

ONLINE CHILD PORNOGRAPHY: A CULTURAL FOCUS LITERATURE REVIEW

PORNOGRAFÍA INFANTIL ONLINE: UNA REVISIÓN LITERARIA DE ENFOQUE CULTURAL

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Abstract

Due to the Internet expansion around the world, child pornography is internationally considered as a crime, but we are uncertain of whether culture has some impact on it. The objective of the present review was to explore cultural aspects included in literature as key variables to analyse this type of crimes, using Hofstede's cultural dimensions (2010) as theoretical framework. A total of 125 papers on pornography (period: 2003-2016) were

found in Web of Science®; but only 50 contain some implicit or explicit cultural references. The results showed few cultural variables considered for the scientific approach to child pornography, being the country of birth or race the mainly only ones considered. The major contribution of our research highlights the importance to incorporate the cultural dimension in the police task to assess the indicators that determine the risk factors in aggressors. In this sense, the present research contributes to hypothesize probable cultural differences when using tools as the Kent Internet Risk Assessment Tool (KIRAT) in the European context.

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Resumen

La eclosión de Internet a nivel mundial ha facilitado la diseminación de pornografía infantil, siendo esta considerada un crimen a escala internacional. Por ello, hemos considerado relevante analizar los aspectos culturales vinculados a este delito. El objetivo de la presente investigación ha sido explorar los aspectos culturales incluidos en la literatura científica como variables clave para analizar este tipo de delitos, partiendo de las dimensiones culturales de Hofstede (2010) como marco teórico. Durante los años 2003 a 2016 se han publicado un total de 125 artículos sobre pornografía en la Web of Science®, si bien sólo 50 de ellos contenían referencias culturales implícitas o explícitas. Los resultados mostraron que son pocas las variables culturales consideradas, siendo el país de nacimiento o la raza las principalmente incluidas. El principal resultado de nuestra investigación constata la importancia de incorporar la dimensión cultural en el trabajo policial al establecer los indicadores que determinan el factor de riesgo en agresores. En este sentido, en el contexto europeo, herramientas como la Kent Internet Risk Assessment Tool (KIRAT) se han visto enriquecidas a partir de los resultados de esta investigación.

Palabras clave: En línea; Pornografía infantil; Cultura; Internet; Dimensiones culturales de Hofstede.

Introduction

WWW domain is now the principal medium of accessing and disseminating indecent images of children and the use of the Internet for these purposes is widespread (Laulik, Allam, & Sheridan, 2007; Negrodo & Herrero, 2016). In the beginning of propagation of Internet, Rimm (1995) tried to analyse the pornographic content in *Usenets on Internet*. He was one of the first to notice that 15% of pornography on the Internet involved children or young people. Nowadays, according to the

Child Exploitation and Online Protection Centre (CEOP), the proliferation of child pornography continues to be on *Hidden Internet* giving an advantage to offenders (CEOP, 2013).

Distribution of indecent images may involve sophisticated paedophile rings or organized crime groups that operate for profit, by selling indecent images of children or setting up websites requiring payment for access. However, in many cases it is carried out by individuals who seek no financial reward (Hernandez, 2000; Wolak, Mitchell, & Finkelhor, 2003; Wortley & Smallbone, 2006). Even though it is not possible to establish a precise number, in 2012 CEOP calculated that around 50.000 people were involved in downloading and sharing this kind of material. The non-financial reward group has been the most frequently studied. Specifically, their individual characteristics such as employment (Burgess, Mahoney, Visk, & Morgenbesser, 2008), marital status (Webb, Craissatti, & Keen, 2007), filiations (Reijnen, Bulten, & Nijman, 2009) or personality disorders (Niveau, 2010) have been the most frequent variables considered.

Researchers from investigative psychology perspective on child pornography distinguished between victims and material. Probably, because of the difficulty to identify victims of child pornography or the need to predict aggressor's behaviours, the study of victims' characteristics leads to analyse pornographic material, where victims are not individually identified (Quayle & Jones, 2011; Wolak, Finkelhor, & Mitchell, 2011). However, from another point of view, authors administered questionnaires to general child population asking about unwanted sexual solicitations; but they do not always represent all kinds of child pornography victims (Mitchell, Finkelhor, Jones, & Wolak, 2012), or sexting (Wolak, Finkelhor, & Mitchell, 2012).

Related to the three elements mentioned above - offenders, victims and pornographic material- and based on a psychosocial perspective, this paper, based on a psychosocial perspective, aims to analyse to what extent the field studies, as simulation design studies are nor valid in psychosocial research of offenders and victims

(Fariña, Arce, & Real, 1994), of child pornography on the Internet have considered cultural variables.

Theoretical background

Psychosocial perspective attempted to classify different societies using different measures of their relevant elements. The Hofstede's model of dimensions of national culture has been useful to analyse and to understand many areas of human social life: business (Ganescu, Gangone, & Asandei, 2014), environmental health (Onel & Mukherjee, 2014), or education (Sadeghi, Amani, & Mahmudi, 2013) inter alia. Regarding the Internet, this model was applied in e-commerce (Goethals, Carugati, & Leclercq, 2009), in banner advertising (Moller & Eisend, 2010) or e-learning environments (Haag, Duan, & Mathews, 2007). Despite this, until now it has not been applied in investigative psychology and neither in cyber-crimes, like child pornography.

According to Hofstede, Hofstede and Minkov (2010), "culture is the collective programming of the mind that distinguishes the members of one group or category of people from others" (p. 6). The original four dimensions of Hofstede's model were: *Power Distance*, *Individualism*, *Masculinity*, and *Uncertainty Avoidance*.

Power Distance refers to the different ways in which societies manage efficiently human inequity. This includes several aspects such as wealth, prestige and power. It is not based on how cultures endorse objective differences in power distribution but the way people perceive power differences (from small to large).

The *Individualism* dimension is considered by the author as one dimension with two poles, and ranges from high *Individualism* (individualistic pole) to low *Individualism* (collectivistic pole). The individualistic pole, is characterized by "societies in which the ties between individuals are loose: everyone is expected to look after themselves and their immediate family" (Hofstede et al., 2010, p. 92). The route to happiness is through personal fulfilment. The collectivistic pole, oppositely, refers to "societies in which people from birth onward are integrated into strong, cohesive in-groups, which throughout

people's lifetime continue to protect them in exchange for unquestioning loyalty" (Hofstede et al., 2010, p. 92). Thus, the relationship between individuals and collectivity refers to living and belonging to a community, cohesive groups, or organizations. This is closely related to social norms which are reflected in the family, school, workplace, religion and social interactions and relationships.

The cultural dimension *Masculinity* includes two poles: high *Masculinity* (masculine pole) to low *Masculinity* (feminine pole). A society is on the masculine pole "when emotional gender roles are clearly distinct: men are supposed to be assertive and focused on material success, whereas women are supposed to be more modest, tender, and concerned with the quality of life" (Hofstede et al., 2010, p. 140). A society is on feminine pole "when emotional gender roles overlap: both men and women are supposed to be modest, tender, and concerned with the quality of life" (Hofstede et al. 2010, p. 140). Consequently, the *Masculinity* dimension refers to the distribution of roles between the genders, the "power" of a gender in society, assertive masculine patterns and their reflection in the upbringing of children. In general, an elevated masculine index establishes a significant gender difference regarding life opportunities and the established roles for men and women.

Finally, the last dimension, *Uncertainty Avoidance* dimension, measured from weak to strong, is defined as how "the members of a culture feel threatened by ambiguous or unknown situations" (Hofstede et al. 2010, p. 191). Thereby, the extent to which a society, organization or group is based on social norms, rules and procedures to mitigate or cope with uncertain future circumstances. The countries exhibiting high levels of *Uncertainty Avoidance* maintain rigid codes of belief and behaviour, and are intolerant of unorthodox behaviour and ideas. In these cultures, there is an emotional need for rules, even if the rules never seem to work.

Over the years, this model has been updated. During the 80's, Bond (cited by Hofstede et al. 2010) studied Asian culture, creating a list of basic values for Chinese population. In his results, a new dimension appeared.

This new dimension, called *Long-Term*, was included in the original model. It was defined as:

Long-term orientation stands for the fostering of virtues oriented toward future rewards, in particular perseverance and thrift. Its opposite pole, short-term orientation, stands for the fostering of virtues related to the past and present in particular, respect for tradition, preservation of “face” and fulfilling social obligations (Hofstede et al. 2010, p. 239).

In 2010, Hofstede, et al. generated two new cultural dimensions: *Pragmatic*, and *Indulgence*. However, *Pragmatic* correlated strongly with *Long Term Orientation*, although the constructs were not synonyms. *Indulgence* includes two poles: high *Indulgence* (indulgent pole) to low *Indulgence* (restraint pole). The societies on indulgent pole have “tendency to allow relatively free gratification of basic and natural human desires related to enjoying life and having fun” (Hofstede et al., 2010, p. 281). Its opposite, restraint pole reflects “conviction that such gratification needs to be curbed and regulated by strict social norms” (Hofstede et al., 2010, p. 281).

In the present study, we did not take into account *Long Term Orientation* nor *Pragmatic*. On the one hand, the *Long-Term Orientation* dimension has an Asian origin, therefore we consider that it needs to be validated

over more societies around the world. Meanwhile, *Pragmatic* is still too analogous with *Long Term Orientation*, and the difficulty to explain the conceptual differences among them force us to reject both. Consequently, we only consider those variables with a stronger crosswise character (Hofstede et al. 2010): *Power Distance*, *Individualism*, *Masculinity*, *Uncertainty Avoidance*, and *Indulgence*.

Based on Hofstede’s cultural dimensions, the GLOBE Project (Northouse, 2012) classified countries in 10 cultural clusters after studying 62 worldwide societies: Anglo, Germanic Europe, Nordic Europe, Latin Europe, Eastern Europe, Latin America, Sub-Saharan Africa, Middle East, Confucian Asia and Southern Asia (House, Hanges, Javidan, Dorfman, & Gupta, 2004).

We can observe that *Power Distance* is high in Southeast Asia, Middle East, Eastern Europe, and Latin America countries and low in Nordic Europe, and Germanic countries. *Individualism* is high in Anglo, Nordic and Germanic countries and low in Latin America, Confucian, Southern Asia, Sub-Saharan Africa countries. On *Masculinity* dimension, the highest scores correspond in all cases to the moderate range of the scale. In this sense, the highest punctuation refers to Anglo countries, and the lowest punctuation are in Nordic countries. *Uncertainty Avoidance* is high in Eastern Europe, Latin America,

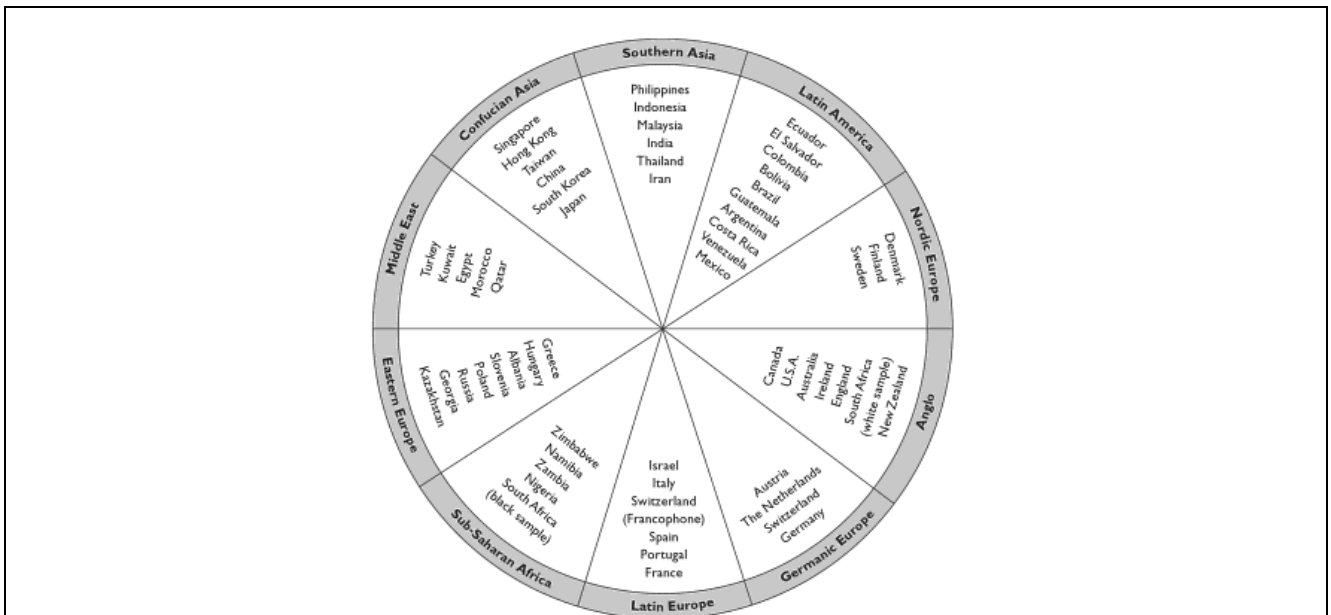


Figure 1. Globe Project’s country clusters based on Hofstede’s cultural dimensions (Source: Northouse, 2012, p. 390).

Latin Europe and Middle East. Although, Nordic, Anglo and Sub-Saharan countries have lowest punctuations, these are in the medium range of the scale. *Indulgence* scores are highest in Latin America, Anglo and Nordic Europe countries; and low in Middle East and Eastern Europe countries.

Considering child pornography as a global social problem (Internet Watch Foundation [IWF], 2010), it is important to include cultural variables, as considered and well documented in social psychology research (Smith, Bond, & Kağıtçıbaşı, 2006). In this sense, the present study aims to explore whether this variable has been included in child pornography studies. Thus, this research explores cultural aspects included in literature as key variables to analyse child pornography crimes, developing tools for the police assessment to improve the predictions of risk factors in aggressors (Dando, & Oxburgh, 2016).

Method

Procedure

In this paper, we selected those articles published in scientific journals between 2003 and 2016. The study begins one year before of the appearance of Web 2.0 (International Telecommunication Union, [ITU], 2009).

We analyse articles included on the Web of Science®, due to the fact that it allows access to the world’s leading scholarly literature in the sciences, social sciences, arts, and humanities.

The key words for the search were organized in relation to three areas: child sexual abuse, cyberspace, and cultural aspects, following the EU Safer Internet Project ROBERT (Ainsaar & Löf, 2011). Additionally, we added AND *cultur*, AND race, and AND etnicit* in order to detect papers that analysed such intercultural and/or ethnical differences.

The combination of criteria was based on the principles of the Boolean search using AND to find articles incorporating both elements of the term, OR to broaden the search to any element and * as an indication of truncated keywords. We also examined meta-analysis and systematic reviews of published studies in order to obtain additional information.

Exclusion criteria were: studies with reference to abuses that occur in non-virtual environments (hands-on), evaluation of physical indicators of sexual abuse, those relating to other types of child abuse or those documents related with technological or computer forensic analyses advances.

The best search option was *Child pornography AND Internet* because it represents broadly the research topic with a total of 101 documents found. Additionally, 475 child pornography papers (not combined) were analysed to obtain those which have not appeared in the combined search, and other 5 extra papers were added. However, we selected 19 new documents with combined search *Child pornography AND Child Sexual Abuse*. We did not include the documents found in the not combined search *Child sexual abuse*, to exceed the purpose of this paper.

Table 1

Cuartiles de las revistas de psicología jurídica incluidas en las bases de datos JCR y SJR del año 2015

Cultural Clusters	PD	IDV	MAS	UAI	IND
Eastern Europe	71.3	43.5	57.3	88	32.2
Middle East	74.0	33.3	45.8	78.3	26.0
Confucian Asia	65.7	24.3	58.3	52.2	34.5
Southern Asia	78.5	30.2	48.8	48.5	41.3
Latin America	69.0	20.8	52.4	82.9	81.7
Nordic Europe	27.3	69.3	15.3	37.0	68.3
Anglo	35.6	80.6	61.4	44.7	68.4
Germanic Europe	27.5	67.8	57.8	61.0	57.0
Latin Europe	53.5	57.2	48.5	82.8	38.8
Sub-Saharan Africa	62.5	32.5	40.0	47.5	42.0

Source: own elaboration based on data from Hofstede (2016).

Notes. PD=Power Distance; IDV= Individualism; MAS=Masculinity; UAI=Uncertainty Avoidance; IND=Indulgence.

Results

A total of 125 documents were analysed. Only 50 referred to cultural aspects and corresponded to 30 different countries, located in eight different clusters. The most frequent was the Anglo cluster ($n = 39$, 78 %), followed by Germanic ($n = 6$, 12 %), Eastern Europe ($n = 4$, 8 %), Confucian, Latin Europe and Nordic ($n = 3$, 6 %, in each of them). The less represented clusters were Latin America and Middle East ($n = 1$, 2 %, in each of them). Most of the studies were carried out firstly with aggressors, and victims were in the background.

The detailed analysis showed that 23 of the 50 articles (46 %) indicated the birth country of aggressors. Sorted by frequency, they were: United States and United Kingdom ($n = 6$, 26.1 %), Canada ($n = 3$, 13 %), Switzerland ($n = 2$, 8.7 %), and Australia, Croatia, Germany, Netherlands, Sweden and Turkey ($n = 1$, 4.4 %). The highest proportion of studies ($n = 16$, 69.6 %) analysed aggressors from the Anglo cluster followed by the Germanic cluster ($n = 4$, 17.4 %).

As for the race of the aggressors, 17 (34 %) of the documents analysed this variable. Once again, the ma-

jority of them were carried out in the United States ($n = 13$, 76.5 %), followed by studies from United Kingdom ($n = 2$, 11.8 %), Australia, Belgium and New Zealand ($n = 1$; 5.9 %). The detailed results showed that 12 (70.6 %) of the 17 documents considered the “White”, “Caucasian”, “Anglo-Australian” or “New Zealand Europe” categories, being in all of them the race most represented. From the total of 17 documents related with the race of aggressor, only one (Schmidt, Gykiere, Vanhoeck, Mann, & Banse, 2014) was not using an Anglo sample but a Germanic one.

Other ethnical origins were considered in these studies for example: “African American” ($n = 7$, 41.2 %), “Asian” or “Pacific Islander” ($n = 6$, 35.3 %), and other autochthonous minorities like “Native Americans”, “Maoris” or “Alaskan” with the same percentage ($n = 5$, 29.4 %), or “Hispanic” ($n = 4$, 23.5 %).

Regarding the victims, it is important to note that included papers refer to victims’ characteristics when analysing material, and they never studied victims directly. Birth country of victims was included in 11.8 % ($n = 6$) of the studies, as being mainly of United States ($n = 4$, 66.7 %), one from Turkey and one from Greece (16.7 %).

Table 2.

Analysis of implicit or explicit reference to cultural aspects by countries of studies.

Country or area of study	Cultural Cluster	Reference	Aggressor		Victim/ Material		Cultural Comparisons
			Country	Race	Country	Race	
Australia	Anglo	Amstrong & Mellor (2016)	A	P	A	A	A
Australia	Anglo	Hinkson (2009)	A	A	A	A	P
Australia	Anglo	Shats & Faunce (2008)	P	A	A	A	A
Belgium	Germanic*	Schmidt, Gykiere, Vanhoeck, Mann, & Banse (2014)	A	P	A	A	A
Canada	Anglo	Babchishin, Hanson, & VanZuylen (2015)	P	A	A	A	A
Canada	Anglo	Kingston, Fedoroff, Firestone, Curry, & Bradford (2008)	P	A	A	A	A
Canada	Anglo	Woodworth, Freimuth, Hutton, Carpenter, Agar, & Logan (2013)	P	A	A	A	A
Croatia	Eastern Europe*	Stasevic & Ropac (2005)	P	A	A	A	A
Czech Republic	Eastern Europe*	Diamond, Jozifkova, & Weiss (2011)	A	A	A	A	P
Denmark	Nordic						
Japan	Confucian						

Note. A= Absence; P= Presence; *Belgium, Croatia and Czech Republic were not included on the GLOBE Project. However, we allocated into a cultural cluster, because per Hofstede’s data (2016), each of these countries have similar scores with cluster assigned.

Table 2 (continue).

Analysis of implicit or explicit reference to cultural aspects by countries of studies.

Country or area of study	Cultural Cluster	Reference	Aggressor		Victim		Cultural Comparisons
			Country	Race	Country	Race	
England and Wales	Anglo	Wakeling, Howard, & Barnett (2011)	P	A	A	A	A
Germany	Germanic	Domberta, et al. (2016)	P	A	A	A	A
Greater London Area	Anglo	Webb, Craissati, & Keen (2007)	P	A	A	A	A
Greece	Eastern Europe	Chryssi, Dionysia, & Vasiliki (2012)	A	A	P	A	A
Japan	Confucian	Zanghellini (2009)	A	A	A	A	P
Netherlands	Germanic	Buschman, Bogaerts, Foulger, Wilcox, Sosnowski, & Cushman (2010)	P	A	A	A	A
New Zealand	Anglo	Merdian, Curtis, Thakker, Wilson, & Boer (2014)	A	P	A	A	A
Sweden	Nordic	Seto, Hermann, Kjellgren, Priebe, Svedin, & Langstrom (2015)	P	A	A	A	A
Switzerland	Germanic and Latin Europe	Aebi, Plattner, Ernest, Kaszynski, & Bessler (2014)	P	A	A	A	A
Switzerland	Germanic and Latin Europe	Frei, Erenay, Dittmann, & Graf (2005)	P	A	A	A	A
Turkey	Middle East	Erdogan, Tufan, Karaman, Atabek, Koparan, Ozdemir, et al. (2011)	P	A	P	A	A
United Kingdom	Anglo	Al Mutawa, Bryce, Franqueira, & Marrington (2015)	A	P	A	A	A
United Kingdom	Anglo	Elliot, Findlater, & Hughes (2010)	P	A	A	A	A
United Kingdom	Anglo	Jewkes (2010)	A	A	A	A	P
United Kingdom	Anglo	Long, Alison, Tejeiro, Hendricks, & Giles (2016)	P	A	A	A	A
United Kingdom	Anglo	Middleton, Elliott, Mandeville-Norden, & Beech (2006)	P	A	A	A	A
United Kingdom	Anglo	Quayle & Jones (2011)	A	A	A	P	A
United Kingdom	Anglo	Winder, Gough, & Seymou-Smith (2015)	P	A	A	A	A
United States	Anglo	Babchishin, Hanson, & Hermann (2011)	A	P	A	A	A
United States	Anglo	Basbaum (2010)	P	A	A	A	A
United States	Anglo	Clevenger, Navarro, & Jasinki (2016)	A	P	A	A	A
United States	Anglo	Faust, Bickart, Renaud, & Camp (2015)	A	P	A	A	A
United States	Anglo	Magaletta, Faust, Bickart, & Mclearn (2014)	A	P	A	A	A
United States	Anglo	Mitchell, Finkelhor, Jones, & Wolak (2010)	P	P	A	A	A
United States	Anglo	Mitchell, Finkelhor, Jones, & Wolak (2012)	A	P	A	P	A
United States	Anglo	Mitchell, Finkelhor, & Wolak (2007a)	A	A	P	P	A
United States	Anglo	Mitchell, Finkelhor, & Wolak (2007b)	A	A	P	A	A
United States	Anglo	Mitchell, Jones, Finkelhor, Wolak (2011)	P	A	A	A	A
United States	Anglo	Mitchell, Wolak, & Finkelhor (2007)	A	A	P	P	A
United States	Anglo	Navarro & Jasinski (2015)	A	P	A	A	A

Country or area of study	Cultural Cluster	Reference	Aggressor		Victim		Cultural Comparisons
			Country	Race	Country	Race	
United States	Anglo	Owens, Eaking, Hoffer, Muirhead, & Shelton (2016)	A	A	A	P	A
United States	Anglo	Ray, Kimonis, & Seto (2014)	A	P	A	A	A
United States	Anglo	Seigfried-Spellar (2014)	P	P	A	A	A
United States	Anglo	Seigfried-Spellar & Rogers (2010)	A	P	A	A	A
United States	Anglo	Shelton, Eakin, Hoffer, Muirhead, & Owens (2016)	A	P	A	A	A
Czech Republic	Eastern Europe*						
France	Latin Europe						
Germany	Germanic						
Italy	Latin Europe						
Japan	Confucian	Steel (2015)	A	A	A	A	P
Netherlands	Germanic						
Poland	Eastern Europe						
Sweden	Nordic						
United Kingdom	Anglo						
United States	Anglo	Wolak, Finkelhor, & Mitchell (2011)	P	P	A	A	A
United States	Anglo	Wolak, Finkelhor, & Mitchell (2012)	A	A	P	A	A
United States	Anglo	Wolak, Finkelhor, Mitchell, & Jones (2011)	P	A	A	A	A
United States	Anglo	Wurtele, Simons, & Moreno (2014)	A	P	A	A	A
Argentina	Latin America						
Bolivia	Latin America						
Brazil	Latin America						
Colombia	Latin America						
Chile	Latin America	Delgado-Coto, & França-Tarragó (2014)	A	A	A	A	P
Ecuador	Latin America						
Paraguay	Latin America						
Peru	Latin America						
Venezuela	Latin America						
Uruguay	Latin America						

Note. A= Absence; P= Presence; *Czech Republic was not included on the GLOBE Project. However, we allocated into a cultural cluster, because per Hofstede's data (2016), this country has similar scores with cluster assigned.

As for the race of the victims, five papers indicated it, four of them developed in the United States and one in the United Kingdom, being the most common the white race ($n = 4$, 80 %).

Except for the analysis of race and cultural clusters, during the period under consideration, only six studies (12 %) analysed the existence of cultural differences and their impact in the child pornography area. From Hofstede's cultural dimensions' point of view, some information can be seen in the six studies that might justify a cultural facilitator profile of child pornography.

Related to *Power Distance*, the study of Jewkes (2010), focused on the Anglo cluster, justifies that social networking sites and mobile phones simply offer a new means and a new lexicon with which to explore their identities, including their psycho-socio-sexual make-up, and exert power over their peers. Even though United Kingdom nowadays have low levels of *Power Distance* (35/100) (Hofstede, 2016), Jewkes (2010) analysed the effect of Victorian values, pointing out that "the scale of abuse perpetrated by priests, teachers, local authority-employed careers, police officers and other 'upstanding' members of the community has, in recent years, had to be acknowledged by the media and other social institutions" (p. 14).

Regarding *Individualism*, Hinkson's (2009, pp. 209-210) research in Australia (Anglo cluster) - one of the most Individualistic societies (90/100) (Hofstede, 2016) - affirms that: In face-to-face relations intimacy is achieved as a result of a two-way flow of speech and actions in which a self who is physically present to another tests ideas, insights, orientations against those of the other, who responds. Through such densely sensual interaction recognition occurs, trust is established, understandings are reached. In mediated intimacy, by contrast, the self unilaterally produces meanings for an image of another who will never respond. Here the self is compelled to be actively engaged in the production of identity in a way that is without historical precedent" (Bauman 2001; Giddens 1991).

Related to *Masculinity*, Seigfried-Spellar and Rogers (2010) show that 55.6 % of Internet child pornography

female users under study selected Asian as racial identity. Asian clusters have medium levels of *Masculinity*, being Japan the country which are in the masculine pole (95/100), while Taiwan are in the opposite pole, the feminine one (45/100) (Hofstede, 2016).

Finally, *Uncertainty Avoidance* and *Indulgence* was associated to norms that prohibited child pornography. The study of Diamond, Jozifkova, and Weiss (2011), in Czech Republic, with high levels of *Uncertainty Avoidance* (74/100) and low *Indulgence* (29/100) (Hofstede, 2016), showed that where: Child-pornography was readily available without restriction the incidence of child sexual abuse was lower than when its availability was restricted. As with adult pornography appearing to substitute for sexual aggression everywhere it has been investigated, we believe the availability of child porn does similarly (Diamond et al., 2011, p. 1042).

In other sense, Delgado-Coto and França-Tarragó (2014) reported a decrease in the average rate of downloading of child pornography material in ten different countries of Latin America, with high levels of *Uncertainty Avoidance* (ranging between 67/100 and 99/100) and *Indulgence* (ranging between 53/100 and 100/100).

Discussion

Due to the Internet expansion around the world, child pornography is considered internationally as a crime, but we are uncertain of whether culture has some impact on it. In this sense, the aim of this research was to explore in scientific literature cultural variables taken into account by child pornography studies.

During the period under consideration (2003-2016) no research analysed the possible cultural differences and their impact in the child pornography area. The ethnical origins data was presented for describing the sample, but the results were not discussed on it. These results show the difficulty to use an exhaustive and exclusive category of race, as pointed out by Omi and Winant (1994). According to these authors "race categories are themselves formed, transformed, destroyed, and reformed" (Omi & Winant, 1994, p. 61).

Specifically, in relation about the studies analysed, only six included cultural aspects other than race and country. From Hofstede's cultural dimensions' point of view, some of the information included in those studies might be led to justify that some cultural influences could be facilitating the use of child pornography.

Regarding the enabling conditions due to cultural dimensions of child abuse, it is important to highlight that *Power Distance* can be manifested at the individual level in the employment context, adopting roles of domination and authority. Some studies (Frei, Erenay, Dittmann, & Graf, 2005) pointed out this aspect involving power or domination over others.

In countries with high scores in *Individualism*, it could be hypothesized that a lower social control would be largely facilitate penalized behaviours as compare to collectivist culture countries. Additionally, the difference between self-disclosure behaviours in face-to-face and computer-mediated relationships is more pronounced among individuals low in *Individualism* than those high in *Individualism* (Tokunaga, 2009).

In countries with high levels of *Masculinity* men are supposed to be assertive and ambitious and women tender and taking care of others and relationships (Hofstede et al. 2010). In this sense, it could be supposed that, especially in countries with high level of *Masculinity*, the incidence of female aggressors would be low. Additionally, some studies pointed out that females use computers less than males (ITU, 2013) because females score more on anxiety towards this kind of technology (Fariña, Arce, Sobral, & Carames, 1991; Tsourela & Roumeliotis, 2015).

Countries with high levels of *Indulgence* and low levels of *Uncertainty Avoidance* could have a sense of "normality" in front of this kind of behaviours. Oppositely, countries with low levels of *Indulgence* and high levels *Uncertainty Avoidance* identify and clearly differentiate "correct" and "deviant" behaviours. From this point of view, Delgado-Coto and França-Tarragó (2014) emphasize that on these cultures which high pursuit of pleasure, the person's dignity, as a reference value, is displaced by money or other desires (in this context,

children). For that reason, legislation plays a key role, because it has a direct influence on child pornography aggressors' behaviour, as could be observed in Steel's (2015) research. In this sense, we could not forget others existing ways to obtain this kind of material, especially those considering part of the *Hidden Internet*, which are difficult to legislate.

Nevertheless, at the same period (2010-2012), the International Centre for Missing & Exploited Children (ICMEC, 2010, 2012) registered an increase of legislation specifications in most of the countries considered in the Delgado-Coto and França-Tarragó (2014)'s research sample. In this regard, Steel (2015) found in July 2013 a massive drop in child pornography searches on browsers like Google or Bing, coinciding with the announcement of this companies taking measures to combat child pornography. Whereas, in other web browser which the searches were not prosecuted (i.e., Yandex), the number of searches did not decrease. Thus, these studies highlight the importance of legislation in considering child pornography as a crime and distinguish it from social acceptances sexual behaviours.

Future research on this topic, should include the empirical analysis of Hofstede's dimensions and their effect on online child pornography. Specifically, the *Power Distance* dimension implies that power plays a more important role in the structuration of human relationships in certain societies with 'high' in *Power Distance*. It can be expected that people in roles involving some type of authority (teacher, social worker, priest, police officer, monitor in sports or social activities) will exert their power with less restrictions and perhaps less control (less need for accountability).

Societies with low scores in *Individualism* (with higher social control) and *Indulgence* (where the gratification of basic and human drives is suppressed and regulated by means of strict social norms) will present a lower level of penalized behaviours, which might affect the presence and magnitude of convictions, allegations and penalties. Likewise, can be expected to present a higher level of social awareness regarding the dangers posed by child abuse, with more frequent and extended campaigns at schools, more public debate, etc. In this context, children

can be expected to be less easily exposed to unsupervised access to strangers.

The relationships within the family may also play a major role in the access relevance as a prioritisation variable. On one hand, aspects such as trust or intimacy are higher in collectivistic societies, and research has shown that the percentage of incest in the total of child sexual abuse is lower in these societies than in more individualistic ones (Romeo, Yepes-Baldó, Soria, & Lovelle, 2013). On the other hand, second generation immigrants would act under the cultural pattern they were born into, or their culture of reference when it differs from their parents' culture origin. For this reason, we consider important to analyse this target to better assess which is the cultural pattern of reference.

Finally, it is important to note that Holt, Blevins and Burkert (2010) claim that there is a subculture influenced by the Internet. It would be interesting to further explore the characteristics of the users of these networks to confirm whether there are cultural differences, even though we did not find it in our analysis.

The major contribution of this review was to highlight the importance to incorporate culture as a variable in the police assessment in order to improve the predictions of risk factors in aggressors. For example, this research contributes to hypothesize probable cultural differences when using tools as the Kent Internet Risk Assessment Tool (KIRAT) (Long, Alison, Tejeiro, Hendricks, & Giles, 2016) in the European context. However, we consider that the cultural differences will appear easily if the studies compare societies with one or more dimensions in opposite poles. This research could influence in studies about how improve social prevention and intervention programmes with aggressors, but the cultural point of view seems no to be the main worry for this kind of research.

Regarding limitations of this work, it was primarily limited by the countries where this topic is more studied, like Anglo countries, principally United States. This limitation produces a bias in the results, and it could seem that child pornography crimes are more frequent in Anglo cluster, but it would be a tautological error. Addi-

tionally, it is important to point out the difficulty to access "grey papers". We noted that much about this topic is published by government's administrations or non-governmental organizations, so the majority of these reports are not indexed in scientific database and we did not consider this secondary data, adding a new bias in our results.

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