

Effects of the Presence of Violators on the Intention to Commit Illegal Bicycle Parking -From the Perspective of Behavioral Criteria-

Itakura N*

Gifu University, Japan

***Corresponding author:** Norimasa Itakura, Gifu University, 1-1, yanagito, gifu-shi Gifu, JAPAN 501-1193, Japan, Tel: +81-58-293-2331; Email: 1takura313@gmail.com

Research Article

Volume 2 Issue 2

Received Date: November 08, 2018

Published Date: November 28, 2018

DOI: 10.23880/mhrij-16000125

Abstract

Illegal bicycle parking was focused as deviant behavior and the effects of descriptive norms shown by the presence of violators on the intention to illegally park bicycles were investigated. Tendencies that were affected by descriptive norms were also examined from the perspective of three types of behavioral criteria: public consideration, consideration for reputation, and egocentrism. The results indicated main effects of the presence of violators on the sense of guilt concerning surrounding people, egocentric feelings, the sense of shame towards surrounding people, and the intention to park illegally, regardless of the degree of each behavioral criterion. On the other hand, there were differences in the effects of the presence of violators according to the degree of value attached to the reputation, and egocentrism, on the personal acceptance of the prohibition. The acceptance of the prohibition increased when there were no violators in people that regarded reputation as important. The results also indicated that egocentric people might justify illegal parking when there were violators.

Keywords: Illegal Bicycle Parking; Violators; Descriptive Norms; Behavioral Criteria

Introduction

Rules are required for regulating individual behaviors in society. Such rules are generally called social norms, and they function as clear behavioral guidelines [1]. However, people sometimes make judgments about their behaviors based on the behaviors of others. The tendency to do so is significant in situations in which the norm to be obeyed is unclear [2]. Cialdini, Kallgren, and Reno (1991) [3] classified social norms into two types, injunctive, and

descriptive norms. The former is socially desirable norms that are unmistakably recognized by many people, and include laws, regulations, and manners. The latter are norms shown by practical behaviors performed by many people. However, people around us do not always perform desirable behaviors. Therefore, injunctive and descriptive norms are sometimes inconsistent. Conflicts often happen in situations where deviant behaviors are conducted because of the inconsistency between the two norms [4]. Cialdini, Reno, and Kallgren (1990) [5] conducted a field experiment on littering and reported

that the percentage of people that littered was higher in places where there was much garbage. Moreover, Kitaori and Yoshida (2000a) [6] conducted an observation experiment on the effects of descriptive norms on ignoring a red light and reported that when most people crossed at a pedestrian crossing regardless of the red light, people were influenced by them and ignored the red light. Deviant behaviors such as littering and ignoring red lights are behaviors for which legal sanctions are imposed based on injunctive norms. However, some individuals perform these behaviors because of the influence of surrounding people's behaviors. It is considered that descriptive norms would have rather much effect.

On the other hand, Kitaori and Yoshida (2000b) [7] conducted a field experiment on illegal bicycle parking under two conditions; (1) bicycles were parked in places where parking was prohibited and (2) no bicycles were parked. The results indicated that some people parked their bicycles by ignoring the prohibition in the former situation, whereas fewer people parked their bicycles in the latter situation. It is suggested that the presence of bicycles functioned as a descriptive norm which facilitated illegal parking when it was inconsistent with the injunctive norm, although it suppressed illegal parking when it was consistent with the injunctive norm. Therefore, a descriptive norm indicated by the presence of violators might affect the intention to perform deviant behaviors.

However, not all people leave their behavioral judgments to descriptive norms. Reno, Cialdini, and Kallgren (1993) [8] indicated that a certain number of people conducted behaviors following a desirable norm regardless of the surrounding conditions. Therefore, there could be individual differences in the influence of descriptive norms. Gollwitzer, Rothmund, Pfeiffer, and Ensenbach (2008) [9] suggesting that whereas observer sensitivity is positively related to cooperative behavior, victim sensitivity promotes antisocial and egoistic behavior. Furthermore, Kitaori and Yoshida (2000b) [7] classified pedestrians' behaviors at an intersection where three types of red-light ignoring are often observed from the perspective of processes affecting descriptive norms; convinced criminal, coming-into-line, and observance types. The convinced criminal type consistently ignores the red light, regardless of the behaviors of the people around them. The coming-into-line type follows others' behaviors; such that they also cross when other people cross at the intersection ignoring the red light, and they hesitate to cross at the intersection when other people are waiting for the walk signal. The observance type

consistently obeys the traffic lights, even if all the other people ignore the red light and cross. The classification by Kitaori and Yoshida (2000b) [7] is based on behaviors that they observed, which is related to individual differences in what people consider important in public places.

Moreover, the process of deciding whether to perform or not to perform a deviant behavior in public places is affected by individual feelings such as egocentrism and a sense of shame. For example, when the other people are conducting behaviors deviating from a norm, one might feel unfair by obeying the norm, and egocentric feelings might be increased. On the other hand, when people deviate from social norms, they would be punished not only legally but also socially, by being looked at coldly [10]. Previous studies have indicated shame has maladaptive functions, whereas the sense of guilt has adaptive functions [11]. On the other hand, Tangney, Stuewing, and Mashek [12] suggested that shame and the sense of guilt are evoked in social conditions in which people are exposed to evaluation by others. Thus, both shame and the sense of guilt are feelings evoked after a violation and might affect deviant behaviors when there are violators. As described above, descriptive norms affect individual feelings such as egocentrism, shame, and a sense of guilt as well as individual levels of accepting prohibition, and are involved in decision making on performing/not performing deviant behaviors.

However, previous studies have not examined whether descriptive norms that are shown by the presence of violators might be related to an individual's egocentricity, shame, guilty feelings or the intention to perform deviant behaviors. Moreover, the characteristics of people that are easily affected by descriptive norms have not been examined to date. It is important to clarify the effect of descriptive norms and their individual differences for examining coping strategies for deviant behaviors. This study focused on illegal bicycle parking as one of the deviant behaviors affected by descriptive norms, and the following hypotheses were examined based on the perspective of individual behavioral criteria.

Hypothesis 1: The sense of guilt, shame, and the level of accepting prohibition would be lower, whereas egocentric feelings and intention to perform illegal parking would be higher when there are violators compared to when there are no violators.

Hypothesis 2: Differences in the intention to park bicycle illegally and the feelings at that time in people that regard the surrounding people's evaluation as important in

public places would be larger than those that do not regard it as important.

Method

Participants

A questionnaire was administered to Japanese university students (N=238). Among them, the data of those that returned the questionnaire without missing data and with valid responses were analyzed (N=206, 79 men, and 127 women, the mean age=20.82, SD=.95). The survey was conducted on October 26th, 28th, and 31st in 2015.

Measures

Items Regarding Behavioral Criteria of People in Public Places

The Behavioral Criteria Scale developed by Sugawara, Nagafusa, Sasaki, Fujisawa, and Azami (2006) [13] was used in this study. Participants were requested to respond to 20 question items regarding their thoughts when behaving in the town or on trains, among other places, by using a five-point scale anchored between “*Not at all*” and “*Very true*.”

Bicycles Parking and Intention to Park after Seeing a No-Parking Sign

Two types of parking situations were developed;
No violators: You use your bicycle to go to the nearest station. However, there is no parking place at the station. Therefore, you usually park in a space that does not obstruct traffic as other people do. One day, when you arrived at the station, you see a signboard in your usual parking place saying bicycle parking is prohibited. There are no bicycles parked there.

There are violators: You use your bicycle to go to the nearest station. However, there is no parking place at the station. Therefore, you usually park your bicycle in a space that does not obstruct traffic as other people do. One day, when you arrived at the station, you see a signboard in your usual parking place saying bicycle parking is prohibited. Some bicycles were parked there as usual.

Items Regarding the Intention to Park a Bicycle

Question items regarding the intention to park one's bicycle were developed by Kitaori (1998) [14]. Among 24 items about feelings when looking at the no-parking sign,

18 items consisting of the following four factors were used in this study: the sense of guilt about other people, egocentric feelings, personal acceptance of the prohibition, and the sense of shame towards surrounding people. Moreover, Item 16, “I will park my bicycle and ignore the sign” was used for measuring the intention to park illegally. Participants were requested to respond to the questions using a seven-point scale, ranging between “*Strongly disagree*” and “*Strongly agree*.” Moreover, two types of questionnaires were developed and were presented in a counterbalanced order such that the (1) participants first responded to the items in the no-violator setting, or (2) participants first responded to items in the violator setting.

Ethical Considerations

The request for the survey and its objectives were described on the face sheet of the survey. Moreover, participants were informed that the data obtained in the survey would only be statistically processed and that individuals would not be identified. Moreover, they were assured that their data would not be used for any other purposes. Participants were also informed that responding to the survey was not mandatory.

Results

The total scores for the three factors in the Behavioral Criteria Scale; Public consideration ($\alpha = .76$), Consideration for reputation ($\alpha = .70$), and Egocentrism ($\alpha = .63$), were calculated. The mean values of the factors were 20.40 ($SD = 2.78$), 12.88 ($SD = 3.10$), and 9.50 ($SD = 2.79$) respectively. In analyzing the interactions between the degree of valuing each behavioral criterion and descriptive norms, participants obtaining higher scores than the mean were classified into the high group and those obtaining lower scores than the mean were classified into the low group. An analysis of variance (ANOVA) was conducted with the level of each behavioral criterion as an independent variable and “the sense of guilt towards surrounding people” “intention to park illegally ($\alpha = .91$),” “egocentric feelings ($\alpha = .87$),” “personal acceptance of the prohibition ($\alpha = .87$),” “the sense of shame towards surrounding people ($\alpha = .80$),” and “intention to park illegally” as dependent variables.

Results of ANOVA with Public Consideration and Parking as Independent Variables

A two-way ANOVA was conducted on each dependent variable with public consideration (high/low) and the bicycle parking setting (no violators/violators) as

independent variables (Table 1). The results indicated the main effects of the setting on each dependent variable (a sense of guilt towards the people around: $F(1, 204) = 33.23, p < .001, \eta^2 = .02$, egocentric feelings: $F(1, 204) = 31.31, p < .001, \eta^2 = .02$, personal acceptance of

prohibition: $F(1, 204) = 17.76, p < .001, \eta^2 = .01$, the sense of shame for surrounding people: $F(1, 204) = 46.48, p < .001, \eta^2 = .03$, and the intention to park illegally: $F(1, 204) = 73.33, p < .001, \eta^2 = .01$). There were no interactions.

	Public consideration	Violators		No violators		Setting	Each behavioral criterion	Setting x each behavioral criterion
	high/low	Mean	SD	Mean	SD	Main effects	Main effects	Interactions
The sense of guilt towards surrounding people	high group	28.91	3.96	27.57	5.45	33.23***	26.45***	0.09
	low group	25.41	5.26	23.92	6.05			
Egocentric feeling	high group	14.1	6.1	15.69	6.34	31.31***	7.47**	0.16
	low group	16.25	5.7	17.87	5.99			
Personal acceptance of prohibition	high group	18.6	2.18	18.04	2.64	17.76***	24.57***	0.16
	low group	16.96	2.81	16.29	2.88			
The sense of shame towards surrounding People	high group	21.72	4.38	20.48	4.59	46.48***	13.26***	2.47
	low group	20.09	4.18	18.1	4.06			
Intention to park illegally	high group	2.04	1.29	2.81	1.53	73.33***	2.78 [†]	0.23
	low group	2.29	1.25	3.14	1.56			
[†] $P < .10$, ** $P < .01$, *** $P < .001$ high group (n=94), low group (n=112)								

Table 1: Results of ANOVA with public consideration and parking setting as independent variables

Results of ANOVA with Reputation and Parking as Independent Variables

A two-way ANOVA was conducted on each dependent variable, with consideration for reputation (high/low) and bicycle parking setting (no violators/violators) as independent variables (Table 2). The results indicated a main effect of the setting on each dependent variable (the sense of guilt for surrounding people: $F(1, 204) = 31.56, p < .001, \eta^2 = .02$, egocentric feelings: $F(1, 204) = 28.34, p < .001, \eta^2 = .02$, personal acceptance of prohibition: $F(1, 204) = 14.60, p < .001, \eta^2 = .01$, the sense of shame

towards surrounding people: $F(1, 204) = 50.66, p < .001, \eta^2 = .04$, and the intention to park illegally: $F(1, 204) = 67.77, p < .001, \eta^2 = .07$). Moreover, there was an interaction in personal acceptance of prohibition ($F(1, 204) = 4.36, p < .05, \eta^2 = .003$). *Post hoc* tests indicated a simple main effect of the setting in the high consideration for reputation group ($F(1, 122) = 23.68, p < .001$). There were no interactions in the sense of guilt towards surrounding people, egocentric feelings, the sense of shame towards surrounding people, or the intention to perform illegal parking.

	Consideration for reputation	Violators		No violators		Setting	Each behavioral criterion	Setting x each behavioral criterion
	high/low	Mean	SD	Mean	SD	Main effects	Main effects	Interactions
The sense of guilt towards surrounding people	high group	27.63	4.77	26.12	5.84	31.56***	3.73	0.2
	low group	26.08	5.26	24.8	6.3			
Egocentric feeling	high group	15.62	5.98	17.47	6.37	28.34***	2.09	1.11
	low group	14.75	5.95	15.99	5.95			
Personal acceptance	high group	18	2.45	17.14	2.98	14.60***	1.38	4.36*

of prohibition	low group	17.27	2.91	17.01	2.8			
The sense of shame towards surrounding people	high group	21.6	3.93	20.23	4.12	50.66***	16.32***	1.38
	low group	19.7	4.69	17.64	4.51			
Intention to park illegally	high group	2.18	1.27	3.11	1.59	67.77***	0.7	2.08
	low group	2.17	1.27	2.82	1.48			
*P<.05, ***P<.001								
high group (n=123), low group (n=83)								

Table 2: Results of ANOVA with reputation and parking as independent variables.

Results of ANOVA with Egocentrism and Parking as Independent Variables

A two-way ANOVA was conducted on each dependent variable with egocentrism (high/low) and bicycle parking setting (no violators/violators) as independent variables (Table 3). The results indicated the main effect of the setting on each dependent variable (the sense of guilt towards surrounding people: $F(1, 204) = 34.36, p < .001, \eta^2 = .02$, egocentric feelings: $F(1, 204) = 31.58, p < .001, \eta^2 = .02$, personal acceptance of prohibition: $F(1, 204) = 19.12, p < .001, \eta^2 = .01$, the sense of shame towards surrounding people: $F(1, 204) = 49.43, p < .001, \eta^2 = .03$, and intention to park illegally: $F(1, 204) = 76.42, p < .001, \eta^2 = .08$). Moreover, an interaction was shown for the personal acceptance of prohibition ($F(1, 204) = 7.92$,

$p < .01, \eta^2 = .01$), the sense of shame towards the people around ($F(1, 204) = 4.19, p < .05, \eta^2 = .003$), and intention to perform park illegally ($F(1, 204) = 4.23, p < .05, \eta^2 = .005$). *Post hoc* tests indicated a simple main effect of setting for personal acceptance of prohibition in the high egocentric group ($F(1, 101) = 16.89, p < .001$). Simple main effects of the setting were also shown for the sense of shame towards surrounding people in the high egocentric group ($F(1, 101) = 31.67, p < .001$) and the low egocentric group ($F(1, 103) = 17.49, p < .001$). Furthermore, simple main effects of the setting were shown for intention to park illegally in the high egocentric group ($F(1, 101) = 45.48, p < .001$) and low egocentric group ($F(1, 103) = 30.68, p < .001$). There were no interactions between the sense of guilt towards surrounding people and egocentric feelings.

	Egocentrism	Violators		No violators		Setting	Each behavioral criterion	Setting x each behavioral criterion
		Mean	SD	Mean	SD			
	high/low	Mean	SD	Mean	SD	Main effects	Main effects	Interactions
The sense of guilt towards surrounding people	high group	25.92	6.11	25.92	5.02	34.36***	12.54***	2.41
	low group	28.08	4.81	27.03	5.66			
Egocentric feeling	high group	17.11	5.72	18.51	6.14	31.58***	20.21***	0.50
	low group	13.46	5.67	15.27	5.92			
Personal acceptance of prohibition	high group	17.06	2.93	16.04	2.92	19.12***	24.07***	7.92**
	low group	18.34	2.21	18.12	2.50			
The sense of shame towards surrounding people	high group	20.31	4.54	18.18	4.60	49.43***	7.40**	4.19*
	low group	21.35	4.10	20.17	4.11			
Intention to park illegally	high group	2.48	1.42	3.49	1.60	76.42***	23.52***	4.23*
	low group	1.88	1.02	2.50	1.34			
*P<.05, **P<.01, ***P<.001								
high group (n=123), low group (n=83)								

Table 3: Results of ANOVA with egocentrism and parking as independent variables

Discussion

Results indicated that when there were violators compared to no violators, the sense of guilt and shame,

and the degree of accepting the prohibition were lower and egocentric feelings and intention to park illegally were higher. These results supported the findings of Kitaori and Yoshida (2000b) [7] suggesting that

descriptive norms and the consciousness about surrounding people affect the degree to which red-lights are ignored. Therefore, Hypothesis 1 of the study was supported. The results of this study indicated that in situations with no violators, the injunctive norm described by the no-parking sign and descriptive norms were consistent, and therefore, the degree of accepting the prohibition increased. On the other hand, in situations with parking violators, injunctive norms and descriptive norms are inconsistent, and the degree of accepting the prohibition decreased.

The results of examining differences in the tendency to be affected by the presence of violators depending on the value attached to the three behavioral criteria indicated the following. There were interactions between consideration for reputation and the setting, as well as between egocentrism and the setting. The degree of accepting prohibition in the setting where there were violators was lower in the groups with high consideration for reputation and high egocentrism, compared to in the setting where there were no violators. On the other hand, there were no effects of the setting in the groups with low consideration for reputation and low egocentrism. The differences in the presence of violators on the degree of accepting the prohibition based on the degree of valuing the reputation partly supported Hypothesis 2. On the other hand, participants valuing egocentrism indicated a larger difference in the degree of accepting the prohibition based on the presence of violators. It might be possible that people considering their own benefits as more important justifies deviant behaviors based on the behaviors of surrounding people. Moreover, when there were violators, the sense of guilt and shame were lower and egocentric feelings and intention to park were higher than when there were no violators, regardless of behavioral criteria level of each factor. These factors might have been affected by the presence violators regardless of the level of each behavioral criterion because of two different types of sensitivity to egocentrism, the sense of guilt and shame. Especially, the finding that shame and the sense of guilt were rather low when there are violators support the findings of Tangney, Stuewing, and Mashek (2007) [12], suggesting that shame and the sense of guilt are evoked in social conditions. Moreover, Davis (1999) [15] has suggested that there are two types of empathy; empathy as an individual trait and empathy depending on the conditions. The former is the innate tendency to empathize with others and the latter is the tendency to empathize with others, which is affected by the presence of other people. There could also be two types of egocentric, shame and feelings of guilt, i.e.,

feelings as individual traits and situation dependent feelings. Therefore, the level of behavioral criteria based on individual traits and egocentric, shameful, and guilty feelings, which are dependent on the situation, might not have been consistent.

This study focused on the effects of the presence of violators. Therefore, descriptions other than the existence of parked bicycles were intentionally omitted. However, factors other than the presence of violators are related to performing deviant behaviors in actual situations. For example, Kitaori and Yoshida (2004) [16] indicated that habituation was one factor affecting the behavior of ignoring red-lights. There are differences in information about the volume of traffic and recognition of safety between a person crossing a given crosswalk for the first time and a person that has crossed it many times. The former tends to regard injunctive norms shown by the red light more as being important than descriptive norms shown by the behaviors of surrounding people. Habituation is a factor is in not only in ignoring red-lights but also other deviant behaviors including illegal bicycle parking. It is suggested that when examining the effects of descriptive norms more accurate results can be obtained by conducting field experiments where deviant behaviors happen.

This study assumed specific situations and demonstrated that the degree of accepting a prohibition based on the presence of violators differed according to individual traits, such as the extent of valuing the reputation and egocentrism. Therefore, it is important to clarify the individual traits of people conducting deviant behaviors, which are affected by descriptive norms, to examine effective coping strategies to minimize damage, when considering difficulties in eradicating the violators such as convinced criminals. This study is significant because it indicated that differences in the degree of being affected by descriptive norms depended on individual traits.

Notes

This article is the revised version of the graduation thesis written by Tomoya Sakaida, submitted to Faculty of Education, Gifu University, in 2015.

References

1. Patkanis AR, Aronson E (1992) Age of propaganda: The everyday use and abuse of persuasion. W H Freeman and Company, New York.

2. Tesser A, Campbell J, Mickler S (1983) The role of social pressure, attention to the stimulus and self-doubt in conformity. *European Journal of Social Psychology* 13(3): 217-233.
3. Cialdini RB, Kallgren CA, Reno RR (1991) A focus theory of normative conduct: A theoretical refinement and reevaluation of the role of norms in human behavior. *Advances in Experimental Social Psychology* 24: 201-233.
4. Yuo S, Yoshida T (2013) Favor as a deterrent for inconsiderate public behavior. *The Japanese journal of experimental social psychology* 53(1): 1-11.
5. Cialdini RB, Reno RR, Kallgren CA (1990) A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places. *Journal of Personality and Social Psychology* 58(6): 1015-1026.
6. Kitaori M, Yoshida T (2000) The influence of descriptive norms on illegal crossing at an intersection. *Japanese journal of social psychology* 16(2): 73-82.
7. Kitaori M, Yoshida T (2000) Message Effects in Detering Rule-breaking Behavior. *The Japanese journal of experimental social psychology* 40(1): 28-37.
8. Reno RR, Cialdini RB, Kallgren CA (1993) The transsituational influence of social norms. *Journal of Personality and Social Psychology* 64(1): 104-112.
9. Gollwitzer M, Rothmund T, Pfeiffer A, Ensenbach C (2009) Why and when justice sensitivity leads to pro- and antisocial behavior. *Journal of Research in Personality* 43(6): 999-1005.
10. Shoham SG, Rahav G (1982) The mark of Cain: The stigma theory of crime and social deviance. University of Queensland Press.
11. Trangney JP, Dering RL (2002) Shame and guilt. Guilford Press, New York.
12. Trangney JP, Stuewing J, Mashek DJ (2007) Moral emotions and moral behavior. *Annual Review of Psychology* 58: 345-372.
13. Sugawara K, Nagafusa N, Sasaki J, Fujisawa A, Azami R (2006) Deviant Behavior and Shame in Japanese Adolescents—Five Behavioral Standards for Public Space— *Seishin Studies* 107: 57-77.
14. Kitaori M (1998) Message effects in deterring socially deviant behavior *Bulletin of the School of Education. Psychology* 45: 155-165.
15. Davis MH (1994) Empathy: A social psychological approach. Westview Press.
16. Kitaori M, Yosida T (2004) An observational study of the illegal crossing behavior of pedestrians: Focusing on the effects of hurrying and habit *Japanese journal of social psychology* 19(3): 234-240.

