

CULTURAL DIMENSION OF INDIVIDUALISM AND COLLECTIVISM AND ITS PERCEPTUAL AND COGNITIVE CORRELATES IN CROSS-CULTURAL RESEARCH

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ABSTRACT

This paper reviews the current findings on the dimension of individualism/collectivism, which might be a useful tool for the comparison of different cultures and for the investigation of the effect of culture as a psychological concept on individual mental processes. The validity and reliability of the concept of the dimension of individualism/collectivism is discussed. The related theory of analytic and holistic thinking is introduced within a framework of extensive comparative research in the field of cross-cultural psychology. Several interesting research designs on cross-cultural differences in cognition and perception are described. The empirical part contains a short report of research conducted on a sample (N=92) of Czech and Czech Vietnamese university students using a scale of horizontal and vertical individualism/collectivism (Bartoš, 2010). The results do not fully support the traditional view of individualistic Europeans and collectivistic Asians.

Keywords: individualism, collectivism, holistic thinking, analytic thinking, culture

INTRODUCTION

The beginning of psychological research on the influence of culture on the behavior and mental processes of an individual can be tracked back to the origins of psychology as a scientific discipline. On the basis of principles of cultural relativism that states that mental contents and processes are determined by the time and space in which a particular individual is living (Kitayama & Cohen, 2010, pp. 60-61), so called "*Völkerpsychologie*" was developing in the second half of the nineteenth century. The *Völkerpsychologie* focused primarily on the analysis of collective psychological phenomena that influence the "*Volksggeist*" (Steinthal, 1858; can be translated as „*spirit of the people*,” or „*national character*”), like the language, the myths or the religion. The *Völkerpsychologie* identified the culture with the nation that was at the time defined by common language.

Tylor's (1889) research on the forms of cohabitation and mutual avoidance in families can be considered the first true cross-cultural research (comparison of a certain attribute across two or more cultures). Tylor (1871, p. 1) also created a relatively complex definition of a culture: "Culture... is that complex whole which includes knowledge, beliefs, arts, morals, law, customs, and any other capabilities and habits acquired by [a human] as a member of society." There is an interesting and continuing debate (Matsumoto & Yoo, 2006) about the proper psychological definition of the term "culture." Some of the many definitions of this complex term are summarized in the following texts (Kitayama & Cohen, 2010):

"Culture is shared understandings made manifest in act and artifact" (Redfield 1941).

„Culture is to society what memory is to individuals" (Kluckhohn, 1954)

„Culture is the human-made part of the environment" (Herskovits, 1955)

Triandis (Triandis, 1972) distinguishes objective culture, which is directly observable (artifacts, social structure, institutions), and subjective culture, which is constituted by mental representations (language, values and attitudes, expectations, social roles and norms, etc.).

Matsumoto (2006) synthesizes anthropological, psychological and sociological definitions of culture; he defines culture as a system of meanings and information that are shared within a particular social group and transferred from one generation to another.

THE PROBLEMS OF THE COMPARISON OF CULTURES

Cross-cultural psychology as an independent scientific discipline emerged around the beginning of the second half of the twentieth century. Early researches had a character of anthropological studies enriched with psychological methodology (Berry, Poortinga, Breugelmans, Chasiotis & Sam, 2012), and they had mostly a quasi-experimental research design, in which the cultural group is the independent variable and psychological variables are the dependent variables (Matsumoto & Yoo, 2006). The main research goal used to be the identification of differences in mental processes or behavior. Thematically the research was focused on differences in perception, cognition, emotions or social perception (overview in Deregowski, 1980; Segall, Dasen, Berry & Poortinga, 1990).

One problem typical for these early studies was the fact that it was empirically impossible to inscribe the potential differences in dependent variables between various cultural groups to the culture as to the source of these differences because of the non-sufficient operationalization of the dependent variable (culture). Even if the culture was the source of the differences it was not clear which cultural variables cause the difference and why (Matsumoto & Yoo, 2006).

One of the possible solutions of the above-mentioned problem is offered by the **dimensional approaches** to culture, which became very popular in cross-cultural research because of their comprehensibility and relative simplicity (overview in Chudzikowski, Fink, Mayrhofer, Minkov & Hofstede, 2011; Schwartz, 1999; Smith, Dugan & Trompenaars, 1996). Dimensional approaches try to explain the cultural

variability through the identification of key dimensions of culture. Culture is conceptualized as a complex multidimensional structure. Triandis (1996) introduced the concept of cultural syndromes that are defined as specific patterns of psychological variables, which are typical for a certain cultural group (defined by the language, geographical region, etc.). In dimensional models of culture it is assumed that it is possible to quantify the influence of sociocultural context on a psyche of a member of a certain cultural group by calculating an average score of particular dimensions of culture (Kitayama & Cohen, 2010, p. 14). The characteristics of cultures are thus measured and compared by the measurement and the comparison of the scores.

HOFSTEDE'S DIMENSIONS OF NATIONAL CULTURES

Geert Hofstede was a pioneer of the dimensional approach in the 1970s and 1980s who conducted research on work-related values with cca 88.000 IBM employees in more than 40 countries (Hofstede 1980; as cited in Matsumoto & Yoo, 2006). After numerous subsequent researches the total size of his research sample was over 117.000 employees of IBM employees from 72 countries (Hofstede 2001; as cited in Matsumoto & Yoo, 2006). On the basis of factor and analysis (and subsequent theoretical considerations) he defined four dimensions of culture: individualism, masculinity, power distance and uncertainty avoidance (Smith, Dugan & Trompenaars, 1996). Later, the original 4-dimensional model was extended by two more dimensions: long term orientation (Bond, 1988) and indulgence vs. restraint (Minkov & Hofstede, 2010).

The dimension of individualism (collectivism) is considered to be one of the most useful and most intensively investigated constructs in the field of cross-cultural psychology (Schimmack, Oishi & Diener, 2005) and Hofstede's theory of dimensions of national cultures represents a useful tool to structure and measure the nature of various cultures (Bond, 2002). One pole of the bipolar continuous dimension is "*Individualism*" (numerical value 100; in the further text labeled as IND), which is defined as a complex behavior motivated by an individual's interest in his or her own (or his or her immediate social surroundings like a family or a partner) profit on the expenses of other social groups (neighbors, nation, stat). Second pole of the dimension - "*Collectivism*" (numerical value 0; in the further text labeled as COL) is traditionally interpreted as a behavior based on the interest of broader social surroundings and care of the traditions and values of society. This dimension can be generally defined as a quality of relationship between an individual and his or her social surroundings (Hofstede, 1983).

Hofstede's model of culture has had to face various critiques since its publication. The criticism focused on the research sample composition (Voronov & Singer, 2002); the theoretical validity of the concept and an excessive reliance on factor analysis, and construction of the scales and scale reliability (Kitayama & Cohen, 2010, p. 141).

IND/COL DIMENSION BY H. TRIANDIS

The second approach to IND/COL dimension that will be mentioned here is Triandis's approach (see: Triandis & Gelfand, 1998; Triandis, 1996; Singelis, Triandis, Bhawuk & Gelfand, 1995). Triandis and his colleagues developed new tools for the measurement of IND/COL that measure not the national but the individual level of IND/COL (Schimmack, Oishi & Diener, 2005). At the national level Triandis (Triandis, Leung, Villareal & Clack, 1985) used Hofstede's original terminology (IND/COL), at the individual level he suggested the usage of terms *allocentrism* (from Greek preposition "allo-" meaning "other" or "different") and *idiocentrism* (Greek "idio-" meaning "own" or "personal") or allocentric or idiocentric tendencies. While individuals with allocentric tendencies place emphasis on the values such as cooperation with others, equality and honesty, individuals with idiocentric tendencies emphasize social recognition, competition and hedonism, they have relatively higher work motivation and are more lonely, alienated and anomic (Triandis, Leung, Villareal & Clack, 1985). The terms allo- and idiocentrism were not widely recognized in the scientific community (Berry, Poortinga, Breugelmans, Chasiotis & Sam, 2012) and even Triandis (e. g. 2001) later abandoned these constructs.

Triandis (Singelis, Triandis, Bhawuk, & Gelfand, 1995) redefined the concept of IND/COL from the original bipolar dimension to multiple orthogonal dimensions. There were two types of both IND and COL distinguished and thus Triandis operated with four dimensions: horizontal IND (HI), vertical IND (VI), horizontal COL (HC) and vertical COL (VC). The horizontal dimension refers to the individuals' emphasis equality (e. g. Australians, Swedish or Israelis from *kibuc*), while the vertical dimension refers to the emphasis on hierarchy and social status (USA, India; see Triandis, 2001; Triandis & Gelfand, 1998). The horizontal and vertical dimensions of IND/COL are by their definition similar to Hofstede's power distance. In the following table all four dimensions are summarized together with individual statements typical for respondents scoring high on the dimensions, examples of countries high on the dimensions and typical political systems within the countries.

Table 1: Horizontal individualism and collectivism

Dimension	Individualism	Collectivism
Vertical	(VI) "I take care of myself, I am different from the group, I want to achieve social respect and recognition." "I am the best." "Personal freedom is important for me." E.g.: USA Political system: capitalism	(VK) "I take care of my in-group, I am different from the group, I want to achieve the social respect and recognition." "I will accept the position with authority over others and I will obey other authorities." "Neither equality, nor freedom is important for me." E.g.: China, Korea Political system: traditional authoritarian societies, fascism, Stalinist communism

Horizontal	<p>(HI) "I take care of myself; I am different from other group members, social status is not important for me." "I want to do my own things." "Both freedom and equality are important to me." E.g.:Sweden, Australia Political system: social democracy</p>	<p>(HK) "I am like the others, group relations and goals are important." "I am like the others and that's why I cannot stand anyone giving me orders." "The goals are defined on the basis of decision of the group." "Equality is important to me." E.g.:Israeli kibuc Political system: communitarianism, Marxist idea of communism</p>
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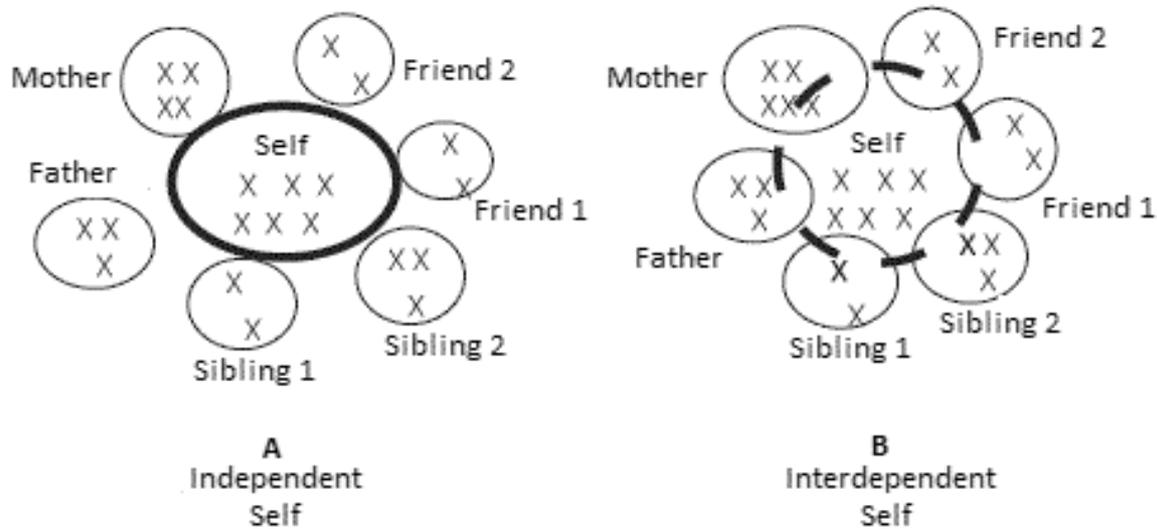
Source: Singelis, Triandis, Bhawuk, & Gelfand, 1995; Triandis & Gelfand, 1998 a Triandis, 2001.

INTERDEPENDENT AND INDEPENDENT SELF - BY MARKUS AND KITAYAMA

The theory of independent (INDS) and interdependent self (INTS) that was formed by Markus and Kitayama (1991) is based on Triandis' (e. g. 2001) theory of IND/COL, but differs from it in one important aspect. While in Triandis' approach the basic psychological processes of an individual are only modified by cultural influences, according to Markus and Kitayama the nature of the processes is different due to the influences of culture. This theory inspired many researches comparing differences in social behavior, cognition, emotion and motivation, typically between two specific cultural regions, "The East" (China, Korea, Japan) and "The West" (USA, Canada, Western Europe; Berry, Poortinga, Breugelmans, Chasiotis & Sam, 2012, p. 122; the line of research on cognition will be described in the next chapter).

INDS is typical for North American and Western European cultures. The normative imperative (goal) in these cultures is to be independent of others, which promotes formation of self-construal in such a way that behavior and mental life of an individual is organized and directed by an inner repertoire of thoughts, feelings and motives that are independent of the thoughts, feelings and motives of other people. It promotes genesis of needs like self-actualization, expression of one's own thoughts and feelings or development of one's own potential. The central feature of this type of self-construal is autonomy and independence (Markus & Kitayama, 1991).

INTS is typical for Africa, Southeast Asia, Latin America and Southern Europe; the normative imperative is to maintain mutual interdependence (usually with the members of in-group). Individuals with the interdependent self-construal perceive themselves as a part of an all-embracing network of social relationships. Their behavior is determined by the thoughts, feelings and motives of people they share close bonds with. Their self-construal is defined as an interdependent part of a bigger social, hierarchically structured entity.

Figure 1: Independent (A) and interdependent (B).

Source: adapted from Matsumoto (2000).

In figure 5 (left) the model of INDS is depicted. The Self is represented by the central ellipse that is distinctively separated from neighboring ellipses representing the important others. The broader line of the central ellipse demarcates mental contents (represented by "X's"; e. g. goals and skills of an individual), which are the most important for the definition of individual's self-construal. In figure 5 (right) the model of INTS is depicted. The Self is represented by the central ellipse, which has no solid boundaries; it is flexible and dependent on the context and it is intertwined with the surrounding ellipses – important others. The contents important for self-construal are from a large part determined by the relations to the important others (Matsumoto, 2000).

SUMMARY AND CRITIQUE OF THEORIES OF IND/COL

In the above text, the main theories of IND/COL were defined as a possibly useful tool for the comparison of cultures. In this chapter we will try to summarize the main principles of the theories and mention criticism of the IND/COL concept. The above mentioned theories of IND/COL are summarized in table 2. The third and fourth columns contain the terminology used for the descriptions of the dimensions by their authors at a cultural and an individual level. The fifth column contains the hypothesized mechanism of transmission of culture on an individual.

Lu and Gilmour (Lu and Gilmour, 2007) performed a synthesis of various approaches to the IND/COL dimension and identified in total 2*7 facets of IND/COL (INDS/INTS). The following facets of IND were identified: (a) independence, uniqueness and consistency, (b) expressing oneself, (c) realizing internal attributes, (d) promoting one's own goal, (e) being direct, (f) separation from in-group, and (g)

self-reliance and hedonism. The seven facets of COL are as follows: (h) belonging and fitting in, (i) occupying one's proper place, (j) engaging in appropriate action, (k) promoting others' goals, (l) being indirect in communication, (m) family integration, and (n) interdependence with sociability. On the basis of these factors they developed a 42-item scale IISS (Interdependent and IndependentSelf Scale).

Table 2: Comparison of IND/COL theories.

Theory	Dimension	Cultural level	Individual level	Transmission
Individualism/collectivism (Hofstede)	Ind Col —————	individualism	not measured	work-related values → IND/COL → (behavior and mental proc.)
Horizontal and vertical individualism and collectivism (Triandis, Singelis)	+ HC - ————— + HI - ————— + VC - ————— + VI - —————	individualism/collectivism	orig.allo- and idiocentrism, later horizontal and vertical IND/COL	IND/COL → allocentric/idiocentric tendencies → behavior and mental proc.
Interdependent and independent self (Markus, Kitayama)	+ INDS - ————— + INTS - —————	independent and interdependent social relations (≈ IND/COL)	interdependent and independent self-construal	IND/ INT socialrelations → INDS/INTS → behavior and mental proc.

Source: own work.

Although the concept of IND/COL seems to be logical and supported by many researches, since 2002 there have been some serious doubts about its validity and the reliability of its methods. In 2002 Oyserman (Oyserman, Coon & Kimmelmeier, 2002) conducted a meta-analysis of research. This paper caused a wave of criticism of IND/COL by other respectable cross-cultural psychologists (Bond, 2002; Fiske, 2002; Levine, et al., 2003).

The main prerequisite of the **theoretical validity** of IND/COL is that Easterners are collectivistic and Westerners are individualistic; furthermore the constructs should be stable through time and situation (Levine, et al., 2003). The results of studies that are using priming to manipulate with IND/COL as with an independent variable (e. g. Oyserman & Lee, 2008; Gardner, Gabriel & Lee, 1999) suggest that it is possible to prime individualistic or collectivistic tendencies by e. g. individualistically or collectivistically tinged stories. Priming collectivism to individuals from the USA caused them to have higher scores of COL compared to IND; the opposite trend was reported by respondents from Hong-Kong primed for collectivism (Levine, et al., 2003). These results suggest that the concept of IND/COL might be highly sensitive to the situation of testing. In that case, IND/COL is not a stable construct; it reflects the situation more than the dispositional attributes. Additionally, there are doubts about the **concurrent** and **discriminatory validity**- replications of researches done by reliable scales produce diametrically different results; the results are dependent

on the scale used (Levine, et al., 2003; Bond M. , 2002; Fiske, 2002; Oyserman, Coon & Kemmelmeier, 2002). Some authors (Bond M. , 2002; Fiske, 2002) have suggested abandoning the self-report scales in cross-cultural research completely.

The other problem area with IND/COL is the issue of the **reliability** of self-reporting scales used in most of the relevant researches. Oyserman (Oyserman, Coon & Kemmelmeier, 2002) identified 27 self-reporting scales (11 measure IND/COL as a bipolar dimension, 16 as more orthogonal dimensions) that are all poorly validated, most of them have unsatisfactory psychometric characteristics; the factor structure of the scales doesn't correspond to the theoretical model of IND/COL (Levine, et al., 2003). The suitability of closed-format questions of IND/COL measurement methods is also widely discussed (Schimmack, Oishi & Diener, 2005; Bond M., 2002; Fiske, 2002).

CORRELATES OF IND/COL: HOLISTIC AND ANALYTIC COGNITIVE STYLE

Researches using the theory of the holistic/analytic cognitive style (HCS/ACS) are so far focused mainly on the comparison of highly developed regions of Southeast Asia (Japan, South Korea, China) and Western civilization (North America, Western Europe; see Kitayama & Cohen, 2010; Boduroglu, Shah & Nisbett, 2009; Uskul, Kitayama & Nisbett, 2008). The main idea of the theory is that the individuals from these cultures highly differ in socialization practices, social relations (in community, family), ways of obtaining food, sources of personal identity (see previous chapter), and philosophical tradition that it can influence the way of their thinking (categorization, causal attribution) and perceiving (memory processes, attention focus, etc.; Nisbett & Masuda, 2003; Nisbett & Miyamoto, 2005). The mechanism of transfer of a culture to differences in basic psychological processes is explained by the differences in social relations (independence/interdependence) and subsequently different ways of formation of self-construal (INDS/INTS; Nisbett & Masuda, 2003).

Nisbett (see Nisbett & Miyamoto, 2005; Kitayama, Duffy, Kawamura & Larsen, 2003) defined two specific cognitive styles: holistic and analytic cognitive style. The tendency to think and to perceive holistically or analytically develops in early childhood as a consequence of the process of socialization of an individual (Duffy, Toriyama, Itakura & Kitayama, 2009). The theory and its consequences for perception and thinking are summarized in table 3.

Table 3: Holistic and analytic cognitive style.

Cognitive style	Cultural profile	Consequences for:	
Holistic	collectivism/ interdependent self	attention to the field	intuitive reasoning
Analytic	individualism/ dependent self	attention to the focal object	formal reasoning

Source: own work.

There are two basic areas of application of the theory of ACS/HCS: perceptual processes and reasoning. While the individuals with analytic cognitive style tend to focus their attention on so called "*focal objects*" (objects that are dominating the visual scene; that are relatively large, colorful, or are moving) and their attributes, individuals with HCS focus more, relatively, on the broader perceptual and contextual field (background) and the relationships among the objects in the field (Nisbett & Masuda, 2003). Moreover, individuals with ACS tend to use rules of formal logic, where the conclusions are derived from an abstract analysis of premises (formal reasoning); individuals with HCS tend to rely more on intuition, holistic information processing and processing based on previous experiences (intuitive reasoning; Shiraev & Levy, 2013; Buchtel & Norenzayan, 2008).

There are various methods of diagnostics of cultural differences in perception that have been used in previous research. Kitayama and his colleagues (Kitayama, Duffy, Kawamura & Larsen, 2003) developed the FLT (Framed-line test) method, that is widely used in research on cross-cultural differences in visual perception (e. g. Uskul, Kitayama, & Nisbett, 2008; Ventura, Pattamadilok, Fernandes, Klein, Morais & Kolinsky, 2008). The procedure consists of a presentation of a series of geometrical figures composed of a rectangular frame and a vertical line. In the second phase only frames without lines are presented and the task is to draw a vertical line into the frame that either has the same absolute length as the previously presented line (absolute task) or has the same proportions to the frame as the previous line (relative task). The deviation in the length between the first and the second line is measured. A higher performance in the absolute task is dependent on the ability to perceive the line regardless of the context (ACS); a good performance in the relative task is supported by the ability to perceive the line within its context (HCS). Most of the Western respondents outperform East Asians in the absolute task and vice versa (Kitayama & Cohen, 2010).

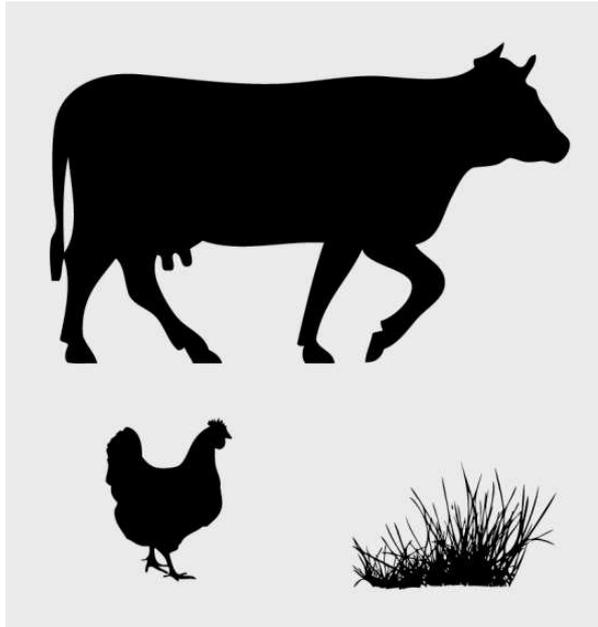
Another group of methods is based on the change-blindness phenomenon (Masuda & Nisbett, 2006). A series of two pictures that flick between each other at a very fast rate are presented to the respondents. The pictures do not differ in more than a single detail. The respondents are supposed to identify the difference; the reaction time of a correct identification is measured. East Asians outperform their Western counterparts in the speed of correct identification of changes in the background. Westerners have better results in the identification of changes of the focal object (Nisbett & Miyamoto, 2005).

In the field of visual perception the main focus of current research is the attention to the focal object versus the attention to the background, but in the field of higher cognitive processes and reasoning multiple topics are being studied. One of them is focused on the process of cognitive categorization of children. The respondents are presented with stimuli that contain three pictures (see Figure 2). The task is to choose two of the three objects that belong together. While western children tend to group objects based on their membership in a certain abstract category (here a chicken and a cow; category animals), non-western children tend to group objects on the basis of their resemblance (fly is similar to birds because it can fly) or relation (cow eats grass; Chiu, 1972). Thus, western children use formal reasoning and eastern children

intuitive reasoning. A similar but more demanding experiment was performed by Norenzayan (Norenzayan, Smith, Kim, & Nisbett, 2002), who asked adult respondents to match a target graphical stimulus to one of two groups. East Asians tended to match the object with the group, which shared more similar characteristics with the target (intuitive reasoning); Americans tended to match it based on unidimensional rule (formal reasoning).

Figure 2: Grouping based on abstract categories and on resemblance/relation.

Source: adapted from Chiu (1972).



Another line of researches demonstrating differences in reasoning between the East and the West is resolution of logical contradictions. The Westerners (unlike Asians) show a tendency to avoid such contradictions, which is caused by their inclination to apply the laws of formal logic (Nisbett, Peng, Choi & Norenzayan, 2001). At this point the three classical laws of thought will be mentioned:

- The law of identity: $A = A$; an object is identical to itself
- The law of non-contradiction: $A \neq \text{non-}A$; no statement can be both true and untrue
- The law of excluded middle: every statement is either true or false and there is no third possibility.

According to Peng and Nisbett (Peng & Nisbett, 1999) there is a certain tradition in Eastern philosophy that is contradictory to the Western concept of logic. This concept is called "*naïve dialectics*." Naïve dialectics can be characterized by three principles:

- The principle of change: Reality is a dynamic process. Therefore an object does not have to be identical to itself.
- The principle of contradiction: Due to constant change there are contradictory elements present in an object.
- The principle of holism: Due to constant change and contradictions within objects, phenomena are not isolated and independent; everything is connected to everything; the isolation of phenomena can only distort the reality.

There is a method to test the differences in evaluation of contradictory statements that demonstrates the cultural differences in reasoning. The basic assumption is that in the process of evaluation of two contradictory statements Westerners tend to accept one and refuse the other. Asians on the other hand tend to find a compromise between them (Nisbett, Peng, Choi & Norenzayan, 2001).

SHORT REPORT ON CONDUCTED RESEARCH

In this section I would like to report on the partial results (for individualism/collectivism only) of the research conducted as part of the author's dissertation. The goal of the research was to identify potential differences in IND/COL and visual perception of Czechs and Czech Vietnamese participants.

Methods and participants

The research battery consisted of four parts (for a more detailed description of the methods and procedures see Čeněk, Šašinka & Urbánek, 2015):

Scale of horizontal and vertical individualism and collectivism: The scale was adapted from its English original (Singelis, Triandis, Bhawuk & Gelfand, 1995) to Czech by Bartoš (2010). The number of items was reduced from 32 to 24 (8 items were excluded because of their lack of internal reliability). The scale measures four factors: horizontal individualism (HI), vertical individualism (VI), horizontal collectivism (HC) and vertical collectivism (VC). The items were evaluated on a 7-point scale, where 1 represents "I totally disagree" and 7 represents "I totally agree" with the statement.

Change blindness task: Adaptation of Masuda's and Nisbett's task (2006) with the original Rensink's (1997) timing. The task consisted of 25 items

Framed-line test: Adapted version of Kitayama's FLT (Kitayama, Duffy, Kawamura, & Larsen 2003); 16 items.

Figure and background test: Similar design to the design by Masuda and Nisbett (Masuda & Nisbett, 2001).

The data were gathered on a research platform, Hypothesis, a newer version of the MuTeP research platform (Stachoň, Šašinka, Kubíček & Štěrba, 2014). The research sample consisted of 92 participants (41 Czech Vietnamese, 51 Czech). Almost 85 % of the participants were undergraduate, 10 % had studied master's degrees. 84,8 % of respondents were between 18 – 22 years old.

Results

The frequencies for the entire research sample are reported in table 4.

Table 4: Frequencies.

		Statistics					
		VI_P	HC_P	VC_P	HI_P	IND	COL
N	Valid	92	92	92	92	92	92
	Missing	0	0	0	0	0	0
Mean		3,39596	2,90528	3,02391	3,31304	3,35450	2,96460
Median		3,28571	2,85714	3,00000	3,20000	3,28571	2,91429
Mode		3,143 ^a	2,429	3,600	3,200	3,014 ^a	2,243 ^a
Skewness		,133	,622	,416	,489	,171	,489
Std. Error of Skewness		,251	,251	,251	,251	,251	,251
Kurtosis		-,212	1,204	,470	-,189	-,352	,765
Std. Error of Kurtosis		,498	,498	,498	,498	,498	,498
Sum		312,429	267,286	278,200	304,800	308,614	272,743

Source: own work.

An independent-samples T-test was conducted to compare results of all four subscales and two scales of IND/COL for men and women. There was no significant difference in the scores for men and women ($p = .05$), nor was one assumed. The group statistics for Czechs and Czech Vietnamese are reported in table 5.

Table 5: Group statistics for Czechs and Czech Vietnamese.

Group Statistics

	Národnost	N	Mean	Std. Deviation	Std. Error Mean
VI_P	Vietnam	41	3,29617	,952114	,148695
	ČR	51	3,47619	1,028439	,144010
HC_P	Vietnam	41	2,73868	,679813	,106169
	ČR	51	3,03922	,723415	,101298
VC_P	Vietnam	41	2,76098	,680029	,106203
	ČR	51	3,23529	,701662	,098252
HI_P	Vietnam	41	3,06829	,828987	,129466
	ČR	51	3,50980	,925474	,129592
IND	Vietnam	41	3,18223	,691684	,108023
	ČR	51	3,49300	,763560	,106920
COL	Vietnam	41	2,74983	,612540	,095663
	ČR	51	3,13725	,531637	,074444

Source: own work.

The sample of Czech participants showed higher scores in all scales and subscales. An independent-samples T-test was conducted to compare results of all four subscales and two scales of IND/COL for Czech and Czech Vietnamese. There was no significant difference in the scores for Czech and Czech Vietnamese in VI ($p = .05$). There were significant differences in all other subscales and main scales ($p = .05$). These results suggest, contrary to expectations, that Czechs are both more collectivistic and individualistic than Czech Vietnamese.

SUMMARY AND DISCUSSION

The theoretical part of the paper was focused on the summary of the recent theoretical findings from the field at the border of cross-cultural and cognitive psychology, namely the theory of individualism and collectivism, a cultural dimension that is widely used in order to explain the influence of culture on basic psychological processes and behavior of individuals. The validity and reliability concerns about the IND/COL concept are mentioned in order to show limitations of IND/COL in cross-cultural research. Several perceptual and cognitive correlates of IND/COL are mentioned. The empirical part contains a short report of

research on IND/COL conducted as a part of the author's dissertation in 2014.

The results obtained from the research on IND/COL in the Czech Vietnamese and Czech populations were different than we expected. We assumed that due to a different lifestyle of Vietnamese community in Czech Republic that is characteristic with a relative closeness, relatively stronger bonds among its members (e. g. in family, community), and relatively stricter hierarchical structure (Freidingerová, 2014), its members will show higher levels of collectivism and lower levels of individualism compared to the Czech respondents. The results show that the Czech respondents show higher levels of both individualism and collectivism compared to the Czech Vietnamese. The differences are statistically significant ($p = .05$) in all the subscales except VI and in the both main scales, suggesting that young Czech university students are both more individualistic and collectivistic compared to the young Czech Vietnamese. The results don't support the traditional stereotype of the collectivistic tendencies of Czech Vietnamese (at least not of the young Czech Vietnamese).

The comparison of the means of the main scales with the validation study of the IND/COL scale on the representative sample of 1081 Czech respondents conducted by Bartoš(2010) can be found in table 6.

Table 6: Comparison to the validation study.

Scale	Means		
	Czech (Bartoš, 2010)	Czech (Čeněk, 2015)	Czech Vietnamese (Čeněk, 2015)
Collectivism	3.04	3.14	2.75
Individualism	3.62	3.49	3.18

Source: Bartoš (2010).

The mean scores of the Czech part of the research sample are similar to the scores reported by Bartoš (2010) with slightly higher mean scores of IND, while the mean scores of the Czech Vietnamese are significantly lower compared to both the representative sample and to the current sample of Czech respondents.

Further research is needed to be able to determine the true nature of IND/COL of the Czech Vietnamese minority. Apart from collecting data from a larger research sample, data from other age and social groups are needed.

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