

Fear of Crime and Cultivation Effect. Social and Psychological Predictors*

Miedo al crimen y efecto de cultivo. Predictores sociales y psicológicos

Received: 28 August 2015 | Accepted: 07 August 2017

JUAN DIEGO GARCÍA-CASTRO^a

Universidad de Costa Rica, Costa Rica

ORCID: <http://orcid.org/0000-0002-9662-6547>

ROLANDO PÉREZ-SÁNCHEZ

Universidad de Costa Rica, Costa Rica

ABSTRACT

Within the framework of the study of cultivation, the present research attempts to study the association between general TV consumption, particular TV news, and fear of crime. The analysis considers narrative transportation and system justification as psychological predictor variables; in addition, sex, level of crime in the area of residence, and social class as social covariates. Participants were 516 young ($M = 20.5$ years, $SD = 4.7$) Costa Ricans. A hierarchical regression analysis (stepwise) was conducted. Results indicated that people who experienced more narrative transportation, less system justification, women, and low social class, have higher levels of fear of crime. Results are discussed from the need to expand the cultivation hypothesis of fear of crime.

Keywords

fear of crime; cultivation; narrative transportation; system justification; social class.

RESUMEN

En el marco de la teoría del cultivo, la presente investigación estudia la asociación entre el consumo general de televisión, noticias televisivas y el miedo al crimen. El análisis considera el transporte narrativo y la justificación del sistema como variables predictoras psicológicas; además, el sexo, el nivel de delincuencia en el área de residencia y la clase social como covariables sociales. Los participantes fueron 516 jóvenes costarricenses ($M = 20.5$ años, $DE = 4.7$). Se realizó un análisis de regresión jerárquica (stepwise). Los resultados indican que las personas que experimentaron más transporte narrativo, menos justificación del sistema, las mujeres y la clase social baja tienen mayores niveles de miedo al crimen. Se discuten los resultados a partir de la necesidad de ampliar la hipótesis de cultivo del miedo al crimen.

Palabras clave

miedo al crimen; cultivación; transporte narrativo; justificación del sistema; clase social.

^a Correspondence author. Email: juandiego.garcia@ucr.ac.cr

How to cite : García-Castro, J. D. & Pérez-Sánchez, R. (2018). Fear of Crime and Cultivation Effect. Social and Psychological Predictors. *Universitas Psychologica*, 17(3), 1-14. doi: <https://doi.org/10.11144/Javeriana.upsy17-3.fcce>

The distance between fear of crime and objective victimization is an international tendency. Within an oversized perception of crime, people tend to increase and

distort their real probabilities of becoming victims of it (Wyant, 2008).

Crime in Costa Rica is one of the main concerns of its inhabitants and the most discussed and presented in the media. Nine out of ten people think the country is threatened by crime and nearly half think their immediate environment is unsafe. However, the perception of crime is greater than what actually happens. The gap between the perceived likelihood of being victim of a violent crime over the actual probability is 2.1 times higher in the case of property crime, 16.7 for physical violence and 11 times for emotional violence (García-Castro, 2012).

In Costa Rica, television is the most consumed means of communication. Over 90% of the population has a TV set at home (Instituto Nacional de Estadística y Censos [INEC], 2011). Its programming of shows is mainly composed of foreign productions, fundamentally from the United States or Latin American countries. Sitcoms and newscasts are found within the domestic production, being the latter the most watched. In newscasts, crime news take most of the airtime (Fonseca & Sandoval, 2005).

Recently, in international research, fear of crime has received considerable attention from social scientists who perceive the phenomenon as a bigger problem than crime itself due to its implications on the levels of anxiety, depression, interpersonal distrust, welfare, and mental health in the general population (Scarborough, Like-Haislip, Novak, Lucas, & Alarid, 2010).

Although an ongoing discussion exists on the conceptualization and operationalization of fear of crime, the literature recognizes its definition as having a negative emotional reaction generated by crime or symbols associated with it (Ferraro & LaGrange, 1987; Karakus, McGarrell, & Basibuyuk, 2010). Emotional responses are connected to the situations and circumstances that cause fear as well as the cognitive process of crime perception, which can also cause fear (Rountree & Land, 1996; Scarborough et al., 2010).

The particular association between crime and perceived victimization has been linked to media

consumption, especially watching TV. The main approach that has focused on studying this phenomenon is the so-called cultivation theory.

Cultivation theory

This approach indicates that regular exposure to television influences the perception people have about the world in which they live. It has been found that people who watch more TV are more likely to assume the version of reality television shows. The way humans conceive themselves, their biography, their immediate society, or the world, is also influenced by how time is spent, the roles assumed as well as the images and stories offered in the media. Frequent exposition to crime news affects how people feel and perceive fear of crime (Kohm, Waid-Lindberg, Weinrath, O'Connor, & Dobbs, 2012; Shanahan & Morgan, 2003).

Television is a system of messages that provides patterns of images and repetitive stable ideologies that are practically unavoidable. Exposure to those images and ideologies affects the audience that consumes them. The notion of "cultivation" comes from the metaphor that the greatest impact of television materializes through the repetition of images. Much of what people know, or think they know, has not been personally experienced; they know it through stories they have heard. Television becomes one of the major storytellers of our time (Shanahan & Morgan, 2003).

The impact television has in its audience is not mechanical. The cognitive process, through which cultivation works, happens to be complex. Recently, the heuristic processing model has attracted much attention from researchers to explain this complexity (Riddle, 2010). Heuristic availability or cognitive accessibility is a shortcut people use, when employing information that is easily accessible in memory, to judge the frequency of events. Due to frequency and recent exposure to vivid images, people who watch great amounts of television will have television constructs easily accessible in memory. They will use them when estimating the frequency of events they have previously watched in the messages they have consumed (Shrum, 1996).

Within the literature on cultivation theory, empirical research has found a relationship between television news consumption and being less likely to withstand the fact of having a neighbor with mental disabilities (Diefenbach & West, 2007), having more willingness to accept the use of DNA evidence to solve crimes (Brewer & Law, 2010), having lower levels of trust associated with higher risk perception (Salmi, Smolej, & Kivivuori, 2007), having more ethnic stereotypes (Lee, Bichard, Irey, Walt, & Carlson, 2009), perceiving the world as a threatening place (Appel, 2008), and having more fatalistic beliefs about cancer prevention (Niederdeppe, Franklin, Goldstein, & Pribble, 2010).

Nevertheless, studies on the relationship between TV news consumption and the cultivation of fear of crime are not conclusive. The relationship between watching crime news and fear of crime is supported by several studies, but the relationship between watching general TV news or general TV and fear of crime is less well-established (Doyle, 2006; Kohm et al., 2012). For instance, it has been found that regardless of crime rates, watching crime news relates to an increase on fear and concern about crime (Romer, Jamieson, & Aday, 2003). Conversely, results also show that television news affects what people consider to be important; however, it does not cultivate fear (Gross & Aday, 2003). Recently, it has been found that people who watch media that portray vivid violence demonstrate higher violence perception (Riddle, 2010). The contradiction in the results clarifies the need of a thorough study in the area.

The main results of cultivation theory have been based on the assumption that the effect of cultivation is the result of exposure to television content in general, rather than the effect of consumption of specific TV genres (Morgan & Shanahan, 2010). However, the cultivation effect theory should be linked to different areas of social cognition. Therefore, keeping this assumption does not reveal/expose the particularities of cultivation in specific areas of perception, evaluation or assessment of the social world. In this sense authors like Eschholz, Chiricos, and Gertz (2003) or Bilandzic and

Buselle (2008), have focused on the study of the role of specific genres in shaping worldviews of audiences, including those linked to fear of crime.

Cultivation theory has experienced a major shift towards psychological processes in the last decades (Bilandzic & Busselle, 2008). Transportation theory proposes stronger cultivation effects when the viewer gets psychologically involved into the experience of the TV show he or she is watching (Green & Clark, 2012).

Narrative transportation theory

Narrative transportation stands for the individual immersion in a content. The process involves three basic psychological components: attention, emotional implication, and cognitive ability. When facing the news of a criminal incident, individuals, at a first glance, respond intentional and consciously attentive. Once the individuals are aware, they have the opportunity to dive into the narration. The emotional implication entails the involvement of feelings into those developed in the news' story. As individuals are transported into the narrative, they make emotional connections with that within the narrative. Finally, through images, people use their imagination to create the scene, the protagonist, and other characters involved (Bilandzic & Busselle, 2008; Green & Brock, 2000).

Narrative transportation persuades the TV viewer by reducing negative cognitive responses, the realism of the experience, and strong emotional responses. This leads to a lower critical analysis of the arguments and less negative thoughts when emotions are positive. If emotional responses are negative, as it could be in crime news, persuasion through solving events becomes possible (Edson, 2004; van Laer, de Ruyter, Visconti, & Wetzels, 2014).

In the Costa Rican context, it is persuaded by means of televised police repression (Fonseca & Sandoval, 2005). Some investigations point out the association between fear of crime and conservative attitudes (Holbert, Shah, & Kwak, 2004; Snyder et al., 2011). It is considered that the association between narrative transportation, fear of crime, and cultivation will in turn be

linked to the degree of legitimacy of the status quo. The system justification theory precisely aims to study people's tendency to legitimize the status quo (Jost & Thompson, 2000).

System Justification Theory

The System Justification Theory has been developed during the last two decades by American social psychology, it has led to numerous investigations and is well extended within the academic community. It proposes that people conceive the social system as necessary, natural, fair, and inevitable (Jost, Federico, & Napier, 2009; Napier, Thorisdottir, & Jost, 2010).

People defend the status quo because they need to minimize uncertainty, maintain a shared reality with others, and satisfy existential and relational needs. It is a palliative role which generates more self-esteem and psychological well-being (Jost et al., 2009; Napier et al., 2010).

Human beings try to avoid fear because it is an enormous psychic burden, which causes stress and it can even be traumatic and an immobilizer (Pennebaker & Stone, 2004). Traditionally, the first source people use to deflect that feeling is personal control (Presson & Benassi, 1996; Kay, Gaucher, Napier, Callan, & Laurin, 2008). The system justification theory states that people defend the status quo to minimize uncertainty and feel more control over their lives.

Fear of crime and cultivation: the role of narrative transportation and system justification

Within the cultivation theory and the prediction of fear of crime, this research attempts to analyze the relationship between the amount of TV and in particular TV news consumption. It is considered necessary to extend the cultivation hypothesis with new variables that may help explaining the cultivation of fear in the general population and that have not been, so far, empirically associated with fear of crime such as narrative transportation (Green & Brock, 2000; Green & Clark, 2012) and beliefs about system justification (Jost & Thompson, 2000).

Television news shows in general, and crime news in particular, could make some viewers experience narrative transportation and system justification. The study of the role of transportation and system justification within

cultivation framework could contribute to understand the association between watching television and fear of crime.

The association between cultivation, narrative transportation and system justification this study is interested in investigating, is not the product of the specificity of Costa Rican television offer. It is an interaction that can occur similarly in other socio-cultural context(s).

The key feature of narrative transportation is the sense of emotional immersion. This condition facilitates persuasion regarding the reality provided by crime news (Bilandzic & Buselle, 2008, 2011). As research on the effect of emotions on cognitions has shown (Fiske & Taylor, 2013), as well as research on persuasion, particularly from the perspective of the Elaboration Likelihood Model (Petty, Priester, & Briñol, 2002), the type of emotion or mood presented at a given time defines the type of evaluation, judgment or acceptance of reality. In the case of narrative transportation, the emotional immersion evoked by crime news could be associated with negative emotions linked to fear or anxiety about the crime, which would facilitate the effect of cultivation.

In fact, the effect of cultivation is based on continuous and extended exposure over time to certain media representations of reality, the presence of narrative transportation of emotional response to such news could have a persuasive effect consonant with the content of the news by the uncritical adoption of a representation of the social world, where violence or crime predominates (Bilandzic & Buselle, 2008).

As Green and Brock (2000) state, an immersive experience reduces the possibility of a counter-argument, contributing to cognitive activation of a heuristic process of availability and accessibility (Shrum, 1996), taking as reference the content offered by TV news. It must be considered that the effect of cultivation, promoted by narrative transportation, is a cognitive automatic mechanism, which is neither controlled nor conscious.

People have a natural need to control the environment in which they live. The perception of agency that events do not occur

haphazardly is a basic social motivation (Fiske, 2004). By contrast, the perception of unpleasant uncertainty will create an internal imbalance that can be stressful. However, not all people have enough control over themselves and their life to appeal to inner motivations and seek outside regulations sources that can replace the absence of their personal control. It is then when dealing with a situation that creates fear, such as crime news do, that it becomes necessary to justify the system in which people live.

Against the widespread generalized threat caused by criminality, people may defend the status quo since they need to minimize the distress and anxiety that constant threat provokes (Jost et al., 2009; Napier et al., 2010).

To study the association between narrative transportation, system justification and fear of crime in the framework of cultivation theory, three covariates are considered relevant: gender, social class and area of residence.

The study also seeks to make a deeper analysis on the association of social variables, that, so far, have reported an ambiguous relationship with fear of crime like social class (Rader, Cossman, & Porter, 2012), and level of crime in the area of residence (Scarborough et al., 2010) and to test relations that literature portrays as stable such as gender (Schafer, Huebner, & Bynum, 2006).

It is known that those with higher fear of crime (women and the elderly) are paradoxically less likely to be victims, and this has been conceptualized as the vulnerability perspective. It suggests that fear is greater when the person perceives itself in physical disadvantage against threats, or when people acknowledge themselves more susceptible to be victims of crime than other groups (Scarborough et al., 2010; Wyant, 2008).

Especially in the case of sex, although women are victims of crime to a lesser extent than men, except in sex crimes, investigations report higher fear levels of any type of crime in women (Schafer et al., 2006; United Nations Development Program [UNDP], 2005). It is argued that these results are due to the gender disparity in the distribution of fear in general, and the intense fear that women in particular suffer

of being victims of sexual assault (Schafer et al., 2006).

Literature on the relationship between social class and fear of crime is inconsistent (Rader et al., 2012). Overall, results show that lower class members suffer higher levels of fear of crime (McKee & Milner, 2000; Pantazis, 2000), which can be explained by their propensity to be in dangerous situations and have less material resources to protect against threats (Pantazis, 2000).

In relation to the area of residence, research has given greater importance to the individuals' perception about the area where they live and its structural conditions (Scarborough et al., 2010; Wyant, 2008). Specifically about levels of objective victimization or crime rates, it has been noted that its relationship with fear of crime is not linear, but it is mediated by factors such as social cohesion and community disorder perception (Abdullah, Hedayati, Bahaudian, & Javad, 2012; Villarreal & Silva, 2006).

Thus, the hypotheses guiding this research state that people who are going to possess higher fear of crime (H1) are those that consume more television in general and particular newscasts; (H2) likewise, they report greater narrative transportation in crime news (H3) less beliefs linked to system justification just as (H4) lower class people and women. Finally, (H5) a positive association between the level of crime in the area of residence and the fear of crime is anticipated.

Method

Design

A quantitative, correlational and cross-sectional study was carried out.

Participants

Five hundred and sixteen young Costa Rican students, of Costa Rica's Metropolitan Area, participated in the study. They had an average age of $M = 20.5$ years ($SD = 4.7$), two hundred

and forty eight (48 %) studied in the national technical training system, and two hundred and sixty eight (52 %) were taking general studies at the University of Costa Rica. Two hundred and seventy three (52.9 %) were women and two hundred and forty three (47.1 %) were men. Two hundred and sixty one belonged to lower social class (50.5 %) and two hundred and fifty five belonged to upper social class (49.5 %).

They filled out the questionnaire during class hours with the presence of a researcher who previously explained the research. They were informed of the study's objectives and it was made clear that their participation was voluntary and data processing anonymous.

Instruments

Data were collected through a paper self-administered questionnaire that had an informed consent as its first page. The following measures were included:

Fear of crime. Measured using an adaptation of the fear of crime scale by Ruiz (2007; Ruiz & Turcios, 2009). The measure comprises four items on the degree of fear of crime felt at home, neighborhood, city and country. It assessed personal fear of victimization. Each item had a Likert scale with five options, ranging from 1 = not at all to 5 = a lot. It presented an average reliability of $\alpha = 0.75$, as measured by Cronbach's alpha coefficient. This is the dependent variable.

Narrative Transportation Scale. Narrative transportation was measured with a 16 item scale of a rate response of 1 = does not apply at all, and 5 = applies a lot. It was developed by Green and Brock (2000) and adapted by the authors for TV news reception. It measures the degree of mental and emotional implication as well as the attention given to crime news in newscasts. It features items such as "I imagined myself at the news' scene" and "I paid all my attention to the news as I watched it." It obtained a Cronbach's alpha coefficient of $\alpha = 0.76$. This is an independent variable.

The introductory question was "Think about what happens when you see a news event in

newscasts. On a scale (from) 1-5, where 1 = not applicable at all and 5 = applies a lot. How many of these situations apply to you:"

System Justification Scale. It is an 8-item scale developed by Jost and Kay (2005) that measures the degree to which people have an ideology that legitimizes the economic differences and justifies the economic system they live in. The response scale ranges from 1 = strongly disagree and 5 = strongly agree. It includes items such as "In general, society is fair." and " In the Costa Rican society everyone gets what they deserve." It obtained a Cronbach's alpha coefficient of $\alpha = 0.71$. This is an independent variable.

The introductory question was "Here are a series of sentences to know how you perceive the society. On a scale from 1-5, where 1 = strongly disagree and 5 = strongly agree, please mark with an X the option that best meets your thinking"

Weekly hours spent watching television and newscasts. They were measured through a weekly schedule table. The participant read the instruction "Please, think of the number of hours you spend watching TV during the week. Now make a Schedule with the number of hours watching television, scoring an X in the corresponding hours" and they had to mark the hours spent daily watching television and newscasts. Subsequently, the hours were summed up to obtain the total amount of weekly hours consumed. Those are independent variables.

The use of measures involving cognitive elaboration for the participants are recommended to reduce inaccurate or biased questions (Frey, Benesch, & Stutzer, 2007). The measure used in this research comes from other work done on the subject (Pérez & Torres, 2012).

Level of crime in the area of residence. Data was collected in San José (capital) and San Ramón- Alajuela, which are two locations in the metropolitan area of Costa Rica characterized by different levels of criminality according to the County Safety Index (CSI) (INEC, 2011; UNDP, 2005). The CSI is composed by rates of intentional homicide, robbery and theft, and domestic violence in a range that varies from zero to one. Lower values of the index correspond to low security levels (less secure) and higher values

to higher security levels (safer). San José has a low security level (0.28) and San Ramón has a high security level (0.84) (INEC, 2011; UNDP, 2005). All people lived in the area where the data were collected. This is a co-variable.

Social Class. Social class was measured through the participants' place of study. Data was collected on two opposite places, The National Learning Institute which brings together young working class people who receive technical training and The University of Costa Rica, which is the main university in the country. The interviewees in the University of Costa Rica were first-year college students who did not work and did not present socio-economic assistance or scholarship. In order to contrast the place of study, as a social class predictor, they were asked about their parents' educational level, and an index of educational level was made. The educational level of parents has been presented as a reliable indicator of social class by reasons of its incidence on beliefs, perceptions, lifestyle, behavior, and coping psychological tendencies among people (Stephens, Markus, & Townsend, 2007). The association between the place of study and the parents' educational level showed a significant relationship ($r = 0.28, p < 0.001$). This is a co-variable.

Procedures

First, the battery of instruments were reviewed by experts and analyzed through a series of individual cognitive interviews (Collins, 2003; Smith-Castro & Molina, 2011). People from the places of study were interviewed to clarify concepts, correct questions, concepts or misguided instructions. Second, a pilot test was conducted with a sample of 150 students to improve the questionnaire's final version. Students were contacted in their places of study while they were receiving lessons. Answering the questionnaire took approximately 25 minutes and the data-gathering period lasted one month.

Analysis

The whole analysis was conducted using SPSS 17. First, basic data cleaning was performed. Second, basic descriptive analysis, of the main study's variables, were conducted. Third, scales' psychometric properties were assessed via internal consistency coefficient Cronbach's alpha. Then, variables' simple correlations through the Pearson correlation coefficient were calculated. Finally, in order to estimate the relative weight of predictor variables, in explaining the variance of the degree of fear, a hierarchical regression analysis (stepwise) in three blocks was made. In the first block the social variables: sex, crime levels in the area of residence, and social class were simultaneously entered. In the second block, media consumption variables: amount of weekly hours spent in television and newscasts consumption were entered. In the third block, the psychological variables: narrative transportation and system justification were entered.

Results

Table 1 presents the correlation matrix of the variables.

Table 1
Descriptive statistics, internal consistency coefficients, and bivariate correlations between the study's variables

Variable	1	2	3	4	5	6	7	8
1 Level of Fear	1	0.11**	-0.03	-0.13**	-0.12**	0.19**	0.01	0.08*
2 Sex (0 = woman, 1 = man)		1	0.06	-0.00	0.13**	-0.11**	-0.07	0.14**
3 Area of Residence (0 = rural, 1 = urban)			1	-0.01	0.20**	-0.12**	0.05	0.06
4 Social Class (0 = low, 1 = high)				1	0.10*	-0.05	-0.03	-0.14**
5 System Justification					1	-0.13**	-0.01	-0.03
6 Transportation						1	-0.04	0.18**
7 Television Hours							1	0.27**
8 Newscasts Hours								1

Note.**p < 0.01, *p < 0.05

The degree of fear was significantly associated with sex ($r = -0.11, p < 0.01$), social class ($r = -$

0.13, $p < 0.01$), system justification ($r = -0.12$, $p < 0.01$), narrative transportation ($r = 0.19$, $p < 0.01$), and weekly hours of news consumption ($r = 0.18$, $p < 0.05$). Women and lower-class people showed more fear, they had lower system justification, felt more "transportation", and consumed more weekly newscasts. Table 2 shows the summary of the hierarchical regression (stepwise) results.

Table 2
Summary of hierarchical regression analysis for degree of fear prediction

Variable	B	SE	B
Step 1			
Sex	-0.22	0.06	-0.15***
Social Class	-0.21	0.06	-0.14***
Level of crime in zone of residence	-0.00	0.06	-0.00
Step 2			
Sex	-0.25	0.06	-0.17***
Social Class	-0.19	0.06	-0.13**
Level of crime in zone of residence	-0.00	0.06	-0.00
Television Hours	-0.00	0.00	-0.09*
Newscasts Hours	0.01	0.00	0.09*
Step 3			
Sex	-0.20	0.06	-0.13**
Social Class	-0.16	0.06	-0.11**
Level of crime in zone of residence	0.04	0.06	0.03
Television Hours	-0.00	0.00	-0.08
Newscasts Hours	0.00	0.00	0.05
Transportation	0.19	0.05	0.15***
System Justification	-0.10	0.05	-0.09*

Note. $R^2 = 0.04$ for Step 1 ($p < 0.001$). $R^2 = 0.05$, $\Delta R^2 = 0.012$ for Step 2 ($p < 0.001$). $R^2 = 0.08$, $\Delta R^2 = 0.03$ for Step 3 ($p < 0.001$). *** $p \leq 0.001$, ** $p < 0.01$, * $p < 0.05$.

From the social variables block, sex ($\beta = -0.15$, $p < 0.001$) and social class ($\beta = -0.14$, $p < 0.01$) contributed to the degree of fear within a significant model $F(3, 506) = 7.742$, $p < 0.001$ explaining 4% of the variance. The addition of the block concerning media consumption variables, specifically number of weekly hours of television ($\beta = -0.09$, $p < 0.05$) and newscasts consumption ($\beta = 0.09$, $p < 0.05$) increased the percentage of explained variance in a significant model $F(5, 504) = 5.942$, $p < 0.001$, which explains 5% of the degree of fear variance. Finally, the addition of the third block with psychological variables showed that both system justification ($\beta = -0.09$, $p < 0.05$) and narrative transportation ($\beta = 0.15$, $p < 0.001$) increased the percentage of explained variance in a significant model $F(7, 502) = 6.775$, $p < 0.001$ which explains 8% of the degree of fear variance.

Discussion

Results showed that the number of hours spent watching television and newscasts consumption does not predict fear of crime while controlling for psychological variables. In contrast, predictors of fear of crime confirmed in this research were: people who experienced more narrative transportation, less system justification as women, and low social class.

In social sciences, fear of crime has been studied for more than five decades. Nevertheless, its results are far from being conclusive or all its relationships established (Khom et al., 2012). There is little research outside the western industrialized countries (Karakus et al., 2010), and in general, researchers have recognized so far the necessity to amplify and go deeper into the subject (Scarborough et al., 2010).

The classical cultivation theory, which was the first hypothesis, " (H1) people who consume more hours of television and newscasts will present more fear of crime," was not confirmed. The weekly hours of television and newscast consumption modestly contribute to the prediction of fear of crime and they do not predict fear of crime when narrative transportation and system justification are introduced into the equation of regression model. One of the main criticisms of cultivation theory is its ambiguous empirical demonstration despite its conceptual richness (Shanahan & Morgan, 2003).

With respect to television, it has been argued that it becomes only one source of information among the wide variety of the existent sources (Gross & Aday, 2003). Nonetheless, what people live and perceive as natural is what matters the most in order to cause fear, although, not to cause a widespread perception of threat. Gross and Aday (2003) conclude that the amount of television and TV news consumption causes a widespread perception of threat but not directly fear.

From other perspectives, it has been argued that newscasts affect fear of crime when the news' contents are consistent with experience (Khom et al., 2012). Television and newscasts would

reinforce what people live; however, it would not replace it (Eschholz et al., 2003; Weitzer & Kubrin, 2004). For this reason, this research expanded the cultivation hypothesis, introducing variables that have not been empirically tested before such as narrative transportation (Green & Brock, 2000), and system justification beliefs (Jost & Thompson, 2000).

Recently, in the search for possible variables that may affect the cultivation process, narrative transportation has been considered as an opportunity to go deeper into the effects that media exposure can have on the individual (Bilandzic & Buselle, 2008, 2011). The second hypothesis "(H2) those who report more narrative transportation in crime news experience greater fear of crime" was supported by the results, and it becomes the variable that predicts higher fear of crime.

It seems that the narrative transportation experience reinforces the selection of programs and news that the individual chooses; especially, through the process of transportation and the increasing knowledge on a subject, facilitates the understanding of the stories presented. A greater feeling of narrative transportation will lead to a higher probability of adopting the emotions that the narration develops (Bilandzic & Buselle, 2008, 2011).

The cultivation process has a motivational component that directs people to choose those shows in which they experience higher levels of transportation. The persuasion component predicts that this tendency results in an intense uncritical view of the story consumed, and this guides the adoption of the portrayed worldview, and to experience the emotions that are transmitted (Bilandzic & Buselle, 2008, 2011).

Considering the uncritical view of reality that can cause narrative transportation, the relationship between fear of crime and beliefs on system justification supports the third hypothesis: "(H3) people with less beliefs on system justification will present greater fear of crime", and it is innovative. The two variables are theoretically supported by the cognitive and emotional contribution that justifying the system

give place to stability, balance, and decreasing uncertainty (García-Castro, 2010; Jost et al., 2004); however, until now, their relationship has not been empirically shown.

A possible explanation for the decrease in the fear of crime with system justification becomes that people have a natural need to control the environment in which they live (Fiske, 2004). When the environment appears more threatening, system justification compensates the psychological distress that the threat conveys. It has been shown that system justification contributes to create psychological well-being (Rankin, Jost, & Wakslak, 2009).

The integration of narrative transportation and system justification within the cultivation process in predicting fear of crime could state that a low system justification could be associated with a low societal legitimation supported by crime news that precisely indicate that the government, for example, is deficient in solving this problem. This also occurs when people are prone to narrative transportation increase in the context of watching news.

People with high narrative transportation will be more easily persuaded by watching crime news regarding the presence of a society permeated by crime and supporting low system justification. This could explain the association with fear of crime and cultivation effect. These are possible interpretations that must be further studied. A line of research of great relevance opens.

In fear of crime research, system justification may contribute to clarify the socio-cognitive and ideological relations that occur in the person who experiences fear. In addition, it goes deeper into the psychological consequences that fear of crime produces. Among the socio-demographic variables, the fourth hypothesis "(H4) lower class people and women will present higher fear of crime" was also supported. This result supports the vulnerability perspective.

The incidence of gender is a consistent result that numerous international studies pointed out (Scarborough et al., 2010; Schafer et al., 2006). Women's perception about their vulnerability produces higher levels of fear of crime, which has implications in their daily lives as well as

greater restrictions in the use of public space (Vargas & Rosero, 2004). Moreover, they present a preference for physically strong aggressive couples to protect them (Snyder et al., 2011).

The result showing that the lower class is the social sector with higher fear of crime contradicts previous research in Costa Rica (Calderón, 2007: UNDP, 2005); nevertheless, it reinforces results of international research (McKee & Milner, 2000; Pantazis, 2000). This contradiction may be due to the intensity of crime news in the media, and the recent relevance that the subject has taken in the country's discourse.

The parallelism between the alternating discourse about crime and the change in the development model has been underlined in other researches (Huhn, 2009). The subject of insecurity, in the national discourse, has occupied the void left by social security policies. This void is intended to be covered by police security, which places crime as one of the main keys to interpret reality (Fonseca & Sandoval, 2005).

Television promotes a feeling of insecurity among people who watch crime news. The insecurity feeling not only comes from the raise of criminal acts, but also from the increasing supply of crime news in the media (Fonseca & Sandoval, 2005). These results indicate that it is precisely the lower class who consumes more newscasts.

Increasing the subject of crime in the national's speech has entrenched upper class in their private spaces using diverse security measures (van Lidth & Schütte, 2010; Vargas & Rosero, 2004). This promotes a feeling of generalized fear among people without material resources, who cannot imitate the upper class, as they must face the threat of crime with less containment measures (Pantazis, 2000), and they also make greater use of public spaces.

Finally, we found no support for the last hypothesis" (H5) crime rate in the area of residence may predict fear of crime." The finding that crime rate in the area of residence is not related to fear of crime is consistent with results of previous research findings, which suggest other contextual variables such as social cohesion or community disorganization as more relevant variables to predict fear (Villarreal & Silva,

2006). This result supports the perspective that other variables such as the psychological or social variables are more relevant than crime rates themselves.

The main limitations of the study are the specific context of Costa Rica, a small country in Central America. However, this limitation could also be a stronghold if the country is seen as a remarkable laboratory of research on fear of crime. Another limitation is the student sample. Young people have specific characteristics of television consumption that should not be generalizable to other populations.

For future research, it is necessary to deepen in the relationship between narrative transportation and system justification within the cultivation process. The main contribution of this paper is to extend the cultivation hypothesis with new variables that may help explaining the cultivation of fear in the general population. It is a complex relationship that empirical research has shown to be non-linear, and this research relates it especially to narrative transportation and beliefs about system justification. Certainly, there is a need to go deeper into these relationships in order to keep contributing in the study of fear of crime cultivation.

Acknowledgements

This research had the support of the University of Costa Rica, project N°723-B1-334 (VI-UCR): "Percepción de criminalidad y visionado de telenoticeros".

References

- Abdullah, A., Hedayati, M., Bahauddin, A., & Javad, M. (2012). The relationship between territorial functioning and victimization: A comparative study of high and low crime rate estates. *Procedia-Social and Behavioral Sciences*, 50, 899-908. <http://doi.org/10.1016/j.sbspro.2012.08.091>
- Appel, M. (2008). Fictional narratives cultivate just-world belief. *Journal of Communication*,

- 58, 62-83. <http://doi.org/10.1111/j.1460-2466.2007.00374.x>
- Bilandzic, H., & Buselle, R. (2008). Transportation and transportability in the cultivation of genre-consistent attitudes and estimates. *Journal of Communication*, 58, 508-509. <http://doi.org/10.1111/j.1460-2466.2008.00397.x>
- Bilandzic, H., & Buselle, R. (2011). Enjoyment of films as a function of narrative experience, perceived realism and transportability. *Communications*, 36, 29-50. <http://doi.org/10.1515/COMM.2011.002>
- Brewer, P., & Ley, B. (2010). Media use and public perceptions of DNA evidence. *Science Communication*, 32(1), 93-117. <http://doi.org/10.1177/1075547009340343>
- Calderón, R. (2007). *Delito y cambio social en Costa Rica: resultados de investigación* (Working Paper Series N°12). Miami: Center for Latin American Studies, University of Miami. Retrieved from <http://www.sitemason.com/files/iI93YA/MALL%20GRANTS%202008%20REPORTSRodolfoCalderon.pdf>
- Collins, D. (2003). Pretesting survey instruments: An overview of cognitive methods. *Quality of Life Research*, 12(3), 229-238. Retrieved from <http://www.jstor.org/stable/4038871>
- Diefenbach, D., & West, M. (2007). Television and attitudes toward mental health issues: Cultivation analysis and the third-person effect. *Journal of Community Psychology*, 35(2), 181-195. <http://doi.org/10.1002/jcop.20142>
- Doyle, A. (2006). How no to think about crime in the media. *Canadian Journal of Criminology and Criminal Justice*, 48(6), 867-885. <http://doi.org/10.3138/cjccj.48.6.867>
- Edson, J. (2004). Imagine yourself in the product: Mental simulation, narrative transportation, and persuasion. *Journal of Advertising*, 33(2), 37-48. Retrieved from <http://www.jstor.org/stable/4189256>
- Eschholz, S., Chiricos, T., & Gertz, M. (2003). Television and fear of crime: Program types, audience traits, and the mediating effect of perceived neighborhood racial composition. *Social Problems*, 50(3), 395-415. <http://doi.org/10.1525/sp.2003.50.3.395>
- Ferraro, K., & LaGrange, R. (1987). The measurement of fear of crime. *Sociological Inquiry*, 57, 70-101. <http://doi.org/10.1111/j.1475-682X.1987.tb01181.x>
- Fiske, S. (2004). *Social beings: A core motives approach to social psychology*. New York: Wiley.
- Fiske, S., & Taylor, S. (2013). *Social cognition: From brain to culture*. London: Sage.
- Fonseca, K., & Sandoval, C. (2005). *Medios de comunicación e (in)seguridad ciudadana en Costa Rica*. San José, CR: Programa de las Naciones Unidas para el Desarrollo.
- Frey, B., Benesch, C., & Stutzer, A. (2007). Does watching TV make us happy? *Journal of Economic Psychology*, 28, 283-313. <http://doi.org/10.1016/j.joep.2007.02.001>
- García-Castro, J. D. (2010). Ideología de la desigualdad: Análisis de la investigación empírica en psicología social. *Revista Electrónica de Psicología Política*, 8(24), 67-87. Recuperado de http://www.psicopol.unsl.edu.ar/diciembre2010_Nota5.pdf
- García-Castro, J. D. (2012). Percepción de criminalidad en Costa Rica: clases sociales, televisión e ideología (Serie Documentos de Trabajo). *Becas de Investigación*. Buenos Aires: CLACSO. Retrieved from <http://biblioteca.clacso.edu.ar/clacso/becas/20120509124519/garciacastro.pdf>
- Green, M., & Brock, T. (2000). The role of transportation in the persuasiveness of public narratives. *Journal of Personality and Social Psychology*, 79(5), 701-721. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/11079236>
- Green, M., & Clark, J. (2012). Transportation into narrative worlds: Implications for entertainment media influences on tobacco use. *Addiction*, 108, 477-484. <http://doi.org/10.1111/j.1360-0443.2012.04088.x>
- Gross, K., & Aday, S. (2003). The scary world in your living room and neighborhood crime rates, and personal experience to test

- agenda setting and cultivation. *Journal of Communication*, 53, 411-426. <http://doi.org/10.1111/j.1460-2466.2003.tb02599.x>
- Holbert, R., Shah, D., & Kwak, N. (2004). Fear, authority, and justice: Crime-related TV viewing and endorsements of capital punishment and gun ownership. *Journalism & Mass Communication Quarterly*, 18(2), 343-363. <http://doi.org/10.1177/107769900408100208>
- Huhn, S. (2009, September). *The culture of fear and control in Costa Rica (II): The talk of crime and social changes* (Working Paper N° 108). Leibniz, DE: German Institute of Global and Area Studies. Retrieved from <https://www.giga-hamburg.de/en/publication/the-culture-of-fear-and-control-in-costa-rica-ii-the-talk-of-crime-and-social-changes>
- Instituto Nacional de Estadística y Censos. (2011, May). *X Censo Nacional de Población y VI de Vivienda. Resultados Generales*. San José, CR: Author. Retrieved from https://www.cipacdh.org/pdf/Resultados_Generales_Censo_2011.pdf
- Jost, J., Banaji, M., & Nosek, B. (2004). A decade of system justification theory: Accumulated evidence of conscious and unconscious bolstering of the status quo. *Political Psychology*, 25, 881-919. Retrieved from [http://www.psych.nyu.edu/jost/Jost,%20Banaji,%20&%20Nosek%20\(2004\)%20A%20Decade%20of%20System%20Justificati.pdf](http://www.psych.nyu.edu/jost/Jost,%20Banaji,%20&%20Nosek%20(2004)%20A%20Decade%20of%20System%20Justificati.pdf)
- Jost, J., Federico, C., & Napier, J. (2009). Political ideology: Its structure, functions, and elective affinities. *Annual Review of Psychology*, 60, 307-337. <http://doi.org/10.1146/annurev.psych.60.110707.163600>
- Jost, J., & Kay, A. C. (2005). Exposure to benevolent sexism and complementary gender stereotypes: Consequences for specific and diffuse forms of system justification. *Journal of Personality and Social Psychology*, 88(3), 498-509. <http://doi.org/10.1037/0022-3514.88.3.498>
- Jost, J., & Thompson, E. (2000). Group-based dominance and opposition to equality as independent predictors of self-esteem, ethnocentrism, and social policy attitudes among African American and European Americans. *Journal of Experimental Social Psychology*, 36, 209-232. <http://doi.org/10.1006/jesp.1999.1403>
- Karakus, O., McGarrel, E., & Basibuyuk, O. (2010). Fear of crime among citizens of Turkey. *Journal of Criminal Justice*, 38, 174-184. <http://doi.org/10.1016/j.jcrimjus.2010.02.006>
- Kay, A., Gaucher, D., Napier, J., Callan, M., & Laurin, K. (2008). God and government: Testing a compensatory control mechanism for the support of external systems. *Journal of Personality and Social Psychology*, 95, 18-35. <http://doi.org/10.1037/0022-3514.95.1.18>
- Kohm, S., Waid-Lindberg, C., Weinrath, M., O'Connor, T., & Dobbs, R. (2012). The impact of media on fear of crime among university students: A cross national comparison. *Canadian Journal of Criminology and Criminal Justice*, 54(1), 67-100. <http://doi.org/10.3138/cjccj.2011.E.01>
- Lee, M., Bichard, S., Irey, M., Walth, H., & Carlson, A. (2009). Television viewing and ethnic stereotypes: Do college students from stereotypical perceptions of ethnic groups as a result of heavy television consumption? *Howard Journal of Communications*, 20(1), 95-110. <http://doi.org/10.1080/10646170802665281>
- McKee, K. J., & Milner, C. (2000). Health, fear of crime and psychosocial functioning in older people. *Journal of Health Psychology*, 5, 473-486. <http://doi.org/10.1177/135910530000500406>
- Morgan, M., & Shanahan, J. (2010). The state of cultivation. *Journal of Broadcasting & Electronic Media*, 54(2), 337-355. <http://dx.doi.org/10.1080/08838151003735018>
- Napier, J., Thorisdottir, H., & Jost, J. (2010). The joy of sexism? A multinational investigation of hostile and benevolent justifications for gender inequality and their relations to subjective well-being. *Sex Roles*, 62,

- 405-419. <http://doi.org/10.1007/s11199-009-9712-7>
- Niederdeppe, J., Franklin, E., Goldstein, K., & Pribble, J. (2010). Does local television news coverage cultivate fatalistic belief about cancer prevention? *Journal of Communication*, 60, 230-253. <http://doi.org/10.1111/j.1460-2466.2009.01474.x>
- Pantazis, C. (2000). Fear of crime, vulnerability, and poverty. *British Journal of Criminology*, 40, 414-436. <http://doi.org/10.1093/bjc/40.3.414>
- Pennebaker, J., & Stone, L. (2004). Translating traumatic experiences into language: Implications for child abuse and long-term health. In L. J. Koenig, L. Doll, A. O'Leary & W. Pequegnat (Eds.), *From child sexual abuse to adult sexual risk: Trauma, revictimization, and intervention* (pp. 201-216). Washington, DC: American Psychological Association.
- Pérez, R., & Torres, D. (2012). Recepción de series televisivas y formación de esquemas cognoscitivos asociados a sus personajes: un estudio con niños y adolescentes costarricenses. *Universitas Psychologica*, 11(4), 1291-1302. Retrieved from <http://revistas.javeriana.edu.co/sitio/psychologica/scacs/articulo.php?id=1098>
- Petty, R. E., Priester, J. R., & Briñol, P. (2002). Mass media attitude change: Implications of the elaboration likelihood model of persuasion. In J. Bryant & D. Zillmann (Eds.), *Media effects: Advances in theory and research* (2nd ed., pp. 155-198). Hillsdale, NJ: Erlbaum.
- Presson, P., & Benassi, V. (1996). Illusion of control: A meta-analytic review. *Journal of Social Behavior and Personality*, 11(3), 493-510. Retrieved from https://www.researchgate.net/publication/240038375_Illusion_of_control_A_meta-analytic_review
- Rader, N., Cossman, J., & Porter, J. (2012). Fear of crime and vulnerability: Using a national sample of Americans to examine two competing paradigms. *Journal of Criminal Justice*, 40, 134-141. <http://doi.org/10.1016/j.jcrimjus.2012.02.003>
- Rankin, L., Jost, J., & Wakslak, C. (2009). System justification and the meaning of life: Are the existential benefits of ideology distributed unequally across racial groups. *Social Justice Research*, 22, 312-333. <http://doi.org/10.1007/s11211-009-0100-9>
- Riddle, K. (2010). Always on my mind: Exploring how frequent, recent, and vivid television portrayals are used in the formation of social reality judgments. *Media Psychology*, 13, 155-179. <http://doi.org/10.1080/15213261003800140>
- Romer, D., Jamieson, K., & Aday, S. (2003). Television news and the cultivation of fear of crime. *Journal of Communication*, 53, 88-104. <http://doi.org/10.1111/j.1460-2466.2003.tb03007.x>
- Rountree, P., & Land, K. (1996). Perceived risk versus fear of crime: Empirical evidence of conceptually distinct reactions in survey data. *Social Forces*, 74, 1353-1376. <http://doi.org/10.1093/sf/74.4.1353>
- Ruiz, J. (2007). Cultura ciudadana, miedo al crimen y victimización: un análisis de sus interrelaciones desde la perspectiva del tejido social. *Acta Colombiana de Psicología*, 10(1), 75-64. Retrieved from <http://www.redalyc.uaemex.mx/pdf/798/79810107.pdf>
- Ruiz, J., & Turcios, L. (2009). Percepción de seguridad, victimización y cultura ciudadana: sus relaciones en cinco contextos iberoamericanos. *Pensamiento Psicológico*, 6(13), 193-202. Retrieved from <http://www.redalyc.uaemex.mx/src/inicio/ArtPdfRed.jsp?iCve=80112469013>
- Salmi, V., Smolej, M., & Kivivuori, J. (2007). Crime victimization, exposure to crime news and social trust among adolescents. *Young*, 15(3), 255-272. <http://doi.org/10.1177/110330880701500303>
- Scarborough, B., Like-Haislip, T., Novak, K., Lucas, W., & Alarid, F. (2010). Assessing the relationship between individual's characteristics, neighborhood context and fear of crime. *Journal of Criminal Justice*,

- 38, 819-226. <http://doi.org/10.1016/j.jcrimjus.2010.05.010>
- Schafer, J., Huebner, B., & Bynum, T. (2006). Fear of crime and criminal victimization: Gender-based contrasts. *Journal of Criminal Justice*, 34, 285-301. <http://doi.org/10.1016/j.jcrimjus.2006.03.003>
- Shanahan, J., & Morgan, M. (2003). *Television and its viewers: Cultivation theory and research*. Cambridge: Cambridge University Press.
- Shrum, L. (1996). Psychological processes underlying cultivation effects: Further test of construct accessibility. *Human Communication Research*, 22(4), 482-509. <http://doi.org/10.1111/j.1468-2958.1996.tb00376.x>
- Smith-Castro, V., & Molina, M. (2011). *Cuaderno metodológico 5. La entrevista cognitiva: guía para su aplicación en la evaluación y mejoramiento de instrumentos de papel y lápiz*. San José, CR: Instituto de Investigaciones Psicológicas.
- Snyder, J., Fessler, D., Tiokhin, L., Frederick, D., Woo, S., & Navarrete, C. (2011). Trade-off in a dangerous world: Women's fear of crime predicts preferences for aggressive and formidable mates. *Evolution and Human Behavior*, 32(2), 127-137. <http://doi.org/10.1016/j.evolhumbehav.2010.08.007>
- Stephens, N., Markus, H., & Townsend, S. (2007). Choice as an act of meaning: The case of social class. *Journal of Personality and Social Psychology*, 93(5), 814-830. <http://doi.org/10.1037/0022-3514.93.5.814>
- United Nations Development Program. (UNDP). (2005). *Overcoming Fear: Citizen (in)security and human development in Costa Rica* (National Human Development Report 2005). San José, CR: Author. Retrieved from http://hdr.undp.org/sites/default/files/costa_rica_2005_en.pdf
- van Laer, T., de Ruyter, K., Visconti, M., & Wetzels, M. (2014). The extended transportation-imagery model: A meta-analysis of the antecedents and consequences of consumer's narrative transportation. *Journal of Consumer Research*, 40, 797-817. <http://doi.org/10.1086/673383>
- van Lidth, M., & Schütte, O. (2010). GAM(ismo). Cultura y desarrollo urbano en la gran área metropolitana de Costa Rica. *Cuaderno de Ciencias Sociales*, N.º 155. Costa Rica: FLACSO.
- Vargas, J., & Rosero, L. (2004). *La cultura política de la democracia en Costa Rica. Un estudio del proyecto de opinión pública en América Latina (OPAL)*. San José, CR: Centro Centroamericano de Población.
- Villarreal, A., & Silva, B. (2006). Social cohesion, criminal victimization and perceived risk of crime in Brazilian neighborhoods. *Social Forces*, 84(3), 1725-1753. <http://dx.doi.org/doi:10.1353/sof.2006.0073>
- Weitzer, R., & Kubrin, C. (2004). Breaking news: How local TV news and real-world conditions affect fear of crime. *Justice Quarterly*, 21(3), 497-520. <http://doi.org/10.1080/07418820400095881>
- Wyant, B. (2008). Multi-level impacts of perceived incivilities and perceptions of crime risk on fear of crime. *Journal of Research in Crime and Delinquency*, 45, 39-64. <http://doi.org/10.1177/0022427807309440>

Notes

- * Research article.