

Between Individualism and Collectivism: Perception and Profiles of Creativity in Poland and Japan

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ABSTRACT

The aim of the study was to analyze creativity profiles and understanding of creativity in Poland and Japan. The study included 597 participants (233 Polish and 364 Japanese). Qualitative and quantitative analyses were carried out (mixed method). We identified the existence of five different creativity profiles and ten categories for defining creativity, with significant differences in frequency between the two countries. The obtained results are discussed from the perspective of intercultural differences and the individualism / collectivism theory (Hofstede, 1983).

INTRODUCTION

From the point of view of the traditional division into individualist and collectivist cultures (Hofstede, 1983) Japan is a collectivistic one, emphasizing socialisation practices, cooperation, duty and compromise for the group. As a result, people usually adapt to the rules of the group and ensure social harmony, rarely manifesting their own feelings, desires and opinions (Bond & Smith, 1996; Rudowicz, 2003). A person is seen as a natural correlative of the group, while creativity and innovations of the whole team are more important than individuals' creative potential (Markus & Kitayama, 1991). Western culture, on the other hand, is dominated by individualistic values (Hofstede, 1983). Creativity is usually seen as consisting of four dimensions: the characteristics of the creator (*person*), the properties of a product (*product*), the course of the creative process (*process*) and the properties of environment (*place, press*) (Rhodes, 1961). Interestingly,

a common feature for Poland and other former socialist countries of Central and Eastern Europe is the almost equal division of adherence to both individualistic and collectivistic values (Oyserman, Coon, & Kemmelmeier, 2002). There is a strong collectivist influence due to over 40 years of functioning under the communist rule of the USSR and the dominance of values implemented by the Catholic Church. On the other hand, since the end of communism in the 1980s, Poland has implemented Western values on the Eastern side of its borders (Boski, 2006). As a result, individualistic and collectivistic values intertwine in Poland, but one can see a systematic shift towards individualism (The Hofstede Centre, 2015). Creativity is being increasingly recognised as a valuable feature not only for an individual, but also for a group (Rudowicz, 2003). Its high level is determined by a specific set of cognitive and personality traits that can be developed and supported (Karwowski, 2010a).

Although there are many studies comparing Western and Eastern cultures (Oyserman, et al., 2002; Schwartz, 1994; Triandis, 2001; Wagner, 1995), little is still known about cross-border societies. For example, Poland in comparison with collectivistic cultures, like Japan. So, the question is whether and what is the place for creativity under such different conditions? Therefore, the first aim of the present study is to understand ways of defining creativity in Poland and Japan, and to identify similarities or differences in creativity profiles. The second aim is to identify whether there is a relationship between creativity profiles and creativity understanding in both countries.

CREATIVITY IN INDIVIDUALISM AND COLLECTIVISM

The early work on individualism and collectivism suggests that the individual's own benefits and goals are more important when compared to the goals and aspirations of the group he or she belongs to. Individualism is a condition in which personal goals are more important than the needs of the group. Individualists care more about their own interests than the team's needs, if the latter is in conflict with the individual's goals. At the other pole is a collectivist attitude, in which the requirements and needs of the group dominate the goals of individual members. Collectivists are concerned about the good of the group to which they belong, even if it sometimes requires abandoning one's own aims (Wagner & Moch, 1986). It has been noted that the distinction between the two ways of perceiving the goals of an individual and those of a group may also describe the functioning of each kind of society (Hofstede, 1980).

However, one should not assume that any given representative of individualist or collectivist culture represents the aforementioned characteristics. These features may indeed prevail in these individuals, but their exposure might depend on the situation (Triandis, 2001). Measurement of the intensity of individualistic and collectivist character-

istics also appears to be problematic. Despite the existence of several dozen methods, none of them is fully satisfactory (Triandis & Gelfand, 1998). Moreover, it seems that one cannot assume that there is a simple dichotomous division into two, possibly three types of societies (if we include the societies in-between the two poles) but rather more complex configurations are to be expected. First, there are as many collectivist cultures as collectivist types. In other words, every society belonging to a collectivist group represents a slightly different set of values. One of the dimensions of these differences is the horizontal - vertical aspect (Singelis, Triandis, Bhawuk, & Gelfand, 1995). Thus, by adding this dimension, it becomes possible to identify not two, but four types of cultures: Horizontal Individualism (a person wants to be independent and do their own thing at the same time), Horizontal Collectivism (a person identifies and connects with their group), Vertical Individualism (a person wants to do their best and be the best at the same time) and Vertical Collectivism (a person subordinates to group authorities and is willing to make sacrifices for the good of the group) (Triandis, 1995).

In existing studies, collectivist societies like Japan, Korea, India or China are compared with mainly individualist societies, i.e. the United States, Australia or Canada in many different areas (Howard, Shudo, & Umeshima, 1983; Hui, Triandis, & Yee, 1991; Oyserman, et al., 2002; Schwartz, 1994; Triandis, 2001; Wagner, 1995). Creativity is one such area, which, due to its complexity and different ways of understanding within each culture, is difficult to define simply through the prism of intercultural differences. Since collectivist cultures promote interdependence and harmony, their members may have a higher degree of conformism, which is less conducive to creativity, than members of individualist groups (Bond & Smith, 1996). In turn, the higher level of independence, which is characteristic of individualist groups (Nemeth, 1985) may enhance the level of creativity of their members (Goncalo & Staw, 2006). Younger representatives of Western countries, perform better at creativity tests than their peers from Eastern societies (Jaquish & Riple, 1984; Jellen & Urban, 1989), unless only figural tests are used. In this case, the collectivist participants (Chinese) obtain better results than individualistic participants (Americans). One of the reasons for the higher performance in figural creativity may be the fact that the Chinese use a character-based language while American English is a phonetic-based language (Rudowicz, Lok, & Kitto, 1995). Moreover, individualistic groups, when instructed to act creatively, are more creative than collectivist groups which have received the same behavioural instruction (Goncalo & Staw, 2006). If the study also includes a horizontal-vertical dimension, it appears that horizontal collectivism, as well as horizontal individualism, play an important role at the concept generation stage

(Yao, Wang, Dang, & Wang, 2012). It seems, therefore, that the main question should not be about differences in the level of creativity, but rather on the way, or type of creativity, manifested by members of different societies.

It would appear that our main question should concern ways of producing creativity or its types manifested by members of various societies, rather than differences in creativity levels.

PERCEPTION OF CREATIVITY IN POLAND AND JAPAN

Environment, including the culture of origin, determines how people define and manifest their creativity. Since it is a phenomenon deeply rooted in culture (Csikszentmihalyi, 1999), socio-economic, political and cultural factors may influence the way in which creativity is understood (Sternberg & Lubart, 1999).

For a better understanding of the issue of defining creativity in Poland and Japan, it should be noted that there are two terms for creativity, both in the Polish and the Japanese language, but that these are not synonymous. The first one, in Polish *kreatywność* (Karwowski, 2009) and in Japanese *souzousei* (Japan Creativity Society, 2003) - is closer to the concept of little-c creativity (Kaufman & Beghetto, 2009) and means everyday ingenuity, efficient problem solving on a narrow scale. It is therefore a potential for or promise of future creative products. This potential may someday develop into a Big-C Creativity (Kaufman & Beghetto, 2009), in Polish *twórczość* (Karwowski, 2009) and in Japanese *souzou* (Japan Creativity Society, 2003) - creation, which means art or great discoveries, closely related to a specific field.

Early Polish scientific theories from the 1920s, define creativity as an egalitarian feature that every human being possesses (Korniłowicz, 1976; Rowid, 1926). Later conceptions, from the turn of the 1970s and 1980s, indicate however, a return to understanding creativity as a feature of outstanding individuals (Góralski, 1978; Strzałecki, 1969). Such a distinction still operates today. Little-c creativity refers to liquid (Nęcka, 2001) or personal creativity (Pufal-Struzik, 2006), while Big-C Creativity is described as eminent creativity (Nęcka, 2001). Moreover, creation (in Polish *twórczość*) is usually attributed to intellectual property, such as abilities or talents. On the other hand, creative people (*kreatywni ludzie*) are more often described as active, dynamic and entrepreneurial (Karwowski, 2008).

By contrast, Japanese laws and regulations in the form of the *Basic Act on Education* provide a definition of creation in the original version from 1947 and of creativity in the revised version, updated in 2006. Interestingly, the Japanese *Ministry of Education, Culture, Sports, Science and Technology* has reflected this conceptual change from creation to creativity in the national laws. Here we compare the revised and original versions

of the Basic Act on Education. In the original version, in *Article 2. Educational Principle*, the definition reads: “we shall endeavour to contribute to the *creation* and development of culture by mutual esteem and co-operation, respecting academic freedom, having a regard for actual life and cultivating a spontaneous spirit.” (Basic Act on Education, 1947). On the other hand, in the revised version (Basic Act on Education, 2006), these laws have been changed as follows: “to develop the abilities of individuals while respecting their value; cultivate their *creativity*; foster the spirit of autonomy and independence; and foster an attitude to value labour while emphasizing the connections with career and practical life.”

Contemporary research on understanding the concept of creativity both in Poland and Japan are conducted mainly in the field of education. Creativity is mainly understood by Polish teachers as creative potential (Gralewski, 2016), closer to mini-c creativity (Kaufman & Beghetto, 2009). This phenomenon is described as the ability to create, solve problems and be open to novelty, as well as to think independently and go beyond the framework, which manifests itself, for example, in expressing one's opinions easily. Moreover, in the opinion of teachers, creativity is often associated with various kinds of artistic activity (Gralewski, 2016), rarely as great works, understood as Big-C creativity (Kaufman & Beghetto, 2009). Among implicit theories of creativity one can also find opinions concerning creative students. They are described as innovative, independent and effective in problem solving, but also impulsive and rude at the same time (Gralewski & Karwowski, 2016). This type of understanding is closer to the image of innovators, from creative styles theory (Kirton, 1976). On the other hand, teachers tend to perceive creative students as adaptors (Kirton, 1976), polite and subordinate, with high levels of perseverance; or as those capable of creating new ideas and problem solving (Gralewski & Karwowski, 2016).

Likewise, in the Japanese national curricula *the courses of study for elementary, lower secondary and upper secondary schools*, creation and creativity are defined mainly in relation to art and music. However, Japanese elementary and secondary school boards and teachers themselves had not considered creation and/or creativity important in education until the 1960s. Further, in East Asia the term creativity often implies mastering and perfecting skills through rigid training. The East Asian concept of creativity is less focused on innovative products or ideas (Lubart, 1999). Chinese people also tend to be “more willing to rearrange the pattern or make a modest alteration to existing knowledge than to start a radical change” (Rudowicz, 2004, p. 62). In this respect, creativity in East Asia is sometimes based on modification and renovation of existing knowledge, skills and

wisdom. Indeed, creativity in Japan often means renovation rather than invention. The verb *manabu* (learn) originates in *manebu* (imitate) in Japanese traditional culture. Imitation of a professional model has been the centre of the transmission of artistry in martial arts and fine arts (Hahn, 2007). The professional form of movement is called *kata* in many traditional Japanese sports like jūdō, kendō and sumō. Similarly, professional methods are called *ryu* in many Japanese arts, such as *sadō* (tea ceremony), *kadō* (flower arrangement), *kabuki acting*, theatre performance and traditional music.

In addition, traditional Japanese arts emphasize inner creativity in order to feel impressive passion and to identify genuine sensitivity, more than creative expression (Lubart, 1999). Basically, traditional Japanese arts aim at cultivating inner richness. The emphasis of such practices is more on the art of impression over the art of expression (Matsunobu, 2013).

There is, however, very little academic research among educational researchers and lecturers of art, sports and music or professionals that have focused on creativity. In addition, empirical data are rarely given when discussing this issue. As one of the few qualitative research studies, Mito (2015) adopted a qualitative method to clarify professional musical players' inner creativity by interviewing seven musicians. The priority for a *shamisen* player (Japanese stringed instrument for playing traditional Japanese music) and a *shakuhachi* player (Japanese flute for playing traditional Japanese music) was how the performance affected the audience. Conversely, the two Western classical musicians' notions were more individualistic. Furthermore, many participants placed importance on rules and conventions based on traditions, to create new styles which are more congruent with the time period in which they are performed.

In summary, Western and Eastern cultures seem to influence the components of creativity. Creativity in Western culture seeks novelty, self-expression and individuality. Conversely, creativity in Eastern culture focuses on skills, techniques, knowledge, the impression made on others (including the audience) and collaboration with others traditionally (Matsunobu, 2013; Mito, 2015). In view of Sternberg and Lubart's (1999) definition of creativity as "the ability to produce work that is both novel and appropriate", it is important to reconsider what kind of elements compose creativity, in order to embody the novelty and appropriateness in creativity accentuated in Western and Eastern cultures. Comparative studies on this topic are conducted mainly in countries that are on two distinct poles of individualism - collectivism (i.e. Howard, et al., 1983; Hui, Triandis, & Yee, 1991; Oyserman, et al., 2002). Moreover, researchers focus either on qualitative or quantitative analyses without attempting to combine these two approaches (i.e. Schwartz,

1994; Triandis, 2001; Wagner, 1995; Mito, 2015). Therefore, taking into account the above limitations, it was decided to conduct comparative analyses between Poland and Japan, and to combine qualitative and quantitative research methods in a mixed approach.

METHOD

Participants

The study involved 597 participants (233 Polish and 364 Japanese pedagogy students). In order to maximise the equivalence of groups, respondents were recruited among students from two universities in Warsaw and two universities in Tokyo. There were no males in the Japanese sample and only two males in the Polish group. The average age of the respondents was $M = 22.2$, $SD = 5.31$ (Poland $M = 24.5$, $SD = 7.00$, Japan $M = 20.5$, $SD = 2.35$).

Measures

1. *The Creativity Types Questionnaire* by Karwowski, Jankowska, & Gajda (2015) was used to examine the creativity profiles. The 30-item questionnaire is designed to measure the intensity of creativity types. Answers are measured on a 5-point Likert scale (1_ *definitely not*, 5_ *definitely yes*). The questionnaire allows the intensity of responses in each of three areas: creative ability, openness and independence, (which make up the full concept of creativity) to be measured. The accuracy of each scale is respectively: creative ability $\alpha = .90$; openness $\alpha = .67$; independence $\alpha = .75$,
2. To identify the understanding of the term 'creativity', respondents were asked to answer an open question: 'Please write a brief definition of creativity in your own words'. Polish respondents received all the instruments in Polish while Japanese respondents in Japanese. All the instruments were translated into Japanese with back-translation standards, by a professional translator. In questions concerning the definition of creativity, the Polish term (*kreatywność*) and the Japanese term (*souzousei*) were used, corresponding to little-c creativity.

Procedure

The study was conducted in a group setting, according to the ethical guidelines of the American Psychological Association (APA 2010, 2016). Completing the questionnaire and the answer to the open question were considered equivalent to participants giving their consent to participate in the study. Participants were informed about the full anonymity of the study and the quantification of the results.

RESULTS

Analysis of creativity profiles

In order to identify creativity profiles, based on the intensity of creative ability, openness and independence, the first step was to check whether the Polish and Japanese students had similar or different levels of intensity in the three components of creativity. The results of t-test comparisons showed significant differences in favour of the Polish respondents. In each of the three scales, Poles achieved significantly higher results than the Japanese. On the creative ability scale, the average results for the Poles were $M = 3.61$; $SD = .61$ while for the Japanese $M = 2.89$; $SD = .67$, ($t(605) = 13.317$, $p < .0001$). For openness the results for the Poles were $M = 3.64$; $SD = .60$, and for the Japanese $M = 3.53$; $SD = .57$ ($t(608) = 2.16$, $p = .031$). The results on the scale of independence for the group of Poles were $M = 3.60$; $SD = .57$, and for the Japanese $M = 3.21$, $SD = .58$ ($t(600) = 8.16$, $p < .0001$).

In the second step cluster analysis was performed. After a preliminary analysis of the dendrogram, 5 to 8 groups were selected. According to the assumptions of the creativity concept based on the construction of the Creativity Profiles Questionnaire, it is possible to identify up to eight major creativity profiles (Karwowski, 2010b). ANOVA variance was then conducted successively for five, six, seven and eight possible clusters. Despite the possibility of eight main groups, the greatest differences between the averages were found for a five-point solution (creative ability $F(4,592) = 216.03$, $p < .0001$, $\eta^2 = .593$; openness $F(4,592) = 253.23$, $p < .0001$, $\eta^2 = .631$; independence $F(4,592) = 217.85$, $p < .0001$, $\eta^2 = .595$). As shown in Table 1, in the first cluster all three factors reach a high level, which corresponds to the *complete creativity* profile. In the second cluster all factors are low which matches the *reproduction and imitation* profile. In the third cluster, creativity and independence are high while openness is low. This combination of components corresponds to the *rigid and rebellious creativity* profile. Cluster Four includes creativity and independence at low levels and high levels of openness which matches the *withdrawn curiosity* profile. In the fifth cluster, creative ability is low, while openness and independence reach a high level, corresponding to the *self-realization* profile (Karwowski, 2010b).

Table 1
Creativity Profiles, Cluster Analysis and Frequencies in Both Countries

Creativity profiles	Creative ability	Openness	Independence	Total 100% (N = 597)	Poland 100% (N = 233)	Japan 100% (N = 364)
1. <i>complete creativity</i>	1.225	.747	1.023	20.9% (N = 125)	38.6% (N = 90)	9.6% (N = 35)
2. <i>reproduction and imitation</i>	-1.172	-1.143	-1.012	18.4% (N = 110)	8.2% (N = 19)	25.0% (N = 91)
3. <i>rigid and rebellious creativity</i>	.185	-.775	.039	21.8% (N = 130)	26.6% (N = 62)	18.7% (N = 68)
4. <i>withdrawn curiosity</i>	-.116	.709	-.648	23.6% (N = 141)	13.3% (N = 31)	30.2% (N = 110)
5. <i>self-realization</i>	-.380	.406	.774	15.2% (N = 91)	13.3% (N = 31)	16.5% (N = 60)

As seen in Table 1, 38.6% of Polish respondents have a *complete creativity* profile while only 9.6% of all Japanese respondents fall within this category. Similarly, large differences are observed in the *reproduction and imitation* profile (8.2% of Poles and 25% of Japanese), and the *withdrawn curiosity* profile (30.2% of Japanese and 13.3% of Poles). Slightly smaller differences between the percentages of respondents compared to the general population for a given country are observed in the *rigid and rebellious creativity* and *self-realization* profiles. The differences observed between both countries are moderate and statistically significant ($\chi^2(4) = 101.24$, $p < .0001$; Kramer V = .412, $p < .0001$).

Analysis of the understanding of creativity

In order to trace the way in which creativity is understood by Poles and Japanese, their definitions of creativity were examined and coded. Coding was carried out by using the constant comparison method (Glaser & Strauss, 1967), including open coding in the first step and axial coding in the second step (Strauss & Corbin, 1990). Code labels were the “in-vivo” descriptions, included in respondents’ answers (Strauss & Corbin, 1990). The second encoding was carried out by two graduate students trained in the coding procedure. After re-encoding the responses, final categories were selected. Any contentious issues were clarified among the encoders up to date, looking for the best possible solution.

Finally, ten codes were used to classify respondents’ understanding of creativity. These were: *unconventional functioning* (i.e. different perspectives of vision, crossing borders, expressing oneself, richer life); *ingenuity and inventiveness* (i.e. new ideas, new solutions to problems, unconventional thinking, flexibility of thinking, improvisation); *imagination and visualization* (i.e. ability to imagine, vivid and rich imagination); *personality traits* (i.e. openness, independence, persistence, ambition, desire for development, opti-

mism); *Little-c creativity* (everybody's traits, everyday creativity); *Big-C Creativity* (i.e. in-born talent, not possible to learn, dependent on social assessment); *artistic activities* (i.e. manifests in music, art, theatre, literature); *environmental impact* (i.e. depends on actions of parents and guardians, depends on educational environment); *knowledge and experience* (depends on experience and knowledge); *other* (lack of definition, unclear definition or impossible to classify in one of the nine groups).

Table 2

Examples of Code Categories

Code	Response
<i>unconventional functioning</i>	<ul style="list-style-type: none"> • “not necessarily conventional and definitely not the textbook approach to many issues” (R1) • “our own way to show ourselves, our emotions, which we hide inside” (R2) • “ability to see the world in an individual, colourful, inventive way” (R34) • “person has an interesting plan for his or her life and who is executing this plan” (R90)
<i>ingenuity and inventiveness</i>	<ul style="list-style-type: none"> • “creative person has a lot of ideas for spending time, is able to plan various interesting solutions to the problem” (R84) • “the ability to invent new solutions to problems, the ability to look at ordinary things in a new unusual way” (R193) • “ability to create things which are more than just common thoughts and ideas that most people come up with” (R430) • “creativity is inventiveness. I think this is the ability to think out good ideas and create beautiful work” (R460)
<i>imagination and visualization</i>	<ul style="list-style-type: none"> • “person has a rich imagination” (R18) • “power to imagine different things” (R518) • “making a difference in imagination and thinking” (R485) • “creativity is imagination and the art of putting it in some shape” (R427) •
<i>personality traits</i>	<ul style="list-style-type: none"> • “depends on different aspects like timing and individuality and character” (R456) • “a good understanding of reality and approach it with great optimism, the peace of mind” (R70) • “to be open to ideas” (R118) • “power to have the ambition to create something” (R579)
<i>Little-c creativity</i>	<ul style="list-style-type: none"> • “ability which everyone has and which might differ from person to person in the approach” (R601) • “creativity in everyday life can be found in the simplest of tasks e.g. how to prepare good, nice looking dishes on a plate” (R16) • “ability which everyone has. It is not something good or bad. I think it is related to individuality” (R539)
<i>Big-C Creativity</i>	<ul style="list-style-type: none"> • “talent” (R554) • “to some extent it is decided by inborn qualities” (R556) • “inborn ability, and therefore difficult to develop later” (R606) • “inborn talent. By learning and training probably may be improved, but will never become a real talent” (R627) • “can be discovered only by being evaluated by other people” (R327)

Code	Response
<i>artistic activities</i>	<ul style="list-style-type: none"> • “necessary for creating artistic work” (R348) • “necessary for learning art, music etc.” (R354) • “you eventually decide which way of expressing yourself (picture, writing, music, etc.) is the best one for you” (R433) • “creativity is the ability needed to be able to better create some artistic, etc. work and generate such ideas” (R563)
<i>environmental impact</i>	<ul style="list-style-type: none"> • “I think its development and broadening depends on the environment. Education is also one of the aspects which nourishes creativity “ (R500) • “I think it is just a thing which is improved by different experience and environment” (R558) • “it depends on the environment in which the person has been born and raised” (R465) • “creativity differs according to environment (people around, how and where you have been raised, etc.)” (R337)
<i>knowledge and experience</i>	<ul style="list-style-type: none"> • “in general it is based on experience and might be developed at any moment” (R545) • “something which is based on general fundamental knowledge” (R595) • “by effort and experience it can be broadened and learned” (R431) • “I think it is combination of experience and knowledge. For example, our grandparents know much more than we young people do about living in this world. This is so because they have experience of living in the world, and because they have wisdom after living a long life” (R258)
<i>other</i>	<ul style="list-style-type: none"> • “first of all creativity is not something which can be clearly defined as ‘creativity is this and that’. It is a very vague and ambiguous term, and I myself don’t know whether I am a creative person or not” (R267) • “creativity is widely understood as creation” (R193) • “it is hard to define concretely such that ‘creativity is such a thing’” (R297) • “something which comes later” (R476)

To determine whether there is a relationship between understanding creativity and creativity profiles, χ^2 tests were performed for both countries. The results did not confirm any link; in other words, creativity profile does not differentiate how respondents understand creativity. Searching for other possible dependences, the next step we took was to analyze the frequency with which each category occurred in the creativity definitions among the two surveyed groups. The results are shown in Table 3 below.

Table 3
Comparison of Code Category Frequencies in Polish and Japanese Responses

Code	Poland	Japan	chi squared
<i>unconventional functioning</i>	N = 64 (26.0%)	N = 77 (16.1%)	$\chi^2(1) = 10.17, p < .001$; Kramer V = .118)
<i>ingenuity and inventiveness</i>	N = 197 (80.1%)	N = 136 (40.8%)	$\chi^2(1) = 174.29, p < .0001$; Kramer V = .491)
<i>imagination and visualization</i>	N = 31 (12.6%)	N = 17 (3.6%)	$\chi^2(1) = 21.47, p < .0001$; Kramer V=.172)
<i>personality traits</i>	N = 33 (13.4%)	N = 10 (2.1%)	$\chi^2(1) = 37.27, p < .0001$; Kramer V = .227)
<i>Little-c creativity</i>	N = 20 (8.1%)	N = 60 (12.6%)	$\chi^2(1) = 3.23, p = .072$; Kramer V = .067)
<i>Big-C Creativity</i>	N = 7 (2.8%)	N = 75 (15.7%)	$\chi^2(1) = 26.68, p < .0001$; Kramer V = .192)
<i>artistic activities</i>	N = 11 (4.5%)	N = 22 (4.6%)	$\chi^2(1) = .006, p = .936$; Kramer V = .003)
<i>environmental impact</i>	N = 4 (1.6%)	N = 17 (3.6%)	$\chi^2(1) = 2.15, p = .143$; Kramer V = .054)
<i>knowledge and experience</i>	N = 0 (0%)	N = 24 (5.0%)	$\chi^2(1) = 12.78, p < .0001$; Kramer V = .133)
<i>other</i>	N = 4 (1.6%)	N = 33 (6.9%)	$\chi^2(1) = 9.33, p < .002$; Kramer V = .114)

Note: Percentages in columns do not sum up to 100%, one respondent's answer could contain more than one category code

There are significant differences between both countries, with regard to the frequency in seven coding categories. Poles associated creativity more often with *unconventional functioning*, *ingenuity and inventiveness*, *imagination and visualization*, and *personality traits*. By contrast, Japanese defined creativity more often as *Big-C Creativity* which required *knowledge and experience*. In addition, the Japanese tended to have a problem with the unambiguous definition of this term (*other* category).

DISCUSSION

In our study we pursued a cross-cultural survey by means of quantitative and qualitative analyses to clarify the cultural differences in creativity profiles and perception of creativity between Polish and Japanese students. Initially, five creativity profiles were identified using cluster analysis. The most significant differences between groups occurred within the *complete creativity* profile. Among Polish respondents almost 40% presented this set of characteristics, while among the respondents from Japan fewer than 10% fell within this profile. The reverse situation was observed for the *reproduction and imitation* profile, which contained slightly over 8% of Poles and a quarter of the Japanese respondents. It would seem that these results may have originated in the understanding of the term "creativity" in Japan, which often implies mastering and perfecting skills through rigid training, based on modification and renovation of existing knowledge, skills and wisdom.

Our results support previous research which suggest that the East Asian concept of creativity is less focused on innovative products or ideas (Lubart, 1999) and that imitation is important to acquire and accomplish Big-C talents (Hahn, 2007).

Differences in the *rigid and rebellious creativity* profile were not so striking and revealed that this set of features was presented by Poles more often than by the Japanese. In turn, respondents falling within the *withdrawn curiosity* profile were predominantly Japanese. These results indicate a tendency for more frequent presentation of independence by Poles, whereas among Japanese, lower independence and creative capacity are more often associated with a high level of openness. This may be related to social norms and higher expectations of adapting to the environment, as well as to group requirements in Japanese society. In his earlier work, Zimbardo (1977) argued that Japan is prototypical of a shyness-generating society with its emphasis on self-control, inhibition of self-expression and pressure to maintain prestige of the group through avoiding personal failure and embarrassment. In such a way, shyness seems to be related to collectivist values that emphasize constraint on personal behaviour to minimize the risk of criticism and make acceptance contingent on social standards of performance (Okazaki, 1997). Openness is sometimes contrasted with shyness; therefore, the Japanese might have indicated lower independence and creative ability, at the same time demonstrating greater openness.

In turn, among Poles, there is a high degree of independence and a high level of creativity, in combination with low openness. This can be explained by a turn towards non-conformism and greater self-awareness in terms of creativity, which is characteristic of individualism (Hofstede, 1980, 1983). Interestingly, if high openness coexists with high independence and low creative ability, this *self-realization* profile is more often presented by Japanese respondents. It seems that some Japanese with lower creative ability, have higher cognitive curiosity, a greater interest in imitation and acquiring knowledge, and the willingness to learn from traditional skills and customs, rather than the need to create revolutionary changes (Lubart, 1999; Mito, 2015).

It seems reasonable to analyze the results of the creativity profiles in the context of different creativity styles. Explorers (Martinsen & Kaufman, 1991), Innovators (Kirton, 1976), Finders (Galenson, 2001) or people following the path of flexibility (De Dreu, Baas, & Nijstad, 2008) prefer innovative ways of problem solving and questioning existing rules and traditions. On the other hand, Assimilators (Martinsen & Kaufman, 1991), Seekers (Galenson, 2001), Adaptors (Kirton, 1976), or those who prefer the path of perseverance (De Dreu, et al., 2008) appreciate the experience, prefer proven solutions to problems, and, if appropriate, adjust them to the needs of the situation, while moving within existing

paradigms and domain traditions. In truth, the research in this area does not give a clear answer. The Japanese seem not to prefer any of the creativity styles (Dollinger & Danis, 1998), however, more frequent manifestation of reproduction and imitation, withdrawn curiosity and self-realisation profiles place them closer to the adaptation pole. Creativity within the Japanese meaning is based on elaborate solutions and perfect finalization, to which the authors seek a common path. By contrast, more frequent occurrence of complete creativity and rigid and rebellious creativity in the group of Poles suggests that their behaviour may be closer to the innovation pole. As partial support of this thesis may serve the fact that creativity in the Polish literature is defined as creating new, original products (Szmidt, 2007) and conducting training activities based on this concept (Lewandowska, 2010).

Although there was no relationship between creativity profiles and creativity definitions, Poles and Japanese differ significantly in defining creativity. In the second stage of our study, we conducted a qualitative analysis of respondents' answers concerning the definition of creativity. Poles more often came up with definitions for a specific attitude to life, going beyond established schemes of thinking, and ease in solving problems. The definition of creativity in terms of imagination and a specific set of personality traits is also more often found in Poles' statements. Similar results were obtained in previous studies of Polish teachers, in which creativity was described, among others, as a problem-solving ability, ingenuity and independent thinking (Gralewski, 2016).

In turn, Japanese people more often define creativity as a feature reserved only for a selected group of people. They associate it with a talent or some kind of inborn ability, which we either do or do not possess. Understanding creativity in such a way is synonymous with professional methods which are called *ryu* in many Japanese arts (Matsunobu, 2013). Japanese respondents also emphasize the huge role of knowledge and experience as essential elements for creativity, which, interestingly, was not noticed by any of the Polish respondents. Accordingly, this may indicate that creativity in Eastern cultures focuses on skills, techniques, knowledge, the impression made on others (including the audience), and collaboration with others traditionally (Matsunobu, 2013; Mito, 2015). The results of the analysis of creativity definitions seems to confirm the thesis about different creative mindsets, which may be presented by representatives of the two surveyed countries. Based on the Intellectual Mindsets theory by Dweck (2006), the Creative Mindsets concept (Karwowski, 2014) distinguishes between two types of mindsets: fixed and growth. Individuals characterised by a fixed creative mindset perceive creativity, motivation and personality traits associated with creativity as fixed and unable to change over

time. Conversely, those with a growth creative mindset perceive creativity and characteristics associated with it as variable and conducive to efforts for development (Karwowski, 2014). Therefore, it is possible that the Japanese more often understand creativity through the prism of a fixed mindset, while Poles tend to understand it more through the growth mindset.

The presented study clearly is not free from limitations. Firstly, only women (except for two men from Poland) were included in the study group. This situation occurs due to the specifics of the pedagogical fields under study. It may, however, distort the results and deplete them. Future research should also include gender-sensitive groups. Secondly, the Creativity Profiles Questionnaire used in the study is still in the standardization phase, which may reduce the reliability of the obtained data. In future studies, it is also worth including the area of creativity styles as one of the important elements of comparative diagnosis. Finally, it seems that one of the most important directions for future research is the creativity group. This could not be verified in the present study, since the tools used focused only on individual creative potential. An analysis of group creativity could bring much more interesting results with regard to the Japanese culture.

However, despite these limitations, it seems that our results are likely to bridge the gap in intercultural research on understanding and identifying creativity. Creativity in Japan is undoubtedly strongly influenced by cultural factors, but it is certainly a mistake to make value judgements regarding the kind of creativity that is better. Japanese functioning is different from European realities; their creativity is more elaborate and depends on the effort of the team. Apart from creating new products, the goal is also to build an effective team that works well and uses group synergy (Herbig & Jacobs, 1996). On the other hand, despite the continuous conflict between group and individual values in Poland, in the area of creativity one can notice a shift towards individuality; this may be partly linked to the unwillingness of the collective imposed by the USSR for many years (Boski, 2006; The Hofstede Centre, 2015). We have managed to identify interesting differences in both the manifestation of creativity by representatives of two different cultures and in their understanding of creativity. These differences seem to go far deeper than a simple distinction along the dimension of individualism-collectivism.

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