

THE NINTH DIMENSION OF NATIONAL CULTURE: UNPACKING CROSS-CULTURAL COMMUNICATION STYLES

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ABSTRACT

This article aims to study the communication styles among different national cultures; that is, we examine the relationship between national culture, based on the Hofstede model, and communication styles. In order to investigate the role of national culture, it is fundamental first to analyze the communication styles and then identify how these are related to each other, with the purpose of identifying differences (or similarities) in communication styles across selected countries, a factor analysis was conducted, combined with an ANOVA test. Based on a sample from 10 different cultures: Germany, Sweden, Japan, China, Russia, Italy, the United States, the United Kingdom, Serbia and North Macedonia, and using communication assessment instrument as well as the data on Hofstede's six dimensions of national culture model, the findings show that different national cultures practise different communication styles. When the Professional-Casual communication style is concerned, Germany is the most professional, while Japan is the most casual; that is, the least professional of all while the analysis of the Cold-Warm communication style leads us to the fact that Sweden is the coldest, and the US is the warmest country. The study's significance is hopefully fundamental since it proposes an additional dimension, which is as frequent among cultures as it is rooted deeply in each culture. In this way, the article recommends that the countries ought to both comprehend their national culture and utilize it as a "tool" for understanding other cultures as well.

KEY WORDS

national culture, Hofstede, dimensions, communication, communication styles

CLASSIFICATION

JEL: D83

INTRODUCTION

Throughout the years, researchers have developed a number of hypotheses regarding national culture and how it is perceived in the society [1, 2]. According to Hofstede [3], culture is collective mental programming that differs one society from another. Symbols, rituals, ideals, and heroes are the four levels of culture in the society. By serving as symbols, objects and natural phenomena can change over time. In order to accomplish desired goals, rituals are particular beliefs that are practised in culture. In the society, heroes are revered as national icons where values are crucial components. They can be learnt early in life, are unseen, and do not alter [4]. In order to better understand the concept of national culture, identification of its different dimensions has greatly affected progress over the past several decades in comprehending cultural variations. The dimensions of national culture have been examined in numerous studies and have been frequently used in research, with Hofstede's model being one of the most common frameworks that has been utilized extensively in relation to national culture.

On the other hand, by definition, interpersonal communication is commonly characterized as "dyadic communication in which two individuals, sharing the roles of sender and receiver, become connected through the mutual activity of creating meaning" [5, 6]. Therefore, the acts of communication consist of content and relationship aspects, and of the need that all participants in the communication have to understand and interpret the content in a proper way, as well as to build a relation in order to come to a mutually accepted meaning [7].

Although cultural differences in communication have been explored for many years [8], there is a lack of studies that focus on the contrast of communication styles across more than a few countries. Moreover, more frequently, the studies are based on secondary data on national culture, which are not directly related to communication.

The purpose of this research is to suggest additional cultural dimension that will help us understand the cultural roots of communication and enable cultural comparisons that are directly related to how other different cultures use different communication styles. In doing so, the research makes use of Hofstede's dimensional model of national culture, a theory that has been mostly used when examining cultural differences. By using primary research data, the study suggests adding an extra dimension that can assist to explain cultural differences related to communication.

LITERATURE REVIEW

The concept of culture has been debated by anthropologists since the last 1800s, and it is still debatable regarding its proper meaning [9], but Taylor's definition is considered a foundation for all further interpretations of the concept [10]. In his view, culture is seen as "that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society" [11].

Yet, culture is not manifested in an individual; instead, it refers to the whole group.

It can be viewed at the level of organizations and nations. At the organizational level, Robbins and Judge [12] maintain that culture can be understood as a system of shared meaning held by members that distinguishes the organization from other organizations. When Schein [13] talks about culture, he defines it as: "a pattern of basic assumptions – invented, discovered, or developed by a given group as it learns to cope with its problems of external adaptation and internal integration – that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems". Consequently, Bojadjiev [14] defines organizational culture as "an unwritten system of values and norms that determines interactions, behaviours, decision making and processes within the organizations."

Hofstede, Hofstede and Minkov [4], in their examination of culture at national level, associate culture with DNA: "any particular organism (country) preserves its identity long after its initial cells have perished and been replaced because its cells (citizens) continue to pass on the same DNA (culture) through generations [4; p.26]. In this direction, cultures can maintain a constant state over lengthy periods of time, evolve over time, or react to unexpected changes. In [4], the authors argue: "national value systems should be considered given facts, as hard as a country's geographical position or its weather" [4; p.20]. Still, different studies show that cultures do change over decades. In his study, Iglehart [15] demonstrates a different trend in "selfexpression" among Western Europeans in years before and after 1990s. In addition, Olivas-Lujan, Harzing, and McCoy [16] provide evidence of short-term changes in American cultures in terms of "collectivism", "power distance" and "cosmopolitan" due to the terrorist attacks of 9/11, while Murphy, Gordon and Mullen [17] consider changes in American cultures in terms of "family security" and "freedom". Consequently, depending on different study methods, cultural aspects may be considered as fixed and steady, or changeable, both in short and long term. Minkov [9] reveals that there is no one-size-fits-all solution to the question of how stable or changeable culture is in all instances. It rather depends on the society, the type and degree of the influences putting pressure on its culture, and the type of change being tracked.

According to Hofstede [18], national culture means mental programming: "a pattern of thoughts, feelings, and actions that each person acquires in childhood and then applies throughout life". National culture explains the differences in attitudes towards work through differences in age, gender and workplace. In his model of national culture, Hofstede [18] describes the society's culture effect on values, by looking at six dimensions: Power Distance, Uncertainty Avoidance, Individualism / Collectivism, Masculinity / Femininity, Long-/ Short-term Orientation and Indulgence / Restraint [2].

Some researchers question the accuracy of the original data and are not sure whether the data represents cultural trend in modern societies [19]. As a response to this criticism, Hofstede, Hofstede and Minkov [4] believe that, from theoretical standpoint, cultural values remain stable across generations.

Drawing from Hofstede's work on six dimensions of national culture and bringing it into business context, Bojadjiev et.al [20] propose a seventh and eighth dimension called 'fear of failure' and 'high status of entrepreneurs', respectively. They say these dimensions are important since they have an impact on the development of entrepreneurial business, but they are also very much connected with culture because the individuals' entrepreneurial behaviors are influenced by cultural norms and practices [21, 22]. These categories - 'fear of failure' and 'high status of entrepreneurs' are new dimensions that are to be added to Hofstede's already existent six-dimensional model. Figure 1 presents these eight dimensions.

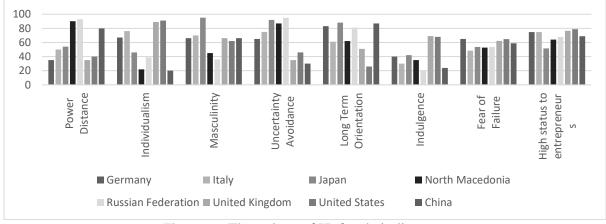


Figure 1. The values of Hofstede indicators.

THE NINTH DIMENSION - COMMUNICATION TYPES

Yet, we do not think Hofstede's model should be only limited to these eight dimensions. As it is a fact that culture does have influence on doing business, we strongly believe that in this interconnection between culture and business, there is another dimension largely affected by culture; thus, we propose the concept of communication, which is normally defined as a two-way process wherein the information, ideas, opinions, thoughts, feelings, etc. are transmitted between the individuals through the use of mutually understood symbols and semiotic rules (signs and symbols) [23].

For the purpose of introducing our analysis, we have examined the two main communication types: non-verbal and verbal.

Non-verbal communication is defined as "communication without words" [24; p.105], "communication without words through a variety of communication channels" [25; p.200], "messages expressed by non-linguistic means" [26; p.200], and also as "all behaviours, attributes and objects (not related to words) that transmit messages and have a common social meaning" [27; p.110].

Psychologist Z. Vybíral accents the following means by which a person communicates in a non-verbal way: 1) gestures; 2) postures; 3) facial expressions (mimics); 4) gaze; 5) the distance and the occupation of location in the space; 6) bodily contact; 7) the tone of voice and other non-verbal aspects of speech; and 8) clothing, jewellery, and other physical aspects of their appearance [28; pp.64-66]. In [29], Broszinsky-Schwabe refers to the language of non-verbal communication through body postures, gestures, facial expressions, eye contact, touches, smells, and the usage of space (distance and proximity).

On the other hand, verbal communication is a type of oral and written communication wherein the message is transmitted by using words. In this case, the sender gives words to his feelings, thoughts, ideas and opinions and expresses them in the form of speeches, discussions, presentations, conversations, but also in emails, letters, reports, and proposals. The effectiveness of the verbal communication depends on the: 1) tone of the speaker, 2) clarity of speech, 3) volume, 4) speed, 5) body language, and 6) the quality of words used in the conversation (written and oral).

Both types of communication (non-verbal and verbal) are connected, but the verbal one is empowered by adding voice to the message, and it is consequently categorized according to the speaking style.

These two types of communication – non-verbal and verbal – are basic elements of our questionnaire, which researches Warm vs. Cold and Professional vs. Casual types of communication. Therefore, they are added to the dimensional model of national cultures.

WARM VS. COLD COMMUNICATION STYLE

Warm vs. Cold style of communication explains the degree to which people belonging to a specific culture use expression, emotion, and empathy while communicating. Our research aims to investigate *touch*, *gestures*, *elaborateness*, *personal space*, *being personal* and *loud* as types of Warm vs Cold communication style.

In continuation, we define the elements that influence the styles we have chosen to research:

Touch

Touch, together with *gestures*, is the very first non-verbal communicative style. As Sekerdej, Simão, Waldzus, and Brito [30] say, it varies in duration and may involve a number of different body parts. People may touch each other simultaneously (e.g., hugs) or there may be a certain

order of touching (e.g., someone reaches out his/her hand first, someone accepts it, or not, and so forth). Either way, Sekerdej et al. state that haptic behavior (i.e., touching) conveys proximity and intimacy that help to establish and maintain a close relationship.

Gestures

As for *gestures*, everybody gestures, and gesture is reduced to a subcategory of non-verbal communication as Clough and Duff [31] say, but that does not mean non-language; on the contrary, it is particularly well-suited for communicating visuo-spatial information which is often omitted from speech entirely.

Elaboreteness

De Mooij [32] defines *elaborate style* as rich, expressive language. Exact or precise style is a style where no more and no less information than required is given. High-context cultures of moderate to strong uncertainty avoidance orientation tend to use the elaborate style. Arab cultures draw on this elaborate style of verbal communication, using metaphors, long arrays of adjectives, flowery expressions and proverbs.

Personal space

As stated by Iizuka, Goto and Ogawa [33], *personal space* was studied by Sommer [34] as one index of people's space behavior and was defined as "a domain of a certain size demarcated by an invisible boundary line" which surrounds an individual and into which others may not come.

Being personal

Murphy [35] defines *being personal* as valuing emotional language, being good at connecting with others, and at assessing how people think and feel. By being personal we approach people more easily, better connect with them and, hopefully, communicate more successfully.

Being loud

Usually, loud people are extrovert, as Kendra Cherry [36] ascribes to extroverts the tendency to think aloud. Lindsay Dodgson [37] is another author who claims that a stereotypical extrovert is loud, sociable, and the life of the party. A study by Min Lee and Nass (2003), cited by Houston [38], postulates that the cause of the extrovert's strong social presence is their tendency to talk more often and in louder voices, to take up more physical space with broader gestures and to initiate more conversations than introverts. Furthermore, extroverts are significantly more confident and accurate when interpreting the meaning of nonverbal communication than introverts [39].

The description of these characteristics enables us to categorize Warm communication as high on *touch*, *gestures*, *being elaborate*, *personal* and *loud*, but low on *personal space*, while Cold communication as low on *touch*, *gestures*, on *being elaborate*, *personal* and *loud*, but high on *personal space*, as shown in Table 1.

PROFESSIONAL VS. CASUAL COMMUNICATION STYLE

Based on the literature review, for styles that label one country as Professional or Casual in communication, the authors suggest a typology that will measure how: 1) *direct*, 2) *quick to provide feedback*, 3) *clear*, 4) *prone to making eye contact*, and 5) *punctual* the population of one country is, Table 2.

Table 1. Warm vs. Cold communication styles to be measured as a part of the proposed ninth dimension.

Country	Touch (Non- -verbal)	Ges- tures (Non- -verbal)	Elaborate Both (Verbal & Non-verbal)	Perso- nal space (Non- -verbal)	Personal Both (Verbal & Non- -verbal)	Loud (Verbal)
the United States	√	√	×	√	V	√
the United Kingdom	×	×	×	√	×	×
Germany	×	×	×	V	×	×
Sweden	×	×	×	√	×	×
China	×	×	×	×	×	$\sqrt{}$
Italy	√	$\sqrt{}$	$\sqrt{}$	×	$\sqrt{}$	$\sqrt{}$
Russia	√	$\sqrt{}$	$\sqrt{}$	×	$\sqrt{}$	$\sqrt{}$
Japan	×	$\sqrt{}$	×	V	×	×
Serbia	×	×	$\sqrt{}$	V	$\sqrt{}$	$\sqrt{}$
North Macedonia	V	√	V	×	V	V

Direct

Emerson [40] maintains that *direct* means preferring no-frills communication, backed by hard facts, focusing on the end result, being intense and very blunt.

Feedback

As feedback is the process of evaluating, discussing and organizing an employee's performance, an action used to offer constructive information to a team member, one is the most efficient communicator if the feedback is timely. This implies offering it when the team member can take action to improve, either immediately or shortly after the event in question [41] and, we would say, not later than that. Therefore, *being quick to provide feedback* is of utmost importance for any kind of communication.

Clear

As Worthington [42] in her Forbes article states, *being clear* means being kind, since clear communication creates accountability, builds a positive, trusting environment, avoids confusion, and provides a guiding source of vision.

Eye contact

Eye contact is one of the easiest and most powerful ways to make a person feel recognized, understood and validated. It makes words and people more memorable, makes people more honest, increases self-awareness, creates and deepens attraction [43]. This characteristic, of being prone to making eye contact, is a crucial part of the communication process as eyes can tell a big part of the story which we want to share.

Punctuality

Being punctual – arriving on time – is very important in all walks of life; thus, by the way we view and appreciate our and the interlocutor's time, our communication style is being assessed.

Hence, Professional style scores high on all of these categories: *direct, quick to provide feedback, clear, prone to making eye contact* and *punctual, while* Casual is low on all of these elements.

Table 2. Professional vs. Casual communication styles to be measured as a part of the proposed ninth dimension.

Country	Direct Both (Verbal & Non-verbal)	Quick to provide feedback (Verbal)	Clear Both (Verbal & Non-verbal)	Eye contact (Non- -verbal)	Punctual Both (Verbal & Non-verbal)
the United States	\checkmark	$\sqrt{}$	V	$\sqrt{}$	\checkmark
the United Kingdom	×	$\sqrt{}$	×	$\sqrt{}$	\checkmark
Germany	√		√	$\sqrt{}$	V
Sweden	√		√	$\sqrt{}$	V
China	×		×	×	V
Italy	×	×	×	$\sqrt{}$	×
Russia	×	×	×	$\sqrt{}$	×
Japan	×		×	$\sqrt{}$	V
Serbia	×	×	×	$\sqrt{}$	×
North Macedonia	×	×	×	V	×

RESEARCH METHODOLOGY

The main goal of the research is to investigate the communication styles among different cultures and provide evidence of how they differ based on different parts of the world.

The subject of analysis in our research are randomly selected respondents from 10 different cultures: Germany, Sweden, Japan, China, Russia, Italy, the United States, the United Kingdom, Serbia and North Macedonia. For this reason, a questionnaire was created and adapted to fit the purposes of this research. Part of the questions (from number 5 to 9 and from number 11 to 15) were taken from Richmond et al. [44], whose questionnaire was used as a starting point, to which Bojadjiev and Vaneva added their own statements. In total, the questionnaire consists of 24 questions, which the respondents could complete with one of the answers offered on a 6-point Likert scale (1 – never, ..., 6 – always), and 4 questions dedicated to the demographic profiles of the respondents. (The whole questionnaire is given in Appendix A).

Prior to distributing the questionnaire, a pilot testing was conducted in order to examine the validity of each question. Then the questionnaire was emailed to potential respondents who were randomly selected, and the survey was conducted electronically, using the Microsoft Forms web service.

The sample consists of at least 50 respondents per culture, among which 71 % were females and 29 % were males, while most of them were aged between 20-30 years (35 %), followed by 41-50 aged (25 %), 31-40 years (23 %) and those older than 50 (18 %).

In order to identify differences (or similarities) in communication styles across selected countries, and how many factors are needed to explain these common themes, a factor analysis is conducted. After the identifications of the two factors (Warm vs Cold, Professional vs Casual), in order to check the internal consistency of the questions in each factor, Cronbach's Alpha analysis was used, which showed that all the questions answered in each of these two factors are consistent. Moreover, ANOVA was used to show that there is a difference among the countries in relation

to the factors. Numeric details of the ANOVA analysis are presented in Appendices B and C. And lastly, since there is a difference, the authors classify and group the countries.

RESULTS AND DISCUSSION

The main aim of this article is to propose an additional dimension to Hofstede's model of national culture and, this time, the authors propose a dimension of communication as they believe that communication styles differ among cultures.

Factor analysis

The factor analysis was used to explain to which extent each question from the questionnaire is associated with a common factor. This analysis identified two main factors: Professional vs Casual and Warm vs Cold communication culture. In Table 3, questions associated with relevant factors are presented.

Table 3. Questions associated with identified factors.

Factor 1 (Cold vs Warm)	Factor 2 (Casual vs Professional)
Q5. I use my hands and arms to gesture while talking to people. Q6. I touch others on the shoulder or arm while talking to them. Q9. I move closer to people when I talk to them. Q12. I avoid touching people when I talk to them. Q13. I avoid gesturing while I am talking to people. Q14. I frown or smile while talking to people. Q15. I try not to sit or stand close to people when I talk with them. Q17. I speak loudly whenever I get into conversation. Q22. In communication, I value emotional language and connection. Q23. I am quiet when talking with people. Q27. I tend to keep my expression short. Q28. Regardless of the message I need to convey, I try to be impersonal.	Q7. I maintain eye contact with people when I talk to them. Q10. I tend to be on time for any appointment I have. Q11. I look over or away from others while talking to them. Q19. I give feedback within 24 hours. Q20. I tend to keep my messages clear. Q21. Instead of sugarcoating, I prefer telling people directly what I mean. Q24. I give myself time and reply within 3 to 5 days. Q26. Clarity of the message is not the first thing I go to.

Running the Cronbach's Alpha test proved internal consistency of the questionnaire regarding the identified factors with score of 0,717 for factor 1 (Cold vs Warm) and 0,769 for factor 2 (Professional vs Casual). The descriptive statistics at the summary level for each factor is presented in Table 4, while for each country individually in Table 5.

Comparing countries by how *direct*, *quick to provide feedback*, *clear*, *prone to making eye contact* and *punctual* one country is, reveals that Serbia, North Macedonia and Germany are significantly different from the rest of the countries included in the research (see Appendix C). What is more, not many countries share similarities regarding this factor compared with the rest of the countries in the research.

Table 6 presents the factor value of countries and their ranking according to Factor 1, from Cold to Warm, and Factor 2, from Casual to Professional. Countries are ranked according to factor values.

Table 4. Descriptive statistics at the summary level for each factor

	N	Min.	Max.	Mean	Std. Dev.
Factor_1 (Warm vs Cold)	648	1,33	5,58	3,6623	0,62025
Factor_2 (Professional vs Casual)	648	2,75	6,00	4,5143	0,64867

Table 5. Descriptive statistics at country level for each factor.

•		Min.	Max.	Mean	Std. Dev.
UK	Factor_1	2,08	5,17	3,8708	0,57956
UK	Factor_2	3,00	5,38	4,2971	0,49867
US	Factor_1	2,08	5,58	3,9094	0,63758
03	Factor_2	3,00	5,63	4,3766	0,55243
Sweden	Factor_1	1,83	4,67	3,0273	0,55242
Sweden	Factor_2	2,88	5,63	4,1918	0,52316
Serbia	Factor_1	2,33	5,00	3,8660	0,64076
Serbia	Factor_2	3,00	5,88	4,8897	0,62332
Russia	Factor_1	2,58	4,92	3,7610	0,52299
Russia	Factor_2	2,75	5,50	4,4505	0,61743
North Macedonia	Factor_1	2,50	5,00	3,7388	0,54060
North Macedonia	Factor_2	3,13	6,00	4,8771	0,60256
lonon	Factor_1	2,67	4,08	3,4565	0,33131
Japan	Factor_2	3,25	4,75	4,0489	0,42262
ltoly	Factor_1	2,58	5,08	3,7833	0,57726
Italy	Factor_2	3,13	6,00	4,5659	0,63777
Gormany	Factor_1	1,33	4,83	3,4292	0,74911
Germany	Factor_2	3,63	5,88	4,9125	0,55345
China	Factor_1	2,50	4,50	3,5375	0,40433
Cillia	Factor_2	3,00	5,63	4,1359	0,61211

Table 6. The countries' values of Factor 1 and Factor 2.

Country	Factor 1		Country	Factor 2	
Sweden	3,027300	Cold	Japan	4,048900	Casual
Germany	3,429200		China	4,135900	
Japan	3,456500		Sweden	4,191800	
China	3,537500		UK	4,297100	
Mean	3,662300		US	4,376600	
North Macedonia	3,738800		Russia	4,450500	
Russia	3,761000		Mean	4,514300	
Italy	3,783300		Italy	4,565900	
Serbia	3,866000		North Macedonia	4,871100	
UK	3,870800		Serbia	4,889700	
US	3,909400	Warm	Germany	4,912500	Professional

Finally, both factors were combined to classify the countries by their style of communication, and that leads us to the countries' distribution in Figure 2. There are 2 axes in this figure: X, the horizontal one, represents factor 1 (Cold-Warm), while the Y, the vertical one, stands for factor 2 (Professional-Casual).

If the mean value for factor 1 is 3,662300, and for factor 2 is 4,514300, by comparing each country's value with the mean and by interpreting the countries' distribution, this is what we come to: Germany is extremely professional, with a value of 4,912500, while it is moderately cold, with a value of 3,429200. Staying on the Professional-Casual axis, we see that Sweden is

moderately casual, with a value of 4,191800, but extremely cold, with a value of 3,027300. The Casual-Cold quadrant shows that Japan is extremely casual, with 4,048900, but moderately cold, with 3,456500, which is a lot warmer than Sweden, and just a bit warmer than Germany. When it comes to China, it is less casual than Japan but more casual than Sweden, and warmer than all previously analyzed countries: Germany, Sweden and Japan. China scores 4,135900 on casual and 3,537500 on cold.

Moving to the second vertical half of the graph, we see that Italy is the least professional country and moderately warm. Its values are 4,565900 on casual and 3,783300 on warm. North Macedonia is very professional (4.871100), less professional than Germany, though, which is in that group, and moderately warm (3,738800). Serbia is extremely professional (4,889700), more than North Macedonia, however, less than Germany, and moderately warm (3,866000). Russia is the least casual of all countries (4,450500), almost bordering with professional, and it is moderately warm (3,761000). The US is the warmest country of all (3,909400) and moderately casual (4,376600), more casual than Russia, while the UK is more casual than the US (4,297100), but less warm than the US (3,870800).

Commenting on the parts of the dimensions and their extreme values in countries, as far as professionalism is concerned, Germany ranks the highest, being the most professional, while Japan is the most casual; thus, the least professional of all.

The horizontal, Cold-Warm axis leads us to the conclusion that Sweden is the coldest, and the US is the warmest country.

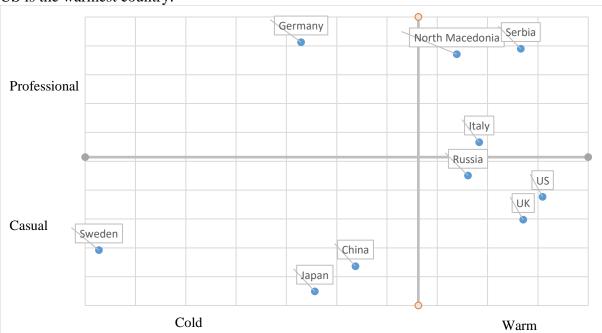


Figure 2. Distribution of countries according to factor 1 (Cold-Warm) and factor 2 (Professional-Casual).

The evidence provided in figure 2 is in line with Lanier [45] that Canada; the northern states of the US; Northern Europe; Israel; the countries that were settled by Europeans, including New Zealand, Australia, Brazil, Argentina, and South Africa are considered to be cold countries. Unsurprisingly, the cold communication style is present in the "cold temperature" cultures. People belonging to these cultures usually avoid touching others and gesturing while talking with others. However, they appreciate being impersonal and closer to the interlocutors.

On the other hand, according to Ting-Toomey and Chung [46], the communication casualty level is mostly affected by the level of power distance in each culture, where power distance is

defined as "the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally" [18]. Consequently, the communication style is influenced by culture, which may be measured not only through Hofstede's model, but also by the level of cultural affectiveness, meaning that affective cultures tend to share their emotions, while neutral cultures value keeping their emotions under check when interacting. Besides that, the communication style of a particular culture also differs based on whether a specific culture relies more on their social resources or skills.

Because culture affects communication, different aspects such as: beliefs, habits, values and norms, customs influence communication. The more similar they are, the easier the communication between the interlocutors is. The geography, climate, and history of a nation all influence its culture. Language, communication techniques, and beliefs are just a few examples of how these elements may have an impact on culture.

Anova analysis

After identifying the factors and checking the internal consistency of the questions related to the identified factors, ANOVA test was conducted in order to investigate differences between the means of the factors in the selected countries. The differences of each country compared to the other countries from the data set regarding factor 1 (Warm vs Cold) are presented in Appendix B, while differences of each country regarding factor 2 (Casual vs Professional) are presented in Appendix C. These tables reveal that, when countries are compared by the degree to which people belonging to a specific culture use expression, emotion, and empathy while communicating, Germany and Sweden are different from most of the countries in the data set, while Russia, Japan, Italy and North Macedonia have different communication styles from one to two countries in the data set, respectfully. The pairs of countries which are different against each other at statistical level of minimum 5 % for factor 1 (Cold vs Warm) are presented in Table 7, while Table 8 presents the same for factor 2 (Casual vs Professional).

CONCLUSION

In this article, numerous significant cultural trends have been studied and communication styles pertinent to ten different nations have been discussed. Namely, as the main goal of the research was to investigate the communication styles among different cultures and provide evidence of how they differ based on different parts of the world, randomly selected respondents from ten different cultures: Germany, Sweden, Japan, China, Russia, Italy, the United States, the United Kingdom, Serbia and North Macedonia filled out a 24-item questionnaire with answers on a 6-point Likert scale. The sample consists of at least 50 respondents per culture, among which 71 % were females and 29 % were males, with most of them aged between 20-30 years (35 %), and the smallest portion (18 %) consisting of those older than 50. Upon identifying two factors (Warm vs Cold, Professional vs Casual), a factor analysis was conducted, and in order to check the internal consistency of the questions in each factor, Cronbach's Alpha analysis was used, which showed that all the questions answered in each of these two factors are consistent. Moreover, ANOVA was used to show that there is a difference among the countries in relation to the factors.

Since a difference does exist, we classify and group the countries. When countries are compared by the degree to which people belonging to a specific culture use expression, emotion, and empathy while communicating, Germany and Sweden are different from most of the countries in the data set, while Russia, Japan, Italy and North Macedonia have different communication styles from one to two countries in the data set, respectfully. Comparing countries by how *direct*, *quick to provide feedback*, *clear*, *prone to making eye contact* and

Table 7. The pairs of countries which are different against each other at statistical level of minimum 5 % for factor 1 (Cold vs Warm).

(I) Country	(J) Country		
(i) Country	Sweden		
UK	Germany		
	China		
	Sweden		
<u> </u>	Japan		
US	Germany		
	China		
	UK		
	US		
	Serbia		
	Russia		
Sweden	North Macedonia		
	Italy		
	Germany		
	China		
	Sweden		
Serbia	Germany		
	China		
Russia	Sweden		
North Macedonia	Sweden		
North Macedonia	Germany		
Japan	US		
Italy	Sweden		
italy	Germany		
	UK		
	US		
Germany	Sweden		
Germany	Serbia		
	North Macedonia		
	Italy		
	UK		
China	US		
	Serbia		

Table 8. The pairs of countries which are different against each other at statistical level of minimum 5 % for factor 2 (Casual vs Professional) (continued on p.483).

(I) Country	(J) Country
	Serbia
UK	North Macedonia
	Germany
	Serbia
US	North Macedonia
	Germany
	Serbia
Sweden	North Macedonia
Sweden	Italy
	Germany

Table 8. The pairs of countries which are different against each other at statistical level of minimum 5 % for factor 2 (Casual vs Professional) (continuation from p.482).

minimum 3 % for facto	1 2 (Casual vs 1 loles	
	UK	
	US	
Serbia	Sweden	
Serbia	Russia	
	Japan	
	China	
	Serbia	
Russia	North Macedonia	
	Germany	
	UK	
	US	
North Macedonia	Sweden	
	Russia	
	Japan	
	Italy	
	China	
	Serbia	
lanan	North Macedonia	
Japan	Italy	
	Germany	
	Sweden	
	North Macedonia	
Italy	Japan	
	Germany	
	China	
	UK	
	US	
	Sweden	
Germany	Russia	
	Japan	
	Italy	
	China	
	Serbia	
China	North Macedonia	
	Italy	
	Germany	
	•	

punctual one country is, it is revealed that Serbia, North Macedonia and Germany are significantly different from the rest of the countries included in the research. What is more, not many countries share similarities regarding this factor compared with the rest of the countries in the research. Germany is extremely professional, but moderately cold, while Sweden is moderately casual, but extremely cold. Japan is extremely casual, and moderately cold, which is a lot warmer than Sweden, and just a bit warmer than Germany. China is less casual than Japan but more casual than Sweden, and warmer than all previously analyzed countries: Germany, Sweden and Japan. Italy is the least professional country and moderately warm, North Macedonia is very professional – although less professional than Germany, which is in that group, and moderately warm. Serbia is extremely professional, more than North

Macedonia, but less than Germany, and moderately warm. Russia is the least casual of all countries, almost professional, and it is moderately warm. The US is the warmest country of all and moderately casual, more casual than Russia, while the UK is more casual than the US, but less warm than the US. Out of all countries, Germany is the most professional, while Japan is the most casual; thus, the least professional of all, while Sweden is the coldest, and the US is the warmest country.

As far as previous research on the topic of communication across cultures is concerned, it always revolves around Hofstede, his definition of culture and the distinction of cultural dimensions. That is what Grèzes [47] does – he cites Hofstede's work from 2001 [18] and, among other definitions, maintains that different cultures rely on different values, and the culture is not innate but acquired by the subjects. Rew et al. [48] define cultural awareness as "learning to work with people from diverse cultural backgrounds, using interpersonal communication, relationship skills, and behavioral flexibility." This aspect is very important at both personal and management level since both our everyday, non-work activities and business dealings are shaped by our culture, which impacts the way we communicate.

When talking about communication styles, especially about the direct one, Park et.al. [49] claim that people in different cultures have different preferences in the way they communicate with others. Compared to Koreans, Americans have been found to be more likely to rate direct statements as effective in making a request [50, 51]. Hong Kong Chinese migrants in the Australian workplace noted that Australians were more direct in communication than they were [52], while Russians and Japanese used more indirect communication strategies than Americans did when negotiating with others as Adair et al. [53] say. Similar to this, Indians preferred indirect communication more strongly than Americans [54].

Gudykunst et al [55] note that when comparing Koreans with Americans no cultural differences were evident in indirect communication. When making a request, both Koreans and Americans rated direct statements as the least likely strategy to use [51]. In [56], a study with Koreans is discussed, which showed that open and clear communication had a positive influence on organizational commitment and job satisfaction. As far as the Chinese are concerned, research shows that they preferred direct persuasion appeals [57], and a direct communication style in business communication [58].

However, according to Park et.al. [49], a culture-level value such as individualism—collectivism is probably not the only reason for variation in direct communication style preferences. Individuals within the same culture have varying reasons for direct communication style preferences. For example, differences in personality, self-esteem, and/or stress make people use particular communication styles consistently regardless of the referent groups such as partners, friends, and coworkers [59]. The relationship between individual-level independent variables and direct communication style may not be the same across different cultures. Possibly, cultures can differ in the reasons important for being direct when communicating with others. For example, politeness can be a reason for not being direct when communicating with others in one culture, but expressing relational closeness can be a reason for being direct in another culture [60, 61]. In [62], Kim et al. observed Australians' and Koreans' communication styles in their intercultural exchanges and found that Australians believed explicit and direct messages facilitated effective communication while Koreans thought that unconstrained and explicit communication in e-mails could threaten face and be impolite to others, thus being ineffective.

Learning about the typical communication styles of the researched countries, and positioning each country in terms of its professional/casual and warm/cold factors, the study will hopefully inform the readers how to adequately approach these cultures, how to correctly interpret their

communication, how to address them and ensure their messages are properly understood, that is, give us all better insight into the communication style we should adopt when communicating with a certain country's national.

We tried to conduct thorough research and approach the subject matter from as many angles as possible, but we are aware that there may be some limitations. One limitation, which may not be the only, is the fact that we have not included any countries from the African continent, that is, there are six European countries, two Asian countries, one country spanning on both Europe and Asia, and one American country. Further research can be done with African countries, and since that variety of countries will enable us to make comparison and contrast among the different continents, the results will have far bigger implications on the countries' communication styles on a global, world level. When cross-cultural communication takes place, there are potential barriers: attitude, perception, stereotypes, interpretation, and culture shock. Yet, successful cross-cultural communicators are those who achieve communicative competence. And in order to gain competence, one should be aware of the impact of national culture, which is deeply rooted in how we "see things, say things and do things".

We hope that this article is significant since it proposes an additional dimension, which is as frequent and solid among cultures as it is deeply rooted in each culture. Therefore, the article recommends that the countries ought to both comprehend their national culture and utilize it as a "tool" for understanding other cultures as well.

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APPENDIX A

Table 9. Questionnaire utilized to investigate the communication styles.

Table 9. Questionnaire utilized to investigate the communication styles.
Section 1: Respondents' demographic data
Q1. Please choose the age group you belong to:
Q2. Please choose your gender:
Q3. Please choose your native country:
Q4. Please mark your level of education:
Section 2: Non-verbal aspects of communication
Q5. I use my hands and arms to gesture while talking to people.
Q6. I touch others on the shoulder or arm while talking to them.
Q7. I maintain eye contact with people when I talk to them.
Q8. I have a bland facial expression when I talk to people.
Q9. I move closer to people when I talk to them.
Q10. I tend to be on time for any appointment I have.
Q11. I look over or away from others while talking to them.
Q12. I avoid touching people when I talk to them.
Q13. I avoid gesturing while I am talking to people.
Q14. I frown or smile while talking to people.
Q15. I try not to sit or stand close to people when I talk with them.
Q16. Time is not what I pay most attention to.
Section 3: Verbal aspects of communication
Q17. I speak loudly whenever I get into conversation.
Q18. I tend to give lengthy explanations to make sure the interlocutor understands me.
Q19. I give feedback within 24 hours.
Q20. I tend to keep my messages clear.
Q21. Instead of sugarcoating, I prefer telling people directly what I mean.
Q22. In communication, I value emotional language and connection.
Q23. I am quiet when talking with people.
Q24. I give myself time and reply within 3 to 5 days.
Q25. I 'dress' my expression and subtly address people.
Q26. Clarity of the message is not the first thing I go to.
Q27. I tend to keep my expression short.
Q28. Regardless of the message I need to convey, I try to be impersonal.

APPENDIX B

ANOVA for Factor 1 (Warm vs Cold).

Table 10. Leven test of homogeneity of variances of Factor 1 (Warm vs Cold).

Levene Statistic	df1	df2	Sig.
3,793	9	638	0,125

Table 11. Tukey HSD post-hoc analysis of Factor 1 (Warm vs Cold) (continued on p.491).

(I) Country	(J) Country	Mean Difference (I-J)	Std. Error	Sig.
	US	-0,039	0,094	1,000
	Sweden	0,843	0,102	0,000***
	Serbia	0,005	0,105	1,000
	Russia	0,110	0,104	0,989
UK	North Macedonia	0,132	0,086	0,881
	Japan	0,414	0,137	0,080
	Italy	0,087	0,103	0,998
	Germany	0,442	0,101	0,001***
	China	0,333	0,094	0,015**
	UK	0,039	0,094	1,000
	Sweden	0,882	0,098	0,000***
	Serbia	0,043	0,102	1,000
	Russia	0,148	0,101	0,905
USA	North Macedonia	0,171	0,083	0,552
	Japan	0,453	0,135	0,029**
	Italy	0,126	0,100	0,962
	Germany	0,480	0,098	0,000***
	China	0,372	0,090	0,002***
	UK	-0,843	0,102	0,000***
	USA	-0,882	0,098	0,000***
	Serbia	-0,839	0,110	0,000***
	Russia	-0,734	0,109	0,000***
Sweden	North Macedonia	-0,712	0,091	0,000***
	Japan	-0,429	0,141	0,072
	Italy	-0,756	0,107	0,000***
	Germany	-0,402	0,105	0,006***
	China	-0,510	0,098	0,000***
	UK	-0,005	0,105	1,000
	USA	-0,043	0,102	1,000
	Sweden	0,839	0,110	0,000***
	Russia	0,105	0,112	0,995
Serbia	North Macedonia	0,127	0,096	0,946
	Japan	0,409	0,143	0,121
	Italy	0,083	0,111	0,999
	Germany	0,437	0,109	0,003***
	China	0,329	0,102	0,045**
	UK	-0,110	0,104	0,989
	USA	-0,148	0,101	0,905
.	Sweden	0,734	0,109	0,000***
Russia	Serbia	-0,105	0,112	0,995
	North Macedonia	0,022	0,094	1,000
	Japan	0,304	0,143	0,503

Table 11. Tukey HSD post-hoc analysis of Factor 1 (Warm vs Cold) (continuation from p.490).

bio i ii i ukey	Italy	-0,022	0,110	1,000
Russia	Germany	0,332	0,110	0,065
Russia	China	0,332	0,108	0,003
	UK	-0,132	0,086	0,431
	USA	-0,132 -0,171	0,083	0,552
	Sweden	0,712	0,083	0,000***
	Serbia	-0,127	0,091	0,946
North	Russia	-0.127 -0.022	0,094	1,000
Macedonia	Japan	0,282	0,130	0,478
	Italy	-0,045	0,093	1,000
	Germany	0,310	0,090	0,023**
	China	0,201	0,083	0,305
	UK	-0,414	0,083	0,303
	USA	-0,414 -0,453	0,137	0,080
	Sweden	0,429		
			0,141	0,072
Iome:-	Serbia	<u>-0,409</u>	0,143	0,121
Japan	Russia	-0,304	0,143	0,503
	North Macedonia	-0,282	0,130	0,478
	Italy	<u>-0,327</u>	0,142	0,387
	Germany	0,027	0,140	1,000
	China	-0,081	0,135	1,000
	UK	<u>-0,087</u>	0,103	0,998
	USA	<u>-0,126</u>	0,100	0,962
	Sweden	0,756	0,107	0,000***
	Serbia	-0,083	0,111	0,999
Italy	Russia	0,022	0,110	1,000
	North Macedonia	0,045	0,093	1,000
	Japan	0,327	0,142	0,387
	Germany	0,354	0,107	0,032**
	China	0,246	0,100	0,294
	UK	-0,442	0,101	0,001***
	USA	-0,480	0,098	0,000***
	Sweden	0,402	0,105	0,006***
	Serbia	-0,437	0,109	0,003***
Germany	Russia	-0,332	0,108	0,065*
	North Macedonia	-0,310	0,090	0,023**
	Japan	-0,027	0,140	1,000
	Italy	-0,354	0,107	0,032**
	China	-0,108	0,098	0,984
China	UK	-0,333	0,094	0,015**
	USA	-0,372	0,090	0,002***
	Sweden	0,510	0,098	0,000***
	Serbia	-0,329	0,102	0,045**
	Russia	-0,224	0,101	0,451
	North Macedonia	-0,201	0,083	0,305
	Japan	0,081	0,135	1,000
	Italy	-0,246	0,100	0,294
	Germany	0,108	0,098	0,984

^{***}the mean difference is significant at the 1 %

**the mean difference is significant at the 5 %

Table 12. Anova analysis for Factor 1 (Warm vs Cold).

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	40,885	9	4,543	13,933	0,000***
Within Groups	208,019	638	0,326		
Total	248,904	647			

^{***}statistically significant at 1 %

APPENDIX C

Table 13. Leven test of homogeneity of variances of Factor 2 (Professional vs Casual).

Levene Statistic	df1	df2	Sig.
1,195	9	638	0,295

Table 14. Anova analysis for Factor 2 (Professional vs Casual)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	59,966	9	6,663	20,025	0,000***
Within Groups	212,277	638	0,333		
Total	272,243	647			

^{***}statistically significant at 1 %

Table 15. Tukey HSD post-hoc analysis of Factor 2 (Professional vs Casual) (continued on pp.493-494).

(I) Country	(J) Country	Mean Difference (I-J)	Std. Error	Sig.
	US	-0,079	0,095	0,998
	Sweden	0,105	0,103	0,991
	Serbia	-0,593	0,107	0,000***
	Russia	-0,153	0,105	0,909
UK	North Macedonia	-0,580	0,087	0,000***
	Japan	0,248	0,139	0,743
	Italy	-0,269	0,104	0,230
	Germany	-0,615	0,102	0,000***
	China	0,161	0,095	0,795
	UK	0,079	0,095	0,998
	Sweden	0,185	0,099	0,698
	Serbia	-0,513	0,103	0,000***
	Russia	-0,074	0,102	0,999
US	North Macedonia	-0,501	0,083	0,000***
	Japan	0,328	0,136	0,327
	Italy	-0,189	0,101	0,687
	Germany	-0,536	0,099	0,000***
	China	0,241	0,091	0,202
	UK	-0,105	0,103	0,991
	US	-0,185	0,099	0,698
Sweden	Serbia	-0,698	0,111	0,000***
	Russia	-0,259	0,110	0,352
	North Macedonia	-0,685	0,092	0,000***
	Japan	0,143	0,142	0,992
	Italy	-0,374	0,109	0,021**

Table 15. Tukey HSD post-hoc analysis of Factor 2 (Professional vs Casual) (continuation from p.492, continued on p.494).

	tinued on p.494). Germany	-0,721	0,106	0,000***
Sweden	China	0,056	0,099	1,000
	UK	0,593	0,107	0,000***
	US	0,513	0,107	0,000***
	Sweden	0,698	0,103	0,000***
	Russia	0,439	0,111	0,000***
Cambia	-			1,000
Serbia	North Macedonia	0,013	0,097	0.000***
	Japan	0,841	0,145	- 9
	Italy	0,324	0,112	0,111
	Germany	<u>-0,023</u>	0,110	1,000
	China	0,754	0,103	0,000***
	UK	0,153	0,105	0,909
	US	0,074	0,102	0,999
	Sweden	0,259	0,110	0,352
	Serbia	-0,439	0,113	0,004***
Russia	North Macedonia	-0,427	0,095	0,000***
	Japan	0,402	0,144	0,143
	Italy	-0,115	0,111	0,990
	Germany	-0,462	0,109	0,001***
	China	0,315	0,102	0,066*
	UK	0,580	0,087	0,000***
	US	0,501	0,083	0,000***
	Sweden	0,685	0,092	0,000***
North	Serbia	-0,013	0,097	1,000
	Russia	0,427	0,095	0,000***
Macedonia	Japan	0,828	0,131	0,000***
	Italy	0,311	0,094	0,033**
	Germany	-0,035	0,091	1,000
	China	0,741	0,083	0,000***
	UK	-0,248	0,139	0,743
	US	-0,328	0,136	0,327
	Sweden	-0,143	0,142	0,992
	Serbia	-0,841	0,145	0,000***
Japan	Russia	-0,402	0,144	0,143
r	North Macedonia	-0,828	0,131	0,000***
	Italy	-0,517	0,143	0,012**
	Germany	-0,864	0,141	0,000***
	China	-0,087	0,136	1,000
Italy	UK	0,269	0,104	0,230
	US	0,189	0,104	0,687
	Sweden	0,374	0,109	0,021**
	Serbia	-0,324	0,112	0,021
	Russia	0,115	0,112	0,111
	North Macedonia	-0,311	0,094	0,990
		0,517	0,094	0,033***
	Japan	,	· · · · · · · · · · · · · · · · · · ·	0,012**
	Germany	<u>-0,347</u>	0,108	
	China	0,430	0,101	0,001***

Table 15. Tukey HSD post-hoc analysis of Factor 2 (Professional vs Casual) (continuation

from pp.492-493).

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	UK	0,615	0,102	0,000***
	US	0,536	0,099	0,000***
	Sweden	0,721	0,106	0,000***
	Serbia	0,023	0,110	1,000
Germany	Russia	0,462	0,109	0,001***
	North Macedonia	0,035	0,091	1,000
	Japan	0,864	0,141	0,000***
	Italy	0,347	0,108	0,044**
	China	0,777	0,099	0,000***
	UK	-0,161	0,095	0,795
	US	-0,241	0,091	0,202
	Sweden	-0,056	0,099	1,000
	Serbia	-0,754	0,103	0,000***
China	Russia	-0,315	0,102	0,066*
	North Macedonia	-0,741	0,083	0,000***
	Japan	0,087	0,136	1,000
	Italy	-0,430	0,101	0,001***
	Germany	-0,777	0,099	0,000***

^{***}the mean difference is significant at the 1 %
**the mean difference is significant at the 5 %