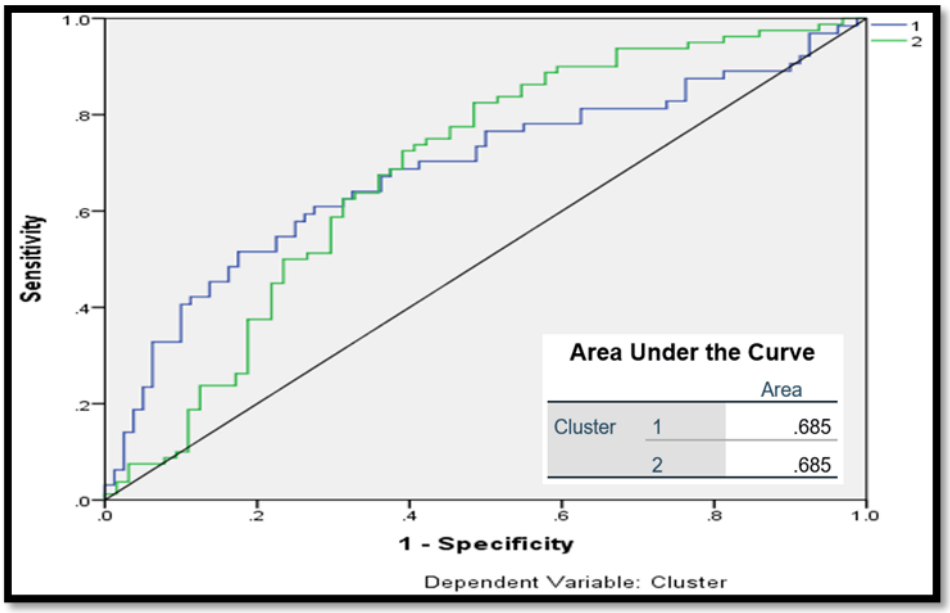

Figure (5): The ROC Curve of the ANN in Figure (4).

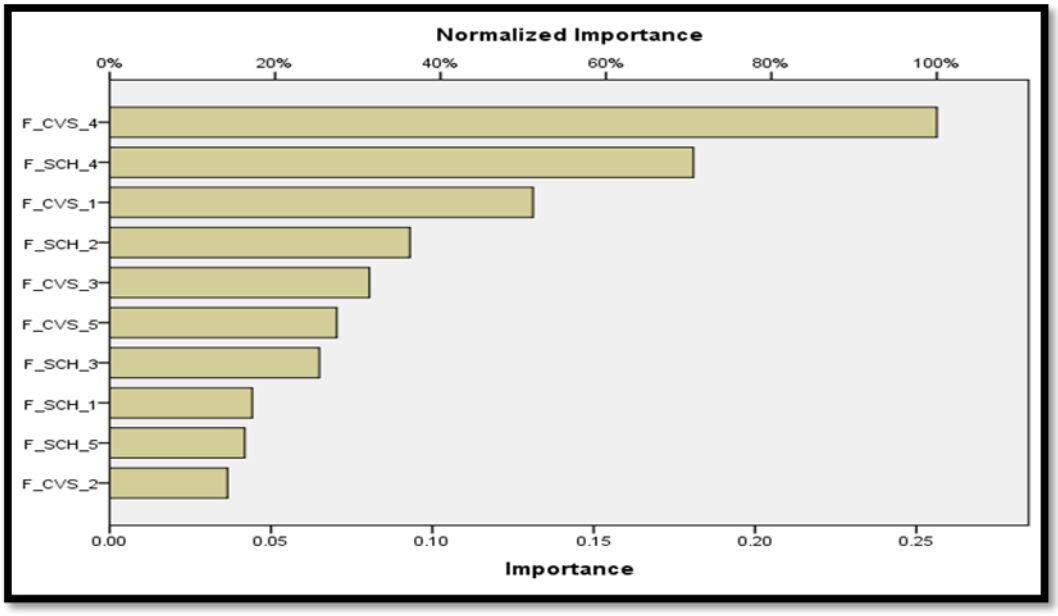

Figure (6): The most important Core Values in predicting Toleration.

C) <u>Artificial Neural Network Model-2 (Selected Core Values)</u>:

Based on Model-1 results, the researcher tried to fit another ANN model with only the pre-defined five core values. The resulting ANN is constituted of an input layer, 1 hidden layer, and an output layer; the hidden layer contains 4 units excluding the bias unit. The Hyperbolic Tangent function is used as an activation function for the hidden layer, and a SoftMax function is used as an activation function for the output layer. Figure (7) shows the resulting ANN.

The results show that, using the new ANN model, around 74.5% of the predictions of toleration clusters were correct. Figure (8) shows the ROC, in which the Area Under the Curve (AUC) equals 0.84.

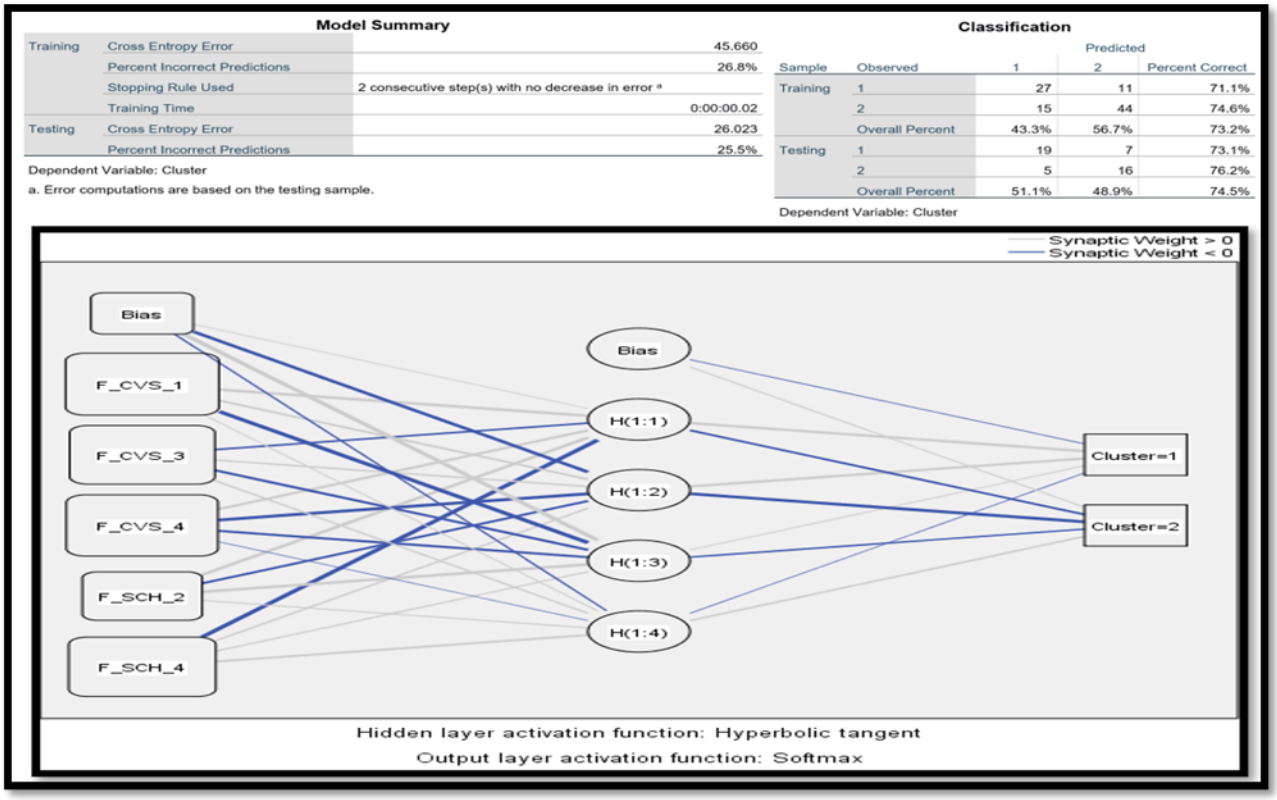

Figure (7): The ANN for Predicting Toleration from 5 core values.

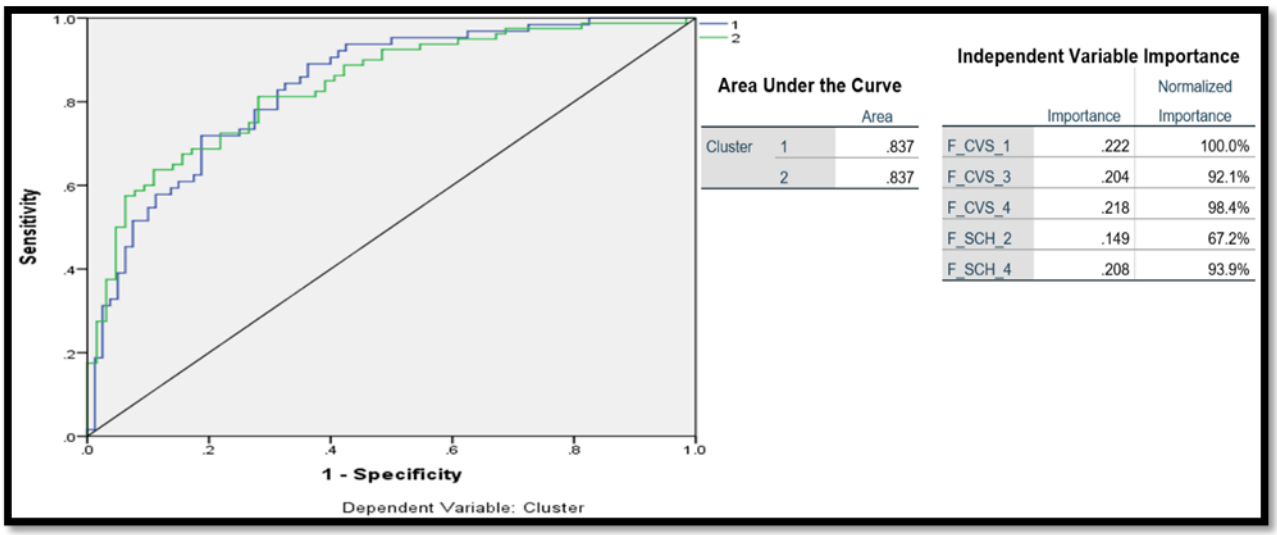

Figure (8): The ROC Curve of the ANN in Figure (7) and Variable Importance

Based on these results, we can claim that the resulting modified ANN model can be used very well to predict toleration clusters from the 5 core values extracted from the two values' surveys.

Hence, Hypothesis (I): Machine Learning techniques can be used to predict tolerance level of respondents based on their core values, is accepted.

Finally, the most significant core values in predicting toleration are F_CVS_1: Humanism (100%), F_CSV_4: Chinese Conservatism (98%), F_SCH_4: Schwartz

Conservatism (94%), F_CVS_3: Wisdom (Chih) (92%), and F_SCH_2: Individualism (67%), resp.

This result aligns with the findings of previous theoretical studies in literature, among whom: Widmalm and Oskarsson (2008), Marchenoka (2017), and Pajarianto, Pribadi and Sari (2022), which gives a proper validation for the ANN model developed in this study.

Hence, Hypothesis (II): There are ties between some core values underlying a person's culture and his/her tendency to tolerate different others, is accepted.

5. Conclusion

Although machine learning plays a significant role in providing insights, identifying patterns, and facilitating informed decision-making in the context of political tolerance, its usage has been limited to fields like sentiment speech/rhetoric analysis, social media monitoring, predictive analytics for electoral outcomes, early warning systems for conflict prevention, policy impact assessment.

The main distinctiveness of this research lies in applying machine learning to detect the main cultural values that could be considered as the main determinants of a person's tolerance towards socially and religiously different others.

Using machine learning techniques, the researcher reached an ANN Model that can train the computer to predict tolerance level of an individual from the set of core values he(she) believes in. The model showed that the most important core values in determining Tolerance are *Humanism (Jen)*, *Conservatism*, and *Wisdom (Chih)*, resp. Therefore, it could be claimed that these core values alone can be used to assess a person's tolerance level.

In Chinese philosophy, the main concept of Jen (wren) refers to benevolence, love, altruism, kindness, perfect virtue, goodness, human-heartedness, and humanity (Chong, 1999). Generally, it refers to the ethics that makes a person distinctively Human like filial piety, forgiveness, harmony with others, kindness, having a close friend, cultivation, etc. Moreover, Chih refers to moral wisdom; the source of this virtue is knowledge of right and wrong. It includes Moderation, following the middle way, Patriotism, Keeping oneself disinterested and pure, Thrift, and Prudence.

Conservatism refers to restraining one's behavior to comply with the norms and traditions governing each society. This includes basic values like preserving rituals, respect for tradition, the reciprocation of gifts, protecting one's face, the need for belonging to a society or community and being respected inside this local community.

The results of the computational analysis made in this study align well with the findings of most theoretical research in the literature of tolerance and its linkages with basic values as previously discussed in section 2. This leads to accepting research hypotheses regarding the effectiveness and validity of using Machine Learning techniques in studying the cultural stimuli for tolerance.

It could, then, be concluded that enforcing moral, humane and altruistic values in a society that preserves norms and traditions can guarantee high levels of tolerance in this society.

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Appendix

The Applied Questionnaire

Here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider to be especially important? Please choose up to five!

S		Quality	S		Quality
	V12.	Independence		V18.	Determination, perseverance
	V13.	Hard work		V19.	Religious faith
	V14.	Feeling of responsibility		V20.	Unselfishness **"Generosity"**
	V15.	Imagination		V21.	Obedience
	V16.	Tolerance and respect for other people		V22.	Self-expression
	V17.	Thrift, saving money and things			

Please select any group of people that you would not like to have as neighbors

S		Group	S		Group
	V36.	People with criminal record		V41.	People of a different religion
	V37.	People of a different race		V42.	Heavy drinkers
	V39.	Immigrants/foreign workers		V43.	Extremists
	V40.	Homosexuals		V44.	People who speak a different language

How much do you trust people from each of these groups? [*1 = Trust completely, 2 = Trust somewhat, 3 = Do not trust very much, 4 = Do not trust at all*].

V102	Your family	1	2	3	4
V103	Your neighborhood	1	2	3	4

V104	People you know personally	1	2	3	4
V105	People you meet for the first time	1	2	3	4
V106	People of another religion	1	2	3	4
V107	People of another nationality	1	2	3	4

How strongly you agree or disagree with each of the following statements? Please circle one answer in each line across [*1 = strongly agree, 2 = agree, 3 = undecided, 4 = disagree, 5 = strongly disagree*].

V153	Whenever science and religion conflict, *religion* is always right.	1	2	3	4	5
V154	The only acceptable religion is my religion.	1	2	3	4	5
V155	All religions should be taught in our public schools.	1	2	3	4	5
V156	People who belong to different religions are probably just as moral as those who belong to mine.	1	2	3	4	5

For each of the following actions, please detect whether you think it can always be justified, never be justified, or something in between [*1 = Never justifiable, and 10 = Always justifiable*].

V200.	Stealing property	1	2	3	4	5	6	7	8	9	10
V201.	Cheating on taxes if you have a chance	1	2	3	4	5	6	7	8	9	10
V202.	Someone accepting a bribe in the course of their duties	1	2	3	4	5	6	7	8	9	10
V203.	Homosexuality	1	2	3	4	5	6	7	8	9	10
V204.	Abortion	1	2	3	4	5	6	7	8	9	10
V205.	Divorce	1	2	3	4	5	6	7	8	9	10
V206.	Sex before marriage	1	2	3	4	5	6	7	8	9	10
V207.	Suicide	1	2	3	4	5	6	7	8	9	10
V208	A man who beats his wife	1	2	3	4	5	6	7	8	9	10
V209	Parents who beat their children	1	2	3	4	5	6	7	8	9	10
V210	Violence against other people	1	2	3	4	5	6	7	8	9	10

Please read each description and think about how much this person is or is not like you. Circle one answer in each line across: [*1 = very much like me, 2 = like me, 3 = somewhat like me, 4 = a little like me, 5 = not like me at all*].

G1 Thinking up new ideas and being creative is important to him. He likes to do things in his own original way.	1	2	3	4	5
G2 It is important to him to be rich. He wants to have a lot of money and expensive things.	1	2	3	4	5
G3 He thinks it is important that every person in the world should be treated equally. He believes everyone should have equal opportunities in life.	1	2	3	4	5
G4 It's important to him to show his abilities. He wants people to admire what he does.	1	2	3	4	5
G5 It is important to him to live in secure surroundings. He avoids anything that might endanger his safety.	1	2	3	4	5
G6 He likes surprises and is always looking for new things to do. He thinks it is important to do lots of different things in life.	1	2	3	4	5
G7 He believes that people should do what they are told. He thinks people should follow rules at all times, even when no-one is watching.	1	2	3	4	5
G8 It is important to him to listen to people who are different from him. Even when he disagrees with them, he still wants to understand them.	1	2	3	4	5
G9 It is important to him to be humble and modest. He tries not to draw attention to himself.	1	2	3	4	5
G10 Having a good time is important to him. He likes to “spoil” himself.	1	2	3	4	5
G11 It is important to him to make his own decisions about what he does. He likes to be free and not depend on others.	1	2	3	4	5
G12 It's very important to him to help the people around him. He wants to care for their well-being.	1	2	3	4	5
G13 Being very successful is important to him. He hopes people will recognise his achievements.	1	2	3	4	5
G14 It is important to him that the government ensures his safety against all threats. He wants the state to be strong so it can defend its citizens.	1	2	3	4	5
G15 He looks for adventures and likes to take risks. He wants to have an exciting life.	1	2	3	4	5
G16 It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong.	1	2	3	4	5

G17 It is important to him to get respect from others. He wants people to do what he says.	1	2	3	4	5
G18 It is important to him to be loyal to his friends. He wants to devote himself to people close to him.	1	2	3	4	5
G19 He strongly believes that people should care for nature. Looking after the environment is important to him.	1	2	3	4	5
G20 Tradition is important to him. He tries to follow the customs handed down by his religion or his family.	1	2	3	4	5
G21 He seeks every chance he can to have fun. It is important to him to do things that give him pleasure.	1	2	3	4	5

Imagine an Importance Scale that varies from 1 to a maximum of 10. (1) stands for "of no importance to me at all, and (10) stands for "of supreme importance to me." Give one number to each item below to express the importance of that item to you personally.

1. Filial piety (Obedience to parents, respect for parents, honoring ancestors, financial support of parents)	2. Industry (Working hard)	3. Tolerance of others	4. Harmony with others	5. Humbleness
6. Loyalty to superiors	7. Observation of rites and rituals	8. Reciprocation of greetings and favors, gifts	9. Kindness (Forgiveness, compassion)	10. Knowledge (Education)
11. Solidarity with others	12. Moderation, following the middle way	13. Self-cultivation	14. Ordering relationships by status and observing this order	15. Sense of righteousness
16. Benevolent authority	17. Non-competitiveness	18. Personal steadiness and stability	19. Resistance to corruption	20. Patriotism
21. Sincerity	22. Keeping oneself disinterested	23. Thrift	24. Persistence (Perseverance)	25. Patience

	and pure			
26. Repayment of both the good and the evil that another person has caused you	27. A sense of cultural superiority	28. Adaptability	29. Prudence (Carefulness)	30. Trustworthiness
31. Having a sense of shame	32. Courtesy	33. Contentedness with one's position in life	34. Being conservative	35. Protecting your "face"
36. A close, intimate friend	37. Chastity in women	38. Having few desires	39. Respect for tradition	40. Wealth