

Culture as a Multi-Level and Multi-Layer Construct

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Abstract

This paper is concerned with reviewing the literature that covers the concept of culture and aims to analyze its multi-level and multi-layer characteristics. Starting from the many definitions given over time for culture by anthropologists, sociologists, psychologists, and other researchers, some of the characteristics of culture have been identified. One of them is the fact that culture can be analyzed at different levels, and each level consists of multiple elements. The aim of reviewing the existing models from the literature was to identify which are the common levels and layers for those models. Based on that, a model that encompasses both levels and layers is proposed.

Keywords: culture, multi-level characteristic, multi-layer characteristic

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1. Introduction

Nowadays, culture is a very popular word. Searching for it on Google returns over 6 billion results while, searching on Google Scholar returns over 6 million papers. Culture is essential for social sciences and humanities studies, but it has spread further to other areas, for example in architecture and arts (Baldwin et al., 2006). Although there is so much information about culture, there still are many unsolved issues regarding this concept. Researchers point out that there are no universally accepted definitions of culture (Wilhelms et al., 2009). From its many available definitions, researchers identified some important characteristics of it. Culture characteristics are subject to another debate in the literature and each one can be considered a research topic (Minkov, 2012). The same author discussed culture complexity, meaning that culture can be analyzed at different levels, not only at national level as researchers used to. A national culture includes many subcultures but is also part of higher levels. This characteristic is also known in the literature as the multi-level characteristic of culture. Culture is also considered a multi-layer construct. This characteristic targets the elements of culture. The layers mentioned before are basically the elements of culture, which are arranged according to their visibility.

In this paper, it will be briefly discussed all the theories presented above. The first section of the paper discusses some definitions of culture given by specialists in this domain. From these definitions, it was possible to extract some of the many characteristics of the culture. A small section is dedicated to the way that

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culture is defined and perceived by researchers from different areas, such as anthropologists, sociologists, and psychologists. The next sections of the paper target the two characteristics of culture presented before, culture as a multi-level construct and culture as a multi-layer construct. Some well-known models that highlight each of these characteristics are being analyzed. The contribution to the existing literature consists of comparing the models presented, in order to find out which are the levels and elements of culture mentioned the most. Also, a new model is proposed, based on the reviewed literature, which combines the multi-levels and multi-layers of culture. Finally, some conclusions are made with the aim of encouraging further research on this topic.

2. Definitions of culture

One of the first definitions of culture belongs to Sir Edward Tylor who defines it in his book *Primitive Culture* (1871) as “that complex whole which includes knowledge, belief, art, moral, law, custom and any other capabilities and habits acquired by man as a member of society”.

Since then, many authors have defined culture based on Tylor’s definition or creating a new definition using their own imagination. (Kroeber and Kluckhohn, 1952), have made “A critical review of concepts and definitions”, as the title of their book says. They reviewed 164 different definitions for culture, starting with the one provided by Tylor. Based on their research, they defined culture as follows: “culture consists of - patterns, explicit and implicit, of and for behaviour acquired and transmitted by symbols, constituting the distinctive achievement of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional (i.e. historically derived and selected) ideas and especially their attached values; culture systems may, on the one hand, be considered as products of action, on the other as conditioning elements of further action”.

Now, more than 60 years have passed and the number of definitions seems to only be increasing (Taras et al., 2009). The same authors have made an analysis and found out that even though those definitions seem to be different, they have some common elements. First of all, everyone agrees that culture is “a complex multi-level construct”. The second common element in all definitions is that culture is something shared between people in the same group or society. This characteristic of culture allows people to predict, with some limitations, the behaviour of other people (Andreatta and Ferraro, 2012). This prediction leads to another characteristic: culture is patterned. In every culture, people have rituals, daily routines, and habitual behaviours and when this kind of individual behaviour becomes repetitive, it “leads to the shaping of the individual’s reality” and finally, it will be transformed into the right thing to do, or the thing accepted by the society (Bonder et al., 2004).

Although culture is formed relatively in a long period of time and it is considered to be stable at this moment, no culture is totally static. Culture changes through two types of processes: innovation and diffusion. When culture changes

internally, one can talk about innovation, and when culture changes by borrowing from other cultures, one can talk about diffusion (Andreatta and Ferraro, 2012).

One of the most known authors when it comes to culture, is Geert Hofstede. He defines culture as “the collective programming of the mind that distinguishes the members of one group or category of people from another” (Hofstede, 2001).

Following this definition, further (Hofstede et al., 2010), identified some major characteristics of culture. Firstly, “culture is always a collective phenomenon” because it is learned from the community where one lives and from that derives the second characteristic: culture is learned, not inherited. From the two above it can be concluded that culture is formed by the interaction of individuals and it depends on the social environment they have and not on the genes they have (Hofstede et al., 2010). Also, other authors explained this characteristic of culture. (Lustig et al., 2006) gave a very useful example to explain how culture is learned. They provided the case of newborn babies and how they learned from adults' behaviour. Even if two babies were born at the same time, but in two different parts of the world, they will probably be taught to react differently to physical and social stimuli. Maybe one of them will be taught to smile at strangers, while the other will be taught to smile just in specific situations. The process of learning culture is known as enculturation.

Beside the characteristics discussed above, cultural universality should also be mentioned. Cultural universality, also known as etic cultural elements, are common elements which can be identified in all cultures (Andreatta and Ferraro, 2012). There are also distinctive or emic elements (Spencer-Oatey and Franklin, 2012). These two types of elements are analyzed for different purposes: researchers focus on emic elements when they study cultures independently, one by one, and focus on cultural etic elements when they compare cultures (Triandis, 1994).

The last characteristic of culture discussed is the link with symbols. A symbol is something that stands for something else. As examples of symbols, one can think about language, money and art. Language is the most important symbolic component of culture.

Further, a distinction must be made between culture and human nature, and between culture and personality. Those two distinctions are explained by Hofstede. He imagined the link between those three concepts as being similar to Maslow's hierarchy of needs. At the bottom of the pyramid is human nature, which is something universal and inherited. Then, the middle layer is the culture, which is specific to groups and is learned. On the top of the pyramid is personality, which is something specific to an individual. Personality is both inherited and learned. This figure represents “Three Levels of Uniqueness in Mental Programming” (Hofstede et al., 2010). Human nature is the sum of everything people have in common. One can think about, for example, the human ability to feel fear, anger, love, joy, sadness or the human desire to interact with others. All these are inherited, but what each person does with these feelings and how each person expresses their feelings, is influenced by the culture. One's personality is made up of “a unique

personal set of mental programs”. As in the case of human nature, personality is also influenced by culture (Spencer-Oatey and Franklin, 2012).

Anthropologists have debated for decades about what culture really is. They tried to study the concept and tried to define it. Nowadays, culture is discussed by experts in different fields. Researchers from management, sociology, and social psychology researchers, as well as psychologists, are showing their interest in this concept (Taras et al., 2009).

The concept of culture is fundamental in anthropology (Kottak, 2015). Maybe this is the reason why among anthropologists, take as an example Geertz and Ortner, there is this worry about the culture concept. (Geertz, 1996) and (Ortner, 1999) have both perceived the concept of culture as a troubling one. Although this concept has been studied by anthropologists for years, they couldn't agree with a single definition for it. Every anthropologist knows that there is little agreement on what culture means, in their field (Trouillot et al., 2002). The same authors written in their book that anthropologists “have become increasingly dissatisfied with the traditional definition of culture within anthropology, by which culture is a highly patterned and consistent set of representations (or beliefs) that constitute a people's perception of reality and that get reproduced relatively intact across generations through enculturation” (2002, p.1). In contrast with this narrow view of what culture is, a wider definition of culture has been identified: “...it is a totalizing concept because everything becomes, or is considered, culture. There is material culture, ritual culture, symbolic culture, social institutions, patterned behaviour, language-as-culture, values, beliefs, ideas ideologies, meanings and so forth. Second, not only is almost everything in a society culture, but the concept is also totalizing because everything in a society is supposed to have the same culture (as in the concept of culture as shared values)...” (Sider, n.d.).

When sociologists are trying to define culture, they tend to differentiate it from other sociological concepts. They usually speak about the difference between culture and society. Also, they speak about some internal differences, for example the difference between “material” and “symbolic” culture. For archaeologists it is more important the material culture because it is better preserved over the years. On the other side, both anthropologists and sociologists are more concerned about symbolic culture (Hall et al., 2003). Sociology is probably the discipline that is closest to anthropology. Sociologists define symbolic culture as the totality of values and beliefs, language, communication, and practices that are shared by a group of people. Material culture is defined by the things that humans make and use, such as literature, music, art, and others.

Over the years, psychologists were interested in culture as a determinant or as an influencing variable of the human behaviour and his way of thinking. In this context, (Lonner and Adamopoulos, 1997) reviewed many papers about culture written by psychologists, taking into account two major characteristics: the status or importance (primary or secondary) of the construct of culture within each perspective and the type of influence (direct or indirect) that culture is assumed to have on individual functioning. Four different perspectives on culture emerged

from this analysis: (1) culture as an enabling cause of behaviour; (2) culture as the construction of enabling rules; (3) culture as a restrictive cause of behaviour; and (4) culture as the construction of restrictive rules. These four perspectives are represented by (Matsumoto, 2001) as a diagram with four dials, named Assumptions about the Role of Culture in Psychological Theory (p. 29).

In conclusion, there are major differences between the social sciences in the way they approach culture.

3. Models of culture

3.1 Models regarding levels of culture

One major characteristic of culture, as was mentioned before, is the fact that it is “a complex multi-level construct.” Many researchers, including (Leung et al., 2005), underline the existence of multiple levels of culture, but also multiple layers of culture. According to the same author, culture should be regarded as a “construct that consists of various levels nested within each other” (p. 362). Basically, culture can be discussed at various levels of society. Researchers developed numerous models to illustrate that culture is a multi-level construct.

(Pizam, 1993) proposed a hierarchy, explaining that culture can exist at supranational, national, industrial, occupational, corporate and organizational levels and providing examples for each category. Pizam also thought that everyone belongs to at least one level of culture.

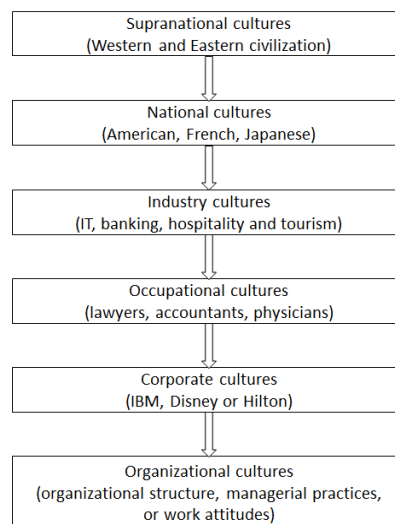


Figure 1. A hierarchy of cultures
(Adaptation from (Pizam, 1993), p. 206)

Another example is the model proposed by (Erez and Gati, 2004) (see Figure 2). In their article, these two authors were also interested in the multi-level

characteristic of culture and designed a multi-level model of culture, taking into account the interplay between different levels. Their model has five levels of culture, with the individual cultural self-representation nested inside the model, and represents the micro-level of culture. Further, the next levels are the group culture, organizational culture, national culture and global culture. The global culture is the macro-level of culture. The dynamic characteristic of culture is represented by two processes: top-down and bottom-up processes. The global culture influences through top-down processes the behaviour of individuals from different cultures. The other way around when the behavior of individuals suffers changes, these changes lead to changes of norms and values, which become accepted at the macro-level.



Figure 2. The dynamic of top-down–bottom-up processes across levels of culture
 (Source: Erez and Gati, 2004), p. 588)

(Karahanna et al., 2005) model encompasses six interrelated levels of culture: individual, group, organizational, professional, national and supranational (see Figure 3 below).

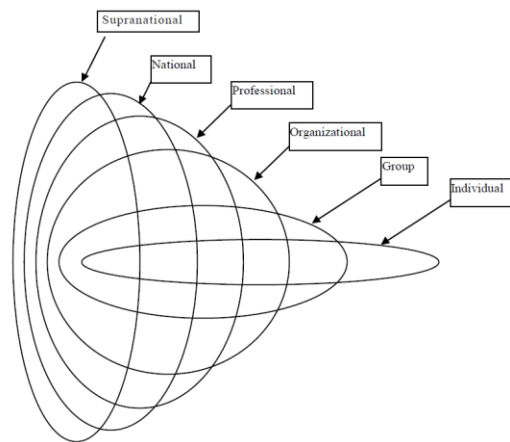


Figure 3. Interrelated levels of culture
 (Source: Karahanna et al., 2005)

Another model of cultural layers is the one proposed by (Wilhelms et al., 2009). After reviewing the literature, they identified six levels of culture, starting with the individual level, similar with the other two models exposed above. The other cultural layers are micro culture, meso culture, macro culture, meta culture and global culture. The authors gave some examples for each category. A micro culture can be the family, the firm or a group of friends. A meso culture can be two or more firms or families, or the culture of a city, a state, an industry sector or an occupation. The macro culture refers mostly to a nation or a country, but also, one can think about a national industry or an occupation on a nationwide scale. Meta culture refers to two or more national cultures or to some international organization (for example the EU). All the examples mentioned before can become a global culture if they are examined on a global scale.

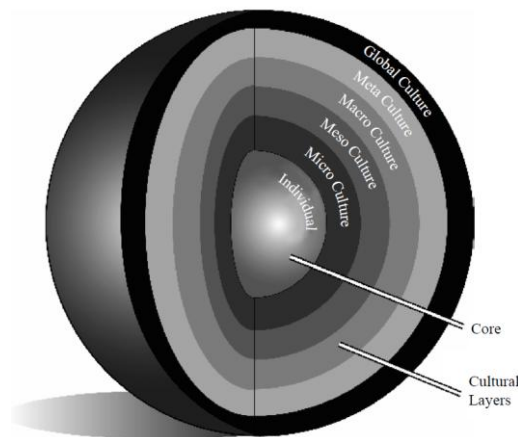


Figure 4. Sphere of cultural layers: standardized classification model
(Source: Wilhelms et al., 2009)

3.2 Models regarding elements of culture

The models presented so far are describing the multiple levels of culture, but there is another approach when it comes to models of culture, which is regarding the elements that exist at every level of culture mentioned above. These models use the term layer, “meaning the degree to which the cultural phenomenon is visible to the observer” (Schein, 2010). The identified models divide the elements of culture into two, three, four or even five layers.

In his book *Beyond culture* published in (1989), Edward T. Hall has developed the iceberg analogy of culture, dividing the components of culture in two types: observable (visible) and non-observable (invisible). The components of culture that can be seen, which are also known as *surface culture*, are the tip of the iceberg and include behaviour and practices. The part of the iceberg hidden beneath the surface are the things which are difficult to see or can’t be seen at all, also known as *deep culture*, and include perceptions, attitudes, values and beliefs.

(Schein, 1992, 2010) was among the firsts researchers who classified the elements of culture according to their visibility or invisibility. In his book, Schein describes the three levels of culture. The first level consists of artifacts and creations and is the most visible part of a culture. The middle level consists of espoused beliefs and values. These include ideals, goals, values, aspirations, ideologies, and rationalizations. The third level consists of basic assumptions. These are all the “taken-for-granted beliefs and values”.

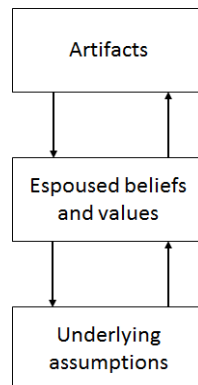


Figure 5. The Three Levels of Culture
(Based on Schein, 2010)

(Trompenaars and Hampden-Turner, 1997) also defined culture by using a multi-layer approach, named the “onion” diagram, following Hofstede’s idea. The first layer of the diagram consists of explicit elements, such as artifacts and products. Basically, these are the things of a culture that are observable, such as language, food, buildings, houses, monuments, agriculture, shrines, markets, fashions, and art. Explicit cultures reflect deeper layers of culture. The second layer is formed by norms and values. Norms are representations of acceptable group conduct. They determine what is “right” and “wrong”. Values determine what is “good” and “bad”. The core of their diagram consists of “basic assumptions”, which are implicit, taken for granted and considered an unquestioned reality.

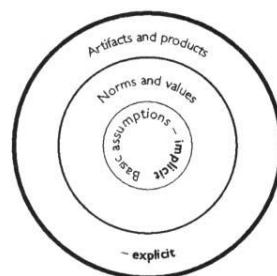


Figure 6. A model of culture
(Source: Trompenaars and Hampden-Turner, 1997), p. 22)

Another model which presents the multiple layers characteristic is the one proposed by Geert Hofstede, known as Hofstede's "onion" diagram (Figure 1). It shows the manifestation of culture at different levels of depth and includes: symbols, which are the most superficial manifestations of culture, the middle layers consists of heroes and rituals, and the core of the onion consists of values, which are the deepest manifestation of culture (Hofstede, 2001; Hofstede et al., 2010). Hofstede defined symbols as "words, gestures, pictures, or objects that carry a particular meaning that is recognized as such only by those who share the culture" (Hofstede et al., 2010, p. 8). A symbol can be the way people from a culture dress, or their language or their flag, if they have one. Old symbols are easily replaced by new ones, and also copied in other cultures. Heroes can be alive or dead, real or imaginary persons which are considered models of behaviour in a certain culture. According to Hofstede, "rituals are collective activities that are technically superfluous to reach desired ends but that, within a culture, are considered socially essential" (p. 9). Symbols, heroes and rituals are visible to outside observers through practices. The core of culture consists of values, which are defined as "feelings with an added arrow indicating a plus and a minus side" (p. 9). For example, the pairing good versus evil, or clean versus dirty.

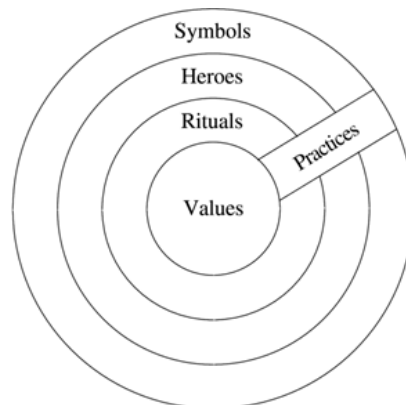


Figure 7. The "Onion" Diagram
(Source: (Hofstede, 2001), p. 24)

(Spencer-Oatey, 2004) proposed a new framework inspired by Hofstede's, Trompenaars and Hampden-Turner's models. The novelty of the proposed model consists of three facts. Firstly, the author combined the two elements of the inner core of culture, namely basic assumptions and values. Secondly, a new layer is proposed, the one of systems and institutions, and refers to structures of a society where the values and norms are transmitted. Thirdly, the author split the outer layer into two parts: artifacts and products, which are material items, and rituals and behaviour, which are non-material elements.

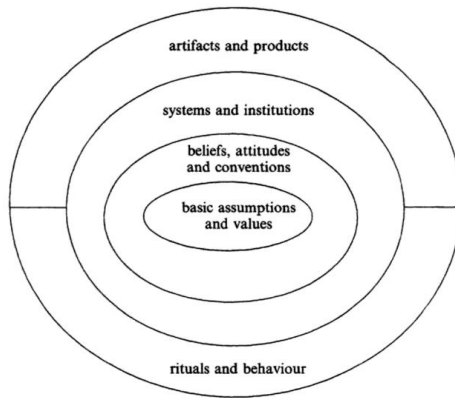


Figure 8. Manifestations of culture at different layers of depth
 (Source: Spencer-Oatey, 2004)

The framework proposed by (Rousseau, 1995) is the most comprehensive one, due to the fact that it divides the elements of culture into five layers: artifacts, patterns of behavior, behavioral norms, values and fundamental assumptions.

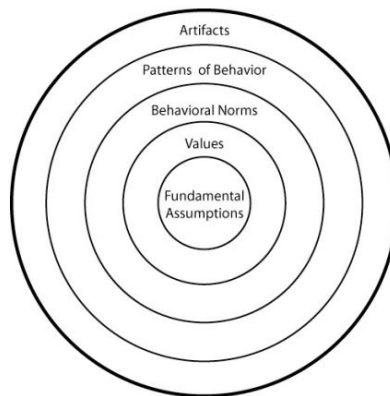


Figure 9. Layers of culture
 (Adaptation from Rousseau, 1995)

4. Comparison of models

This section of the paper aim is to analyze and compare the cultural models presented in the previous section.

4.1 The correspondence of culture levels between models

Table 1. The correspondence of culture levels between models

Pizam, 1993	Erez and Gati, 2004	Karahanna et al., 2005	Wilhelms et al., 2009
	Global		Global
Supranational		Supranational	Meta culture
National	National	National	Macro culture
Industry		Professional	Meso culture
Occupational			
Corporate			
Organizational	Organizational	Organizational	Micro culture
	Group	Group	
	Individual	Individual	Individual

Based on the reviewed literature, it was possible to compare the models representing the multi-level characteristic of culture. From the table above it can be observed that the corporate level is the only level included in only one model. The corporate level is very similar to the organizational level. Nowadays, corporations have multiple head offices all over the globe, but basically, they are working as usual organizations. The global level was included in two of four models. The global level is important because there are many elements of culture shared between all (or almost all) people on Earth. For example, almost everyone agrees that killing another human being is something wrong. The other levels were incorporated in three or in all four reviewed models. The professional culture or meso culture, encompass both occupational and industry culture, so it can be observed that these two levels of culture are mentioned in three of the four reviewed models. In the same situation are also individual, group, and supranational culture. National and organizational culture are the only ones that are mentioned in all four reviewed models.

In conclusion, except for corporate culture, all the other levels of culture are important and should be considered when discussing the levels of culture.

4.2 The correspondence of culture elements between models

Table 2. The correspondence of culture elements between models

Hall, 1976	Schein, 1992, 2009, 2010	Trompenaars and Hampden-Turner, 1997	Hofstede, 2001		Spencer-Oatey, 2004	Rousseau, 1995
Visible elements						
	Artifacts and creations	Artifacts and products	Symbols	Practices	Artifacts and products/ Rituals and behaviour	Artifacts
Behaviour and practices			Heroes			Patterns of behaviour
			Rituals			
						Behavioral norms
					Systems and institutions	
Invisible elements						
Perceptions, attitudes, values, beliefs	Values	Norms and values			Beliefs, attitudes and conventions	Values
	Basic assumptions	Basic assumptions	Values		Basic assumptions and values	Fundamental assumptions

In most reviewed models, basic assumptions are the core of culture. (Spencer-Oatey, 2004) is the only author who proposed combining basic assumptions and values. The other point of view, namely treating these two elements separately, is more accepted among researchers. The third layer mentioned in almost all models is behaviour, under different names. The most visible element of culture, which forms the outer layer of the models is the artifacts.

4.3 Culture as a multi-level and multi-layer construct

Based on the models revised in the previous sections and on the comparison between them, a new model is proposed. This model includes the levels and layers most mentioned in the reviewed models. The proposed model aim is to encompass both perspectives on culture, namely culture as a multi-level construct and culture as multi-layer construct. Similar to (Leung et al., 2005), it can

be affirmed that culture as a multi-layer construct can be identified at each level, from individual to global.

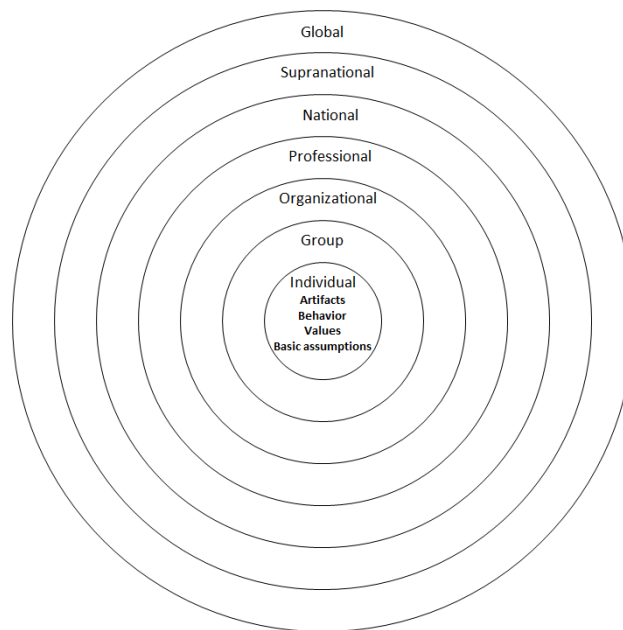


Figure 10. Culture as a multi-level and multi-layer construct

5. Conclusions

Culture will still be a controversial topic and agreement between researchers is far from reach. Culture definitions vary from one author to another, from one area to another and this is also the same when it comes to culture's characteristics. As one could observe while analyzing different models from the literature, the authors proposed models of culture with five or six levels of culture. The present proposal includes the most mentioned levels within the reviewed models and consists of seven levels of culture. The levels of culture included in this model are, from bottom to top, the following ones: individual, group, organizational, professional, national, supranational, and global. Regarding culture as a multi-layer construct, the reviewed models include from two to five categories of elements. For this model, four categories of culture elements are proposed, as follows: the core of culture consists of basic assumptions, the second layer are values, followed by behaviour and the outer layer is formed by artifacts.

This paper proposed a new direction for discussing culture, by combining culture levels and layers into one model. Future research is needed, in order to prove the validity of the model.

Acknowledgements

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References

1. Andreatta, S., Ferraro, G., 2012. Elements of culture: An applied perspective. Nelson Education.
2. Baldwin, J.R., Faulkner, S.L., Hecht, M.L., Lindsley, S.L., 2006. Redefining culture: Perspectives across the disciplines. Routledge.
3. Bonder, B.R., Martin, L., Miracle, A.W., 2004. Culture emergent in occupation. *American Journal of Occupational Therapy*, 58(2), pp. 159-168.
4. Erez, M., Gati, E., 2004. A dynamic, multi-level model of culture: from the micro level of the individual to the macro level of a global culture. *Applied Psychology*, 53(4), pp. 583-598.
5. Geertz, C., 1996. *After the fact* (Vol. 5). Harvard University Press.
6. Hall, E.T., 1989. *Beyond culture*. Anchor.
7. Hall, J.R.C., Hall, J.R., Battani, M., Neitz, M.J., 2003. *Sociology on culture*. Psychology Press.
8. Hofstede, G., 2001. *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Sage publications.
9. Hofstede, G., Hofstede, G.J., Minkov, M., 2010. *Cultures and Organizations: Software of the Mind*. Revised and expanded 3rd Edition. N.-Y: McGraw-Hill.
10. Karahanna, E., Evaristo, J.R., Srite, M., 2005. Levels of culture and individual behavior: an investigative perspective. *Journal of Global Information Management (JGIM)*, 13(2), pp. 1-20.
11. Kottak, C.P., 2015. *Cultural anthropology: Appreciating cultural diversity*. McGraw-Hill Education.
12. Kroeber, A.L., Kluckhohn, C., 1952. *Culture: A critical review of concepts and definitions*. Papers. Peabody Museum of Archaeology & Ethnology. Harvard University.
13. Leung, K., Bhagat, R.S., Buchan, N.R., Erez, M., Gibson, C.B., 2005. Culture and international business: Recent advances and their implications for future research. *Journal of International Business Studies*, 36(4), pp. 357-378.
14. Lonner, W.J., Adamopoulos, J., 1997. Culture as antecedent to behavior. In J.W. Berry, Y.H. Poortinga, & J. Pandey. 1997. *Handbook of cross-cultural psychology: Theory and method* (Vol. 2, pp. 43-83). Allyn & Bacon.
15. Lustig, M.W., Koester, J., Halualani, R., 2006. *Intercultural competence: Interpersonal communication across cultures*. Pearson/A and B.
16. Matsumoto, D., 2001. *The handbook of culture and psychology*. Oxford University Press.
17. Minkov, M., 2012. *Cross-cultural analysis: The science and art of comparing the world's modern societies and their cultures*. Sage Publications.
18. Ortner, S.B., 1999. *The fate of "culture": Geertz and beyond*. Univ of California Press.
19. Pizam, A., 1993. Managing cross-cultural hospitality enterprises. *The International Hospitality Industry: Organizational and Operational Issues*, pp. 205-225.

21. Rousseau, D., 1995. Psychological contracts in organizations: Understanding written and unwritten agreements. Sage publications.
22. Schein, E., 1992. Organizational culture and leadership. Jossey-Bass Publishers
23. Schein, E.H., 2010. Organizational culture and leadership. John Wiley & Sons.
24. Sider, G.C., n.d. Class in Anthropology and History: A Newfoundland Illustration. Cambridge: Cam-Bridge University Press.
25. Spencer-Oatey, H., 2004. Culturally speaking: Managing rapport through talk across cultures. A&C Black.
26. Spencer-Oatey, H., Franklin, P., 2012. What is culture. A compilation of quotations. Global Core Concepts, pp. 1-21.
27. Taras, V., Roney, J., Steel, P., 2009. Half a century of measuring culture: Review of approaches, challenges, and limitations based on the analysis of 121 instruments for quantifying culture. *Journal of International Management*, 15(4), pp. 357-373.
28. Triandis, H.C., 1994. Culture and social behavior. McGraw-. Hill.
29. Trompenaars, F., Hampden-Turner, C., 1997. Riding the waves of culture: Understanding cultural diversity in business. Nicholas Brealey.
30. Trouillot, M.-R., Fox, R.G., King, B.J., 2002. Anthropology beyond Culture. Berg.
31. Tylor, E.B., 1871. Primitive culture: researches into the development of mythology, philosophy, religion, art, and custom. J. Murray.
32. Wilhelms, R.W., Shaki, M.K., Hsiao, C.-F., 2009. How we communicate about cultures. *Competitiveness Review: International Business Journal*, 19(2), pp. 96-105.