# Computationally Extracting the Core Values underlying Youth Culture in Egypt: An Empirical Study

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**Abstract:**
The main aim of this study is to computationally identify the core values underlying the culture of a sample of Egyptian University Students and how these values could be interlinked to form a complex value system. To fulfil its aim, the study uses an empirical *Computational Approach* to analyze and model data from different values surveys, extract core values from this data using Factor Analysis, and finally detect the interlinkages between the extracted core values using Social Network Analysis. The study proves that interlinkages exist between core values and shows that the most central core values are *Conservatism*, *Humanism*, *Social Order*, *Individualism* and *Wisdom*.
**Keywords:** Value System, Social Network Analysis, Culture.

## الاستخراج الحسابي للقيم الأساسية الكامنة وراء ثقافة الشباب في مصر:
## دراسة تجريبية

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**الملخص:**

إن الهدف الرئيسي من هذه الدراسة هو: أولاً: استخراج أو استكشاف القيم الأساسية الكامنة وراء ثقافة عينة من طلاب الجامعات المصرية بشكل حسابي، وثانياً: دراسة المنظومة القيمية المعقدة التي يمكن أن تنشأ عن ترابط هذه القيم بشكل شبكي. ولتحقيق هذه الأهداف، تم استخدام نهجًا حسابيًا تجريبيًا لتحليل ونمذجة البيانات المستخلصة من عدد من استطلاعات القيم المختلفة، واستخراج القيم الأساسية من هذه البيانات باستخدام اسلوب تحليل العوامل، وأخيراً اكتشاف الروابط بين القيم الأساسية المستخرجة باستخدام منهج تحليل الشبكات الاجتماعية. تثبت الدراسة وجود روابط متبادلة بين القيم الأساسية بالفعل مما يتيح للباحث استكشاف المنظومة القيمية الناشئة. كما توضح الدراسة أن القيم الأساسية الأكثر مركزية للعينة محل الدراسة هي قيم: المحافظة، والإنسانية، والنظام الاجتماعي، والفردية، والحكمة.

**الكلمات المفتاحية:** المنظومة القيمية، تحليل الشبكات الاجتماعية، الثقافة، الشباب.

# Computationally Extracting the Core Values underlying Youth Culture in Egypt: An Empirical Study

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## 1. Introduction

The term culture could be considered one of the most difficult words in English to be defined since it may have different meanings in different contexts. In addition, the term has been used for representing important concepts in several distinct intellectual disciplines and in several distinct systems of thought (Edgar & Sedgwick, 2006) (Smith, 2005).

Culture had been seen, from an abstract and to some extent descriptive view, as a "whole" that is constituted of a coherent set of values and ideas (Tawadros, 2012). One of the first definitions of culture was due to Tylor (1871), who defined culture as "*that complex whole which includes knowledge, belief, arts, morals, law, custom, and any other capabilities and habits acquired by man as a member of a society*" (Tylor, 1871, p. 1). Similarly, Wissler (1923) described culture through its different traits (e.g., speech, material traits, art, knowledge, religion, society, property, government, and war) that are then grouped into larger cultural complexes. However, he viewed the interconnection of cultural traits as the significant feature of culture rather than their collectivity (Wissler, 1923).

The term culture can be used in three different ways: It could be used to refer to the intellectual and spiritual development of an individual, group or society. It can also be used to capture a range of intellectual and artistic activities like art, theatre, and films. Finally, it can be used to designate the entire way of life, activities, customs, norms, and beliefs of a group of people or a society (Williams, 1976).

Moreover, Swidler (1986) views culture as "a toolkit of symbols, stories, rituals, and world views" (Swidler, 1986, p. 273). In this perspective, culture is viewed as "values, ideas beliefs, symbols, and arguments to be activated selectively according to the different

interests of actors and according to different situations" (Munch & Smelser, 1992, p. 10).

Hofstede (2003) as well analyzed culture as composed of multiple layers, where *Values* lie at the core of any culture. Values are invisible and remain invisible till they become evident from observed (practiced) behavior. Hence, culture manifests itself in visible elements, but at its core lie *a system of values* that characterizes this culture (Hofstede, Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations across Nations, 2003).

Values are general orientations toward basic aspects of life. They constitute abstract principles that guide behavior (Kluckhohn, 1951). Individuals within a specific group usually tend to classify any phenomena into good or bad and right or wrong in a particular way that reflects the cultural orientation of this group. Values then represent an enduring prescriptive or proscriptive belief that a specific end state of existence or specific mode of conduct is preferred to an opposite end state or mode of conduct for living one's life (Kahle, 1983).

Kluckhohn (1951) defined four main characteristics of values, as follows:

1. They designate desirable and undesirable modes, means and ends of action.
2. They may be explicit, given directly in value judgements, or implicit, inferred from verbal and non-verbal behaviors that involve approval, disapproval, blame, praise, reward, punishment, support and suppression.
3. They are persistent through time and manifest directionality.
4. They are differentiated but interdependent parts of a whole. Value are then a set of interrelated elements in a distinctive cultural system.

Rokeach (1979) provided an operational definition of values on an individual basis as follows: "A value is 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, Understanding human values, 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, 2012, p. 41).

Therefore, to understand and study any culture we must study the *Value System* underlying this culture. From this perspective, the main aim of this study is to study the core values underlying a culture and how these values could be interlinked to form a complex value system that can be used to understand attitudes, preferences and even behavior. In addition, the study aims at highlighting the relationship between the core values existing in a specific culture and the tendencies of people carrying this culture to tolerate others who are "different" than themselves in a way or another. Toleration here is considered as an example or a case study from which we can understand the interlinkages between the complex value system underlying a specific culture and the attitudes and tendencies of its carriers toward any other phenomena.

This empirical study uses a *Computational Approach* to analyze and model data from different values surveys, extract core values from this data using Factor Analysis, and finally detect the interlinkages between the extracted core values using Social Network Analysis.

## 2. Literature Review

Since 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. Three main assumptions underlie the classification system of value orientations, which are as follows (Klockhohn, 1960):

1. The universal aspect of value orientations question. There is a limited number of common human problems for which all people always must find some solutions.
2. The variability that exists in the solutions to these problems are not random and they are also limited within a range of possible solutions.
3. All variants of solutions are always present in all societies but in a varying degree.

Thus, every society has both a dominant profile of value orientations and other variant profiles. There is always a rand ordering of value orientations in both dominant and variant profiles.

Albert (1956) proposed five categories for the classification of cultural values as elements of a value system. These categories are:

1. Value Premises (Orientations). These are the most general conceptions of desirable and undesirable modes of action. They constitute the rationale of a value system, defining the good and bad, the right and wrong, representing the first principles of conduct.
2. Focal Values. These are core values about which numerous values do cluster. These core values are inferable from groupings of values and are used to justify and explain less-central values.

3. Directives. These are the prescriptions and prohibitions of a society. Laws, rules of conduct, taboos, etc. are examples of directives.

4. Character. These are the virtues and vices, the qualities of personality which are approved or disapproved, rewarded, or punished.

5. Valued and Disvalued Entities. These comprise the numerous and varied objects at the lowest level of generality in the value system. Being subsumed under focal values, directives, and characters, they may be classified in a variety of ways. These instrumentalities fit into the value system through their relation to more general value principles.
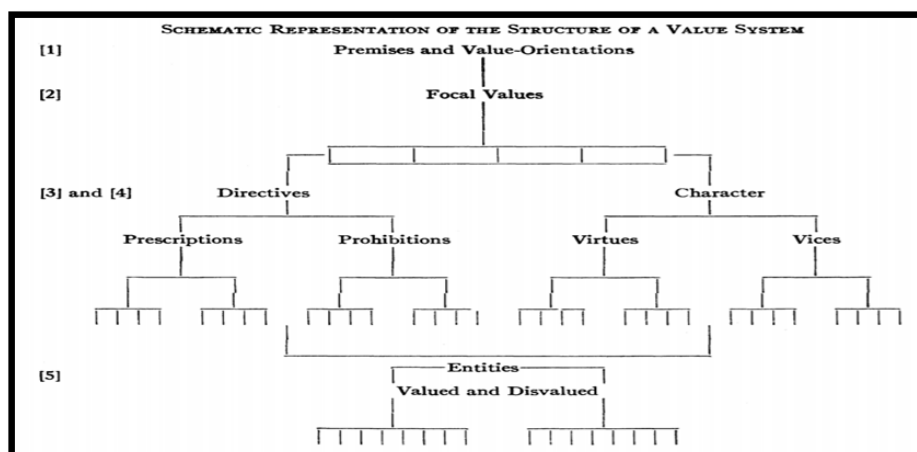


**Figure (1): The Structure of a Value-System (Albert, 1956, p. 225)**

## 2.1. Kahle – List of Values (LOV)

Kahle (1983) proposed the 'List of Values' (LOV) typology to draw a distinction between external and internal values. The LOV measures "those values that are central to people in living their lives, particularly the values of life's major roles (i.e., marriage, parenting, work, leisure, and daily consumptions)" (Bearden, Kelly, & Netemeyer, 2010, p. 151).

The LOV is composed of nine basic values that can be scored and rated numerically using a Likert scale of 9 or 10. These nine values are: Self-respect, Security, Warm relations with others, Sense of fulfillment,

Sense of accomplishment, Being well respected, Sense of belonging, Fun and enjoyment in life.

## 2.2. Rokeach Value Survey (RVS)

'Rokeach Value Survey' (RVS), that measures two sets of values, Terminal (T) values and Instrumental (I) values. The 18 Terminal values reflect desired end-states of existence like living an exciting life or achieving national security. The 18 Instrumental values, on the other hand, reflect the preferable modes of behavior like being ambitious or independent (Rokeach, 1968).

The RVS is constituted of two pages, on each page the 18 values of a specific dimensions appear in an alphabetic order, and the respondent of the survey is asked to rank order the 18 values on each page based on their importance to him/her (Rokeach, 1973).

## 2.3. Schwartz – Basic Human Values

Schwartz (2006) proposed a theory that highlights the basic values that humans in different cultures recognize. His study identified ten distinct value orientations and specifies the dynamics of conflict and congruence among them, as follows (Schwartz, Les valeurs de base de la personne: Théorie, mesures et applications (Basic human values: Theory, measurement, and applications), 2006):

1. Self-Direction. This refers to independent thought and action-choosing. It derives from the needs for control, mastery, autonomy and independence. Self-Direction include value items like creativity, freedom, choosing own goals, curiosity, independence, self-respect, intelligence, and privacy.
2. Stimulation. This refers to excitement, novelty, and challenge in life. It derives from the need for variety and stimulation. Stimulation include value items like a varied life, an exciting life, and daring.
3. Hedonism. This refers to pleasure or sensuous gratification for oneself. It derives from the need for happiness and the pleasure associated with satisfying this need. Hedonism include value items like pleasure, enjoying life, and self-indulgent.

4. <u>Achievement</u>. This refers to personal success through demonstrating competence according to social standards. It derives from the need for achievement and self-fulfillment. Competence is important for individuals to survive and for groups and institutions to reach their objectives. Achievement includes value items like ambition, success, capability, influence, intelligence, self-respect, and social recognition.

5. <u>Power</u>. This refers to social status and prestige, control or dominance over people, and attainment of resources. It derives from the need for dominance and control. Power includes value items like authority, wealth, social power, preserving one's public image, and social recognition.

6. <u>Security</u>. This refers to safety, harmony, and stability of society, of relationships, and of self. It derives from the basic for security (Maslow, 1965). Security includes value items like social order, family security, national security, clean (personal security), reciprocation of favors, health, moderation, sense of belonging.

7. <u>Conformity</u>. This refers to the restraining of actions that upset or harm others and violate social norms. It derives from the requirement that individuals inhibit inclinations that might disrupt and undermine smooth interaction and group functioning. Conformity include value items like obedience, self-discipline, politeness, honoring parents and elders, loyalty, and responsibility.

8. <u>Tradition</u>. This refers to respect, commitment, and acceptance of the customs and ideas that one's culture or religion provides. These customs symbolize the group's solidarity, express its unique worth, and contribute to its survival. They often take the form of religious rites, beliefs, and norms of behavior. Tradition include value items like respect for tradition, humbleness, devout, accepting one's portion in life, moderation, and spiritual life. While tradition and conformity share the goal of compliance to socially imposed expectations, they differ in the objects to which the person must comply to. In Conformity, a person complies to others with whom he/she is in frequent interaction, like parents, teachers, and bosses. However, in Tradition, a person complies to more abstract objects like religious and cultural customs and ideas.

9. Benevolence. This refers to preserving and enhancing the welfare of the social group in which a person lives. It derives from the basic requirement for smooth group functioning and from the need for affiliation. Benevolence include value items like helpfulness, honesty, forgiveness, responsibility, loyalty, true friendship, mature love, sense of belonging, meaning in life, and spirituality.

10. Universalism. This refers to understanding, appreciation, toleration, and protection for the welfare of all people and for nature. This contrasts with the in-group focus of benevolence values. It derives from the survival needs of individuals and groups. Universalism include value items like broadmindedness, social justice, equality, peace, world of beauty, unity with nature, wisdom, protecting the environment, inner harmony, and spirituality.

In addition to identifying these ten basic human values, Schwartz's theory also developed and explained the structure of dynamic relations among the values. Further on, Schwartz (2012) developed two major methods to measure these basic values, namely, the Schwartz Value Survey and the Portrait Value Questionnaire. Schwartz organized the ten basic values along two bipolar dimensions, as shown in Figure (2), namely: 'openness to change' vs. 'conservation' values, and 'self-enhancement' vs 'self-transcendence' values.

The first dimension highlights the conflict between values that emphasize independence of thought, action, and feelings and readiness for change (self-direction, stimulation) and values that emphasize order, self-restriction, preservation of the past, and resistance to change (security, conformity, tradition). On the other hand, the second dimension highlights the conflict between values that emphasize concern for the welfare and interests of others (universalism, benevolence) and values that emphasize pursuit of one's own interests and relative success and dominance over others (power, achievement). Hedonism, as Schwartz claims, shares elements of both openness to change and self-enhancement.
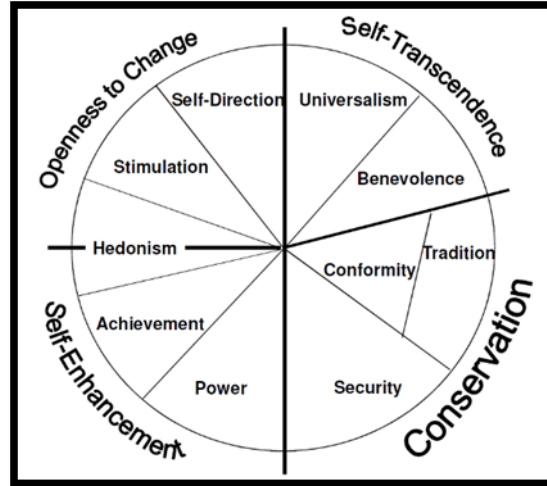
مجلة وادي النيل للدراسات والبحوث الإنسانية والاجتماعية والتربوية (مجلة علمية محكمة)

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**Figure (2): Schwartz's Model of the relation among 10 basic values
(Schwartz, 2012, p. 270)**

"In sum, the circular arrangement of the values represents a motivational continuum. The closer any two values in either direction around the circle, the more similar their underlying motivations; the more distant, the more antagonistic their motivations. The idea that values form a motivational continuum has a critical implication: Dividing the domain of value items into ten distinct values is an arbitrary convenience. It is reasonable to partition the value items into more or less fine-tuned distinct values according to the needs and objectives of one's analysis. Conceiving values as organized in a circular motivational structure has an important implication for the relations of values to other variables. It implies that the whole set of ten values relates to any other variable (behavior, attitude, age, etc.) in an integrated manner" (Schwartz, 2012, p. 10).

## 2.4. Hofstede –Value Survey Module (VSM)

Hofstede (1984) conducted an important study of work-related values and cultural dimensions that marked the beginning of dimensional comparative cross-cultural studies (Hofstede, 1984). He collected and analyzed data from IBM survey from forty

different countries. Based on this study, he identified four work-related cultural dimensions. He re-worked Culture's Consequences in 2001, including a great number of new works. This led to the fifth dimension, Long-term orientation (Hofstede, 2001). Later on, he added a sixth dimension, Indulgence versus Restraint (Minkov & Hofstede, 2011).

Hofstede's cultural dimensions can be summarized as follows:

1. Power Distance. This dimension reflects social inequality, including the relationship with authority. It refers to the extent to which the less powerful members of organizations in expect and accept unequal distribution of power.

2. Individualism vs. Collectivism. This dimension reflects the relationship between the individual and the group. Individualism refers to loosen social ties, and more care about oneself, while Collectivism refers to the opposite, where individuals are integrated into strong cohesive ingroups.

3. Masculinity vs. Femininity. This dimension reflects the social implications of having been born as a boy or a girl. Masculinity refers to societies in which social gender roles are clearly distinct (i.e., men are supposed to be assertive, tough, and focused on material success whereas women are supposed to be more modest, tender, and concerned with the quality of life. On the contrary, Femininity refers to societies in which social gender roles overlap i.e., both men and women are supposed to be modest, tender, and concerned with the quality of life.

4. Uncertainty Avoidance. This dimension reflects different ways of dealing with uncertainty, relating to the control of aggression and the expression of emotions. It refers to the extent to which the members of a specific culture feel threatened by uncertain or unknown situations and try to avoid such situations. This feeling is, among other things,

expressed through nervous stress and in a need for predictability: a need for written and unwritten rules.

5. <u>Long-Term vs. Short-Term Orientation (Confucian Dynamism)</u>. Affected by the Chinese value system, this dimension refers to the extent to which individuals of a given culture are long term oriented in their dynamics. Long term orientation exists in those cultures where individuals focus on long run results. However, short term orientation exists in those cultures where individuals focus only on short run results and are not interested in what will happen on the long run.

6. <u>Indulgence vs. Restraint</u>. This dimension refers to the extent to which a society allows or control gratification. Indulgence stands for a society which allows relatively free gratification of some desires and feelings, especially those that have to do with leisure, merrymaking with friends, spending, consumption and sex. Its opposite pole, Restraint, stands for a society which controls such gratification, and where people feel less able to enjoy their lives.

The latest version of Value Survey Module 2013 (VSM 2013) is a 30-item questionnaire for computing the six dimensions of Hofstede. The survey is divided into twenty-four content questions, with four questions for each dimension, which cover the six dimensions of Hofstede, and six questions for demographic data, like age, gender, etc.

Although Hofstede's dimensions of culture are widely spread and the most used dimensions in inter-cultural research, they cannot be applied to studying the basic dimensions of a given culture. However, Hofstede's dimensions are designed to be used only in inter-cultural research to compare different cultures along these six dimensions.

## 2.5. The Chinese Value Survey (CVS)

The Chinese Value Survey (CVS), developed by Bond with the help and assistance of his colleagues, aims at creating an instrument that tapped concerns fundamental to the eastern

worldview. Therefore, CVS was intended to complement survey instruments constructed by western research workers such as Rokeach (1973), Hofstede (1980) and Schwartz (1992), and hence it was designed to be used with people living in geographical regions where Eastern life values are pre-eminent.

This survey came into existence based on a claim that the instruments used in cross-cultural research are all western, and therefore they may themselves be culture bound. "Social Science is Western in origin, practitioners, and instrumentation" (Hofstede & Bond, 1984).

To develop this "Eastern" that can reflect indigenous themes and concerns of the Chinese culture, Bond asked a number of 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.

Bond and Hofstede (1984) conducted a factor analysis to the survey data and the results showed four main factors or categories, namely: Integration, Confucian work dynamism, Human-heartedness, and Moral discipline.

However, Matthews (2000) conducted the same survey later on in South Australia, and the results showed four factors or categories, namely: Integrity and Tolerance (Development of Self), Confucian Ethos (Relationships to Others), Loyalty to Ideals and Humanity (Social Responsibility), and Moderations and Moral Discipline (Worldly Wisdom) (Matthews, 2000).

## 2.6. The World Values Survey (WVS)

The World Values Survey (WVS) is a worldwide network of social scientists who aim at studying changes the happens in societies through studying changing values and their impact on social and political life. The WVS has been conducted in around 90 percent of the world's population. The WVS is claimed to provide a comprehensive measurement of all major areas of human concern, from religion to politics to economic and social life. Building on the European Values Survey (EVS), which was first conducted in 1981, the WVS has been conducted through seven waves, starting from 1981, till wave seven which is currently conducted from year 2017 till year 2020[1].

The WVS map all countries across two major dimensions that explain more than 70 percent of cross-cultural variation (Inglehart–Welzel Cultural Map). These two dimensions are:

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[1] For more information about the WVS and its databases, please refer to: http://www.worldvaluessurvey.org/wvs.jsp .

1. Traditional vs. Secular-rational Dimension. This reflects the contrast between societies in which both religion and traditional values (such as parent-child ties and traditional family values) are very important and those where they are not.
2. Survival vs. Self-expression Dimension. This reflects the contrast between societies in which there is an overwhelming emphasis on economic and physical security, and those in which there is an overwhelming emphasis on subjective well-being, self-expression and quality of life.

## 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). To quantitatively determine these core values, the researcher designed a questionnaire that includes selected questions from some of the main value surveys discussed in literature review.

The proposed questionnaire mixes Schwartz's value survey (21 statements), with CVS (40 values) and some selected questions from the WVS. Appendix (A) contains the full questionnaire. 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), different colleges, and different cities in Egypt.

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.

- The 17 aspects that respondent thinks are important in a job from the EVS.

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

## 3.2. Network Analysis of Core Values

Social Network Analysis (SNA) is then used to understand and visualize the interlinkages between the three different sets of core values extracted from the pre-discussed three questions. In addition, SNA produces some measures of centrality that can feed the research with some hints about which categories of values are the most central in determining the respondent's choices.

SNA is a distinct framework for studying the dynamics within complex systems because it is based on assuming the importance of relationships among interacting units. This perspective encompasses theories, models, and applications that are expressed in terms of relational concepts or processes.

SNA can also be considered as an empirical tool which can be used to visualize, identify, measure, and analyze the ties between different entities (Scott, 1991). In doing so, it uncovers the often-invisible patterns of interaction and enables the underlying structure of relationships to become visible (Cross, Borgatti, & Parker, 2002). There is extensive evidence in literature that the structure of networks, in terms of both the pattern of connections as well as the way in which entities or nodes are distributed across them, alters aggregate outcomes (Siegel, 2009).

The earliest roots of SNA can be traced to social psychology at the turn of the 20th century, but particularly what Jacob Moreno and Helen Jennings referred to as sociometry in the 1930s (Moreno & Jennings, 1938). However, contemporary social network analysis received a huge focus in the 1970s with the work of Harrison White and his students (Rice & Yoshioka-Maxwell, 2015).

Moreover, since the development of systems ideas (Katz & Kahn, 1966) (Thompson, 1967), organization theorists have focused on

the interaction between social objects (actors) in an organization in producing behavior. Network analysis is one method of conceptualizing systems that captures the intersection of both static and dynamic aspects by focusing on the linkages between social objects over time. In this study, and for the first time, SNA is used to capture the interlinkages and structure of relationships between core values instead of other entities like people, countries, organizations, etc.

## 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. Five factors were clearly evident from the plot. A varimax rotation of five factors was performed, and all items had absolute loadings greater than 0.40. Comparing these results with the 10 basic values defined by Schwartz, we can find some similarities and some distinctions.

It could be noticed that the majority of basic values (eight out of ten) lie in one category, except for Security and Power values. Security value lies in two different categories, namely: Altruism/Humanism and Self-Indulgence. The findings of our factor analysis show that G5 lies under Self-Indulgence, while G14 lies under Altruism/Humanism. Schwartz, in his questionnaire design, considered these two statements as homogeneous and represent security in general. However, if we have a deeper look at the phrasing of the two statements, we can differentiate between two different scales of security. G5 represents the personal security, while G14 represents the social or community security.

Therefore, these two statements appeared in two different categories.

The same logic applies to Power value. Schwartz measured Power value by two statements, namely: G2 and G17, however these two statements represent two different notions of Power. G2 reflects the power of money, while G17 reflects the power of respect inside the local community of the person, which is more related to conformity in the eastern culture context. In the East, a person feels that other people respect him (her) when he (she) complies with the norms respected in his (her) society. This gives an explanation why G2 appeared in the same category with Achievement value while G17 appeared in the same category with Conformity and Tradition values.

It could also be noticed that the groupings of the ten basic values defined by Schwartz under the core values (categories) differ from the groupings extracted from the data in this study. Based on the output of the factor analysis performed on the data in this study, the researcher renamed the five core values to be more appropriate in describing the content of each core value or category. Figure (4) shows the graph representing the five basic factors or core values extracted from our data of Schwartz Values Survey statements. Comparing Figures (2) and (3) we can see the similarities and distinctions between both studies.

Therefore, the 21 statements of Schwartz Values Survey produced five distinct and statistically independent <u>Core</u> values as follows:

a. **Altruism/Humanism.** This refers to preserving and enhancing the welfare and security of all people. It includes mutual understanding, toleration, preserving human ethics like helpfulness, honesty, forgiveness, responsibility, loyalty, friendship, broadmindedness, social justice, equality, peace, world of beauty, unity with nature, wisdom, protecting the environment, inner harmony, and spirituality.

b. **Individualism.** This refers to the independence of decision-making, creativity, novelty and excitement. This core value reflects the need for autonomy, freedom and stimulation.

c. **Conservatism.** This refers to the restraining of a person's behavior and actions to comply with the norms and traditions followed by his (her) society. This core value reflects the need for belonging to a society or community and being respected inside this local community.

d. **Self-Development.** This refers to personal success, ambition and materialistic power and domination. This core value reflects the need for self-fulfillment and dominance and control.

**Self-Indulgence.** This refers to gratification of oneself, reflecting the need for pleasure, enjoyment, happiness and safety.
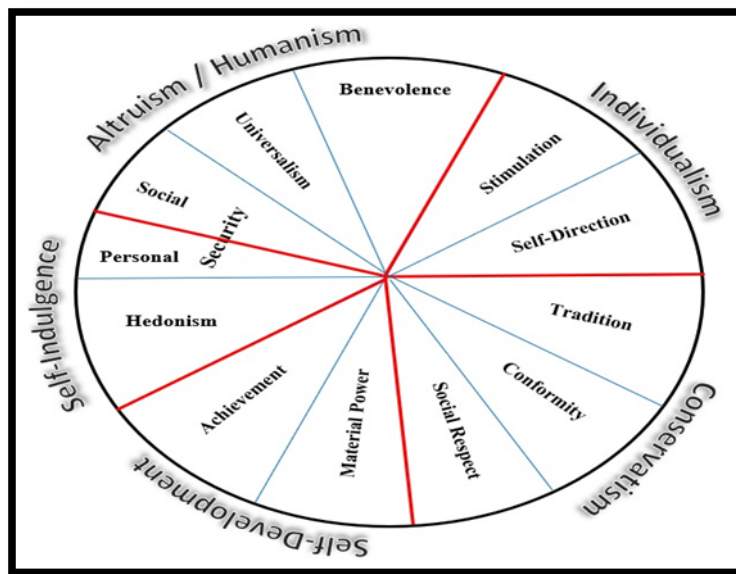


**Figure (3): The Five Core Values extracted from Schwartz Survey Data**

## 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. 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. Figure (4) shows the graph representing the five core values or components extracted from CVS items in our data.
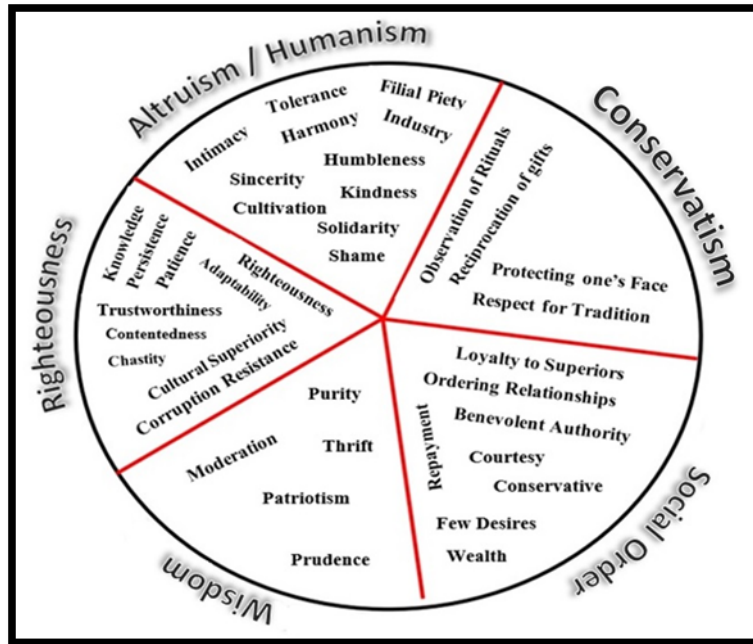


**Figure (4): The Five Core Values extracted from CVS**

Therefore, the 40 basic values of the CVS produced five distinct and statistically independent Core values as follows:

- **a. Altruism/Humanism (Jen).** In the Chinese philosophy, the main concept of Jen (wren) refers to benevolence, love, altruism, kindness, perfect virtue, goodness, human-heartedness and humanity (Chong, 1999). In general, it refers to all ethics that makes a person distinctively Human and constitute the meaning of humanity. This includes, as shown in the results, filial piety, tolerance, harmony, kindness, cultivation, etc.

- **b. Conservatism.** As previously discussed, this usually refers to complying with the norms governing the society.

Conservation as a core value includes basic values like preserving rituals, respect for tradition, the reciprocation of gifts, and protecting one's face in one's community.

c. **Social Order (Li).** In the Chinese philosophy Li refers to propriety, discipline, or norms governing polite behavior in order to build civilized institutions. Li has two basic meanings: (1) the rules of proper actions, and (2) the general principle of social order. Confucius used the second meaning of Li to necessitate order in the entire way of life, claiming that there must be limits to individuality (Hwang, 2018). In this research, social order (Li) as a core value includes basic values like Loyalty to superiors, Ordering relationships by status and observing this order, Benevolent authority, Repayment of both the good and the evil that another person has caused you, Courtesy, Being conservative, Having few desires, and Wealth.

d. **Wisdom (Chih).** In Confucianism, Chih refers to moral wisdom; the source of this virtue is knowledge of right and wrong. In this research, Wisdom (Chih) as a core value includes basic values like Moderation, following the middle way, Patriotism, Keeping oneself disinterested and pure, Thrift, Prudence.

e. **Righteousness (Yi).** In Confucianism, Yi refers to doing what is proper, it symbolizes the best way of doing things. Yi represents the ability to recognize what is right and what is wrong. In this research, Righteousness (Yi) as a core value includes basic values like Knowledge, Sense of righteousness, Personal steadiness and stability, Resistance to corruption, Persistence, Patience, A sense of cultural superiority, Adaptability, Trustworthiness, Contentedness with one's position in life, and Chastity in women

### 4.1.3. Job Preferences:

The data from the respondents' choices out of the 17 criteria to be satisfied in a job were also 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 varimax rotation of Six factors was performed, and almost all items had absolute loadings greater than 0.40.

It could be noticed that even when selecting the aspects that are important in a job, there is an influence of some core values. The extracted core values are as follows:

a. **Humanism and Social Responsibility.** A job that is useful for society, responsible, in which people are treated equally, and in which the person has a say in important decisions.

b. **Conservatism.** A job that is family friendly and has good job security and good hours.

c. **Self-Indulgence.** A job that has too much holidays and doesn't exert too much pressure.

d. **Self-Fulfillment.** A job that is interesting and in which you feel you can achieve and work with pleasant people.

e. **Stimulation.** A job that in which you meet new different people, learn new skills and there is an opportunity to use initiative.

f. **Materialism.** A job with a good pay.

## 4.2. Social Network Analysis of Core Values

In order to test whether there is a statistically significant relationship between the five extracted core values of CVS, the five extracted core values of Schwartz Values Survey and the six extracted core values of job preferences, the researcher conducted a bivariate correlation analysis. This shows that there is a statistically significant correlation between twenty-one pairs of core values.

Taking into consideration these statistically significant correlations or linkages, and in order to better understand the interlinkages or associations between pairs of values categories from different survey items, I visualized these links using a network analysis methodology and Gephi Software. The resulting network is as shown in Figure (5).

From this network, we can calculate some centrality measures, like degree, weighted degree, betweenness, closeness, and eigenvector centralities. In this research, the weighted degree and eigenvector centrality measures are of the most interest. Weights here represent the strength of the interlinkage between two values in terms of the absolute value of correlation index, and it is graphically represented as the weight of the edge connecting two nodes. Figures (6) and (7) show our values network re-scaled based on weighted degree and eigenvector centrality, resp.
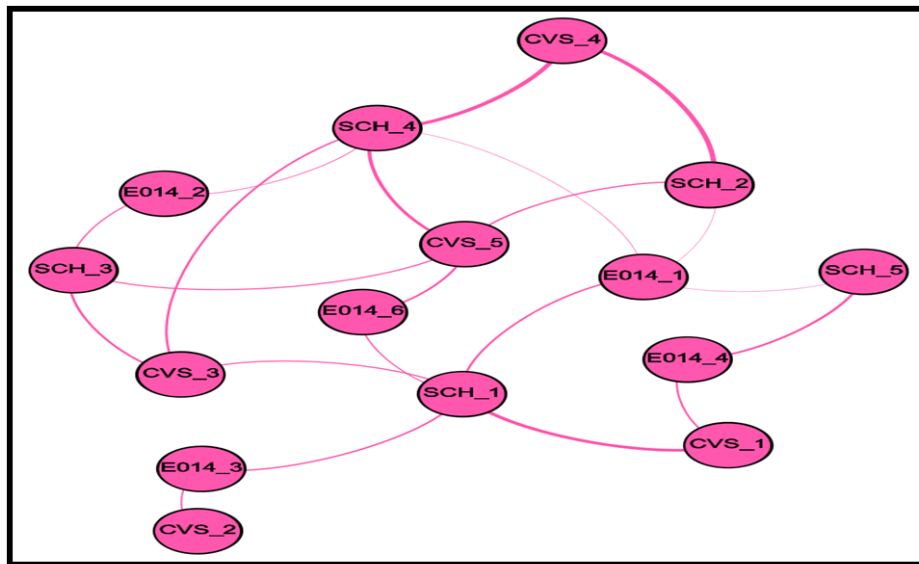


**Figure (5): The Network of extracted Core Values**

From the results of the SNA, it could be noticed that:

a. Schwartz' Altruism/Humanism and Conservatism have the maximum weighted degree, followed by Social Order, then by CVS Conservatism, then by Individualism, then by Wisdom, and then by Humanism/Social Responsibility in job preferences. Weighted Degree centrality measure gives us a notion about the extent to which a node is connected with other nodes inside the network, weighted by the strength of these connections.

b. Schwartz' Conservatism has the maximum Eigenvector centrality, followed by Humanism/Social Responsibility in job preferences, then by Social Order, then by Schwartz' Altruism/Humanism, then by Wisdom, then by Individualism, and then by Self-Development. Eigenvector centrality measure gives us a notion about the extent to which a node is connected to more connected nodes.

c. Merging up the previous two results, it could be claimed that *Conservatism*, *Humanism*, *Social Order*, *Individualism* and *Wisdom* constitute a set of the most focal or central core values extracted from different values surveys. It could also be noticed that among this most central set, Conservatism holds the first position.

*Stimulation* as a criterion in a job is not related to any other core value, which means that it is of a distinctive nature. Moreover, *Righteousness* is not connected to any other core value, except with self-Indulgence in a job and the correlation is negative. This also gives us a notion about the distinctiveness of this core value.
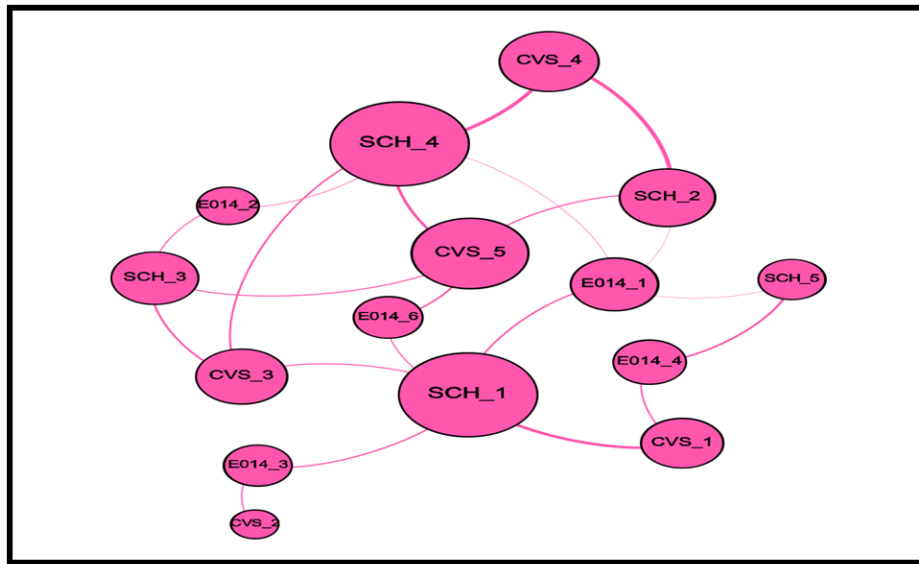


**Figure (6): The Network of Core Values re-scaled based on Weighted Degree Centrality**

مجلة وادي النيل للدراسات والبحوث الإنسانية والاجتماعية والتربوية (مجلة علمية محكمة)
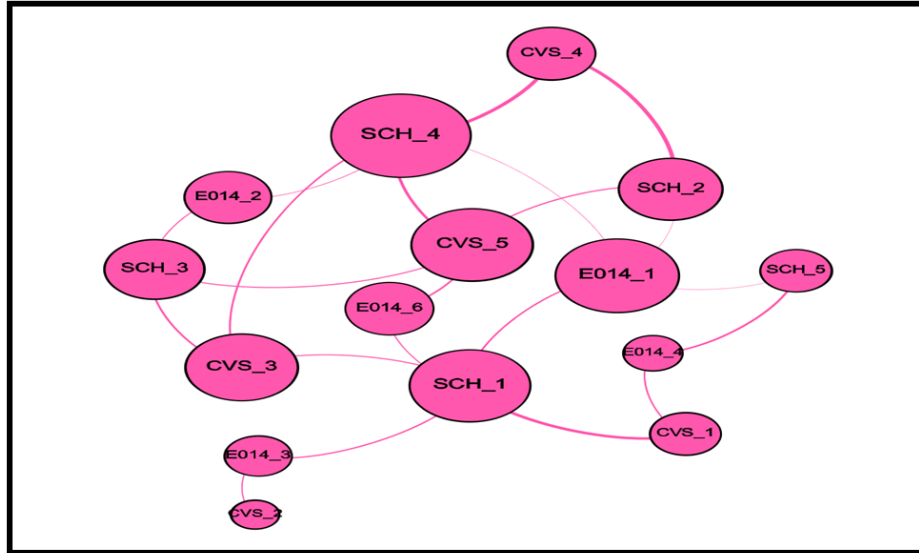


**Figure (7): The Network of Core Values re-scaled based on Eigenvector Centrality**

## 5. Conclusion

Culture, as a complex system, is constituted of many interrelated and interdependent components, of which the core component is "values". Moreover, value orientations are neither random nor independent, however there is a compact value system underlying any culture. To study this value system, we shall study the different values existing in this culture and how they are interlinked to each other and to other tendencies and attitudes. Although values are invisible, they value-orientations can be deduced from different surveys that are designed to assess these values from the respondents' answers.

Analyzing the respondents' answers Schwartz Value survey (representing western surveys) and CVS (representing eastern surveys), 8 Core (Focal) Values were extracted, namely: Altruism/Humanism, Conservatism, Individualism, Self-Development, Self-Indulgence, Social Order, Wisdom, Righteousness. Asking the same respondents to select the criteria they find important in a job, 6 core values were extracted, namely,

Humanism, Conservatism, Self-Indulgence, Self-Fulfillment, Stimulation and Materialism.

Interlinkages exist between these core values, and a Social Network Analysis of these interlinkages show that the most central core values are *Conservatism*, *Humanism*, *Social Order*, *Individualism* and *Wisdom*. *Stimulation* and *Righteousness* are the least connected core values. It could be noticed here that the core values extracted from our sample are a mixture between western and eastern values. So, although there are interlinkages between core values from different surveys, there are distinct core values in both that could not be substituted with one another.

Analyzing the five most central core values underlying the value system of a sample of 360 university students in Egypt, it could be noticed that despite the tendency of youth to deviate from the prevailing culture (which appeared in their tendency towards being autonomous, creative, and distinct – Individualism), they still have the same prevailing Egyptian cultural system in terms of:

- Preserving human ethics and spirituality and keeping oneself pure.
- Complying with norms and traditions in their society, and a need for belonging to and being respected in their local communities.
- Preserving social order and exhibiting loyalty to superiors and observing the ranks in social relationships.
- Moderation, and following middle ways and rejecting any sort of extremism.

In the light of this analysis, one can explain or understand the behaviors of Egyptian youth during the uprising of 25th of January 2011, when the security grip collapsed, the youth reorganized themselves to form groups to protect their neighbourhood and streets and preserving order. This analysis can also explain the rejection of extremism and violence exerted by Muslim Brotherhood during their rule, which was obvious in the revolution of 30th of June 2013.

Therefore, studying the core values underlying the cultural system of Egyptian youth enables explaining and understanding attitudes and behaviors towards any change in the social and political system.

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