Territorial Defense in Parking Lots: Retaliation Against Waiting Drivers

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Three studies showed that drivers leaving a public parking space are territorial even when such behavior is contrary to their goal of leaving. In Study 1 (observations of 200 departing cars), intruded-upon drivers took longer to leave than nonintruded-upon drivers. In Study 2, an experiment involving 240 drivers in which level of intrusion and status of intruder were manipulated, drivers took longer to leave when another car was present and when the intruder honked. Males left significantly sooner when intruded upon by a higher rather than lower status car, whereas females' departure times did not differ as a function of the status of the car. There was evidence that distraction might explain some of this effect. In Study 3, individuals who had parked at a mall were asked about how they would react to intruders. Compared to what they believed other people would do, respondents said they would leave faster if the car were just waiting for them to leave but they would take longer to leave if the driver in the car honked at them.

Territorial behavior involves marking, occupying, or defending a location in order to indicate presumed rights to the particular place. The value of a territory usually stems from the fact that it contains desirable resources (e.g., game for hunting, grazing pastures). Most often, territorial responses are based on a cost-benefit analysis: If the perceived cost of resisting an intruder outweighs the benefit of that territory, flight is likely, but if the benefit outweighs the cost, defense is more probable (Barash, 1977; Brown, 1987). For example, although intruded-upon subjects did not typically defend library tables, they usually resisted intrusion when they were at library carrels, which were more valuable as study sites (Taylor & Brooks, 1980).

The cost of defending a territory depends in part on the nature of the intruder. The more aggressive and the more powerful an intruder is, the more costly territorial defense becomes (Barash, 1977). Relatedly, Barash (1973) found that invaded-upon subjects were more apt to leave a territory in a library when the intruder was of high status than of low status. Other studies have shown that

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high-status confederates were intruded upon less frequently at water fountains than were low-status confederates (Barefoot, Hoople, & McClay, 1972; Rosenfeld, Giacalone, & Kennedy, 1987). These studies show rational behavior; if intruders or occupants of public territories look formidable, then avoid them.

Public territories are those that almost anyone can occupy for a short period (Altman, 1975). Because public territories are not important to the lives of occupants and because occupants have only minimal rights to public territories, occupants of public territories are likely to retreat when intruded upon (Brown, 1987). For instance, Felipe and Sommer (1966) found that subjects tended to leave the library sooner when a confederate sat in a chair beside them than when the confederate sat in a chair across the table from them. Other investigators have also shown that occupants tend to flee public territories following intrusions (e.g., Barash, 1973; Efran & Cheyne, 1974; Patterson, Mullens, & Romano, 1971).

Sometimes, however, occupants of public territories resist intrusion, that is, occupy the territory longer than if no intrusion occurred. For example, male subjects tended to linger significantly longer in library aisles when intruded upon by a male confederate than when alone in the aisles (Ruback, 1987). And, callers at public pay phones who were intruded upon by someone waiting to use the phone spent significantly more time on the phone than did callers who were not intruded upon (Ruback, Pape, & Doriot, 1989). Importantly, Ruback et al. (1989) also showed that distraction alone could not account for the increased time spent at the pay phones when intrusion occurred, in that a control group (involving confederates using an adjacent phone) did not increase the subjects' time at the phone.

Although a territory is valuable because of the resources it encompasses, particularly if the resources are unique, it can also take on symbolic value, linking ownership with identity, control, and competence (Brown, 1987). Whereas responses to territorial intrusion are likely to be based on a rational cost-benefit analysis if the value of the territory is the primary concern, rational analysis may not be as important if the primary value of the territory is symbolic. Under such conditions, defense may occur even if there is nothing tangible to be protected or gained.

Common experience and anecdotal evidence (e.g., Richman, 1972) suggest that automobiles have a symbolic value that magnifies perceived restrictions. Thus, for example, individuals are likely to be upset if a car stopped in front of them at a red light does not move quickly enough when the light turns green (Doob & Gross, 1968). Similarly, it is likely that much of the territorial behavior observed on streets and highways (e.g., refusing to let someone pass after he or she has signaled a desire to do so) is the product of concerns with identity and control rather than the defense of actual resources.

The present series of studies tested whether or not occupants of a public territory use their temporary ownership to retaliate against intruders. Specifically, we wondered whether occupants would be territorial even when they had completed their task at the location and the territory no longer served any function for them. We tested this hypothesis in a series of three studies of individuals' behavior in parking lots. Resistance to intrusion when leaving a parking space would be counterproductive because the space is no longer needed, and leaving is actually the goal of the departing driver. Territorial resistance in such circumstances would seem unnecessary, detrimental, and even nonrational. However, because automobile drivers may be especially sensitive to perceived attacks on their status and control, they may be willing to be territorial despite the apparent costs.

Study 1

The first study, a naturalistic observational study, examined whether the amount of time drivers take to leave a parking space is related to whether or not another driver is waiting for the parking space. Because a parking space has minimal value to a departing driver, intrusion should facilitate a speedier departure. However, because concerns with identity and control are so tied to driving, it was predicted that intrusion would induce territorial defense. It was also hypothesized that the higher the status of the intruding drivers' cars, the sooner the departing drivers would leave, because it was assumed that high-status intruders would be seen as having more power and would therefore be seen as a greater threat.

Method

Subjects. Two hundred drivers were observed leaving their parking spaces in front of the main entrance to an Atlanta-area shopping mall. There were 103 females and 97 males. In terms of race, there were 105 Whites, 77 African Americans, and 18 of other groups.

Procedure. Two researchers stood in front of the main entrance to the mall and observed only those shoppers parked in the 52 spaces along the closest four columns of spaces, excluding handicapped spaces. For each departing shopper in the defined area, the researchers started timing the moment the departing shopper opened the driver's side car door and stopped timing when the car had completely left the parking space. None of the subjects appeared to be aware of being observed. The three drivers who waited in their car for more than 2 min were not included in the data because the researchers assumed those drivers had certain time-consuming tasks to complete before leaving (e.g., waiting for another shopper or looking at a map).

In addition to recording departure times, the researchers also noted when another driver was waiting for the departing driver's parking space. Intrusion was considered to have occurred when, prior to opening their driver's side door, subjects turned their head toward the car of the waiting driver. Furthermore, the researchers recorded the gender and race of the departing drivers and the number of people accompanying the departing drivers. Finally, the researchers noted the model, condition, and approximate age of the departing cars and of any intruding cars. The researchers used this information about the cars to determine the approximate dollar value of the cars from the most recent edition of *VMR Standard Used Car Prices* (Karpatkin, 1993). Based on a subset of 25 cases, interrater reliability on the departure times of the cars was very high, $r(23) = .99, p < .001$. The reliability of the estimates of car dollar value was also high, $r(16) = .95, p < .001$. There was perfect interrater agreement on gender and race of departing drivers and on when intrusion occurred.

Results

Of the 200 departing drivers observed, 76 (38%) were intruded upon by another driver. The number of people in the cars ranged from 1 to 8 ($M = 1.89$, $SD = 0.97$). The dollar value of 193 departing cars (7 cars were not listed in the book) ranged from \$1,000 to \$60,000 (M = \$7,943, SD = \$6,333). The dollar value of 68 intruding cars (8 cars were not listed in the book) ranged from \$1,000 to \$33,050 (M = \$8,435, SD = \$6,802). The difference between the value of the departing car and the value of the intruding car ranged from -\$28,275 to +\$16,700 (M = -\$438, SD = \$7,428).

The amount of time the departing drivers took to leave (the departure time), ranged from 10.61 s to 113.35 s ($M = 34.76$ s, $SD = 14.97$ s). The departure time was positively correlated with the number of people in the car, $r(198) = .24, p < .001$. Male drivers had significantly more passengers in the car with them ($M = 1.10$) than did female drivers ($M = 0.68$), $t(198) = 3.14, p < .01$, but male drivers and female drivers did not differ in their departure times. Although African American drivers ($M = 1.00$) had more passengers than did White drivers ($M = 0.65$), $t(180) = 3.00, p < .01$, the two groups did not differ significantly in their departure times. The value of the departing cars, the value of the intruding cars, and the difference in value between them were not significantly correlated with the departure time.

Because number of people in the departing car was related to time it took to depart, $r(198) = .24$, $p < .001$, we used this variable as a grouping factor in subsequent analyses. A 2 × 2 ANOVA of the departure times was conducted using intrusion and number of people in the departing car as grouping variables, with number in the car being dichotomized into (a) only one person in the car

or (b) more than one person in the car. Drivers departed sooner when not intruded upon ($M = 32.15$ s) than when intruded upon ($M = 39.03$ s), $F(1, 196) = 10.43$, $p < .001$. And, drivers departed sooner when alone ($M = 30.64$ s) than when with passengers ($M = 37.45$ s), $F(1, 196) = 10.35$, $p < .01$. There was no significant interaction of intrusion and number in the car. A logarithmic transformation of the raw scores (to reduce skewness) showed similar results: a main effect for intrusion, a main effect for number in car, and no interaction.

Discussion

In this observational study, departing drivers took longer to leave their parking spaces when they were intruded upon by another driver than when they were not. Although longer departure times following intrusion may indicate territorial behavior, causality cannot be inferred with this observational study because other factors may be operating. For instance, the presence of the intruding cars may have distracted the departing drivers, causing them to need more time to leave the parking space. A related possibility is that departing drivers took longer to leave when intruded upon because they wanted to be careful to avoid a collision with the intruding car.

Regarding the absence of a relation between status of intruding cars and departure time, it may be that status effects occur only at the extremes. That is, the status of intruding cars may influence departing drivers' times only when intruding cars have either a noticeably low dollar value or a noticeably high one. If this explanation is true, then this observational study would not have found an effect because most intruding cars were of moderate status.

Study 2

The second study was conducted to determine whether the findings from the observational study that intruded-upon drivers took longer to leave were due to territorial behavior or to some alternative explanation. In this study, four intrusion conditions were compared to a no-intrusion condition, allowing a test of whether intruded-upon drivers take longer to depart than nonintruded-upon drivers. Further, a distraction condition, in which a confederate drove by the subjects, allowed a test of whether the mere presence of another driver affected departing drivers, independent of whether this other driver was waiting for a parking space. Based on the findings of Study 1, it was hypothesized that intruded-upon departing drivers would take longer to leave than would nonintruded-upon departing drivers.

This study also examined the effects of level of intrusion. In addition to the no-intrusion and distraction conditions, confederates either intruded upon the

drivers while honking (high intrusion) or intruded without honking (low intrusion). It was hypothesized that departing drivers would take longer to leave following a greater intrusion because the greater intrusion (honking) creates a greater challenge to the occupants' control over the territory (Brehm, 1966). Therefore, more territorial defense (longer departure times) should be displayed.

Another purpose of the second study was to test the effects of the intruders' status on departing drivers by using a car of either very high value or very low value. Past studies have shown that high-status confederates were intruded upon less frequently at water fountains than were low-status confederates (Barefoot et al., 1972; Rosenfeld et al., 1987). Furthermore, Barash (1973) found that intruded-upon subjects were more apt to leave a territory in a library when the intruder was of high status than of low status, and Doob and Gross (1968) found that drivers were more likely to honk at a car stopped in front of them at a green light when the car was of low rather than high status. Based on this prior research, it was hypothesized that higher status intruders, compared to lower status intruders, would cause departing drivers to leave faster.

Method

Subjects. A total of 240 individuals (120 males, 120 females), drivers who were leaving their parking spaces at a mall, served as subjects in this experimental study. There were 171 Whites, 56 African Americans, and 13 of other races.

Procedure. The study was conducted during the afternoons and evenings of three Thursdays, three Fridays, and three Saturdays at a mall located in a more affluent part of Atlanta than the mall used in Study 1. Only cars that had been driven into the parking space front bumper first were used in the study.

The status of the intruding cars was manipulated by using cars that varied greatly in value. The low-status car was a 1985 Nissan Maxima station wagon worth about $5,200. The high-status car was a 1994 Infiniti Q45 worth about $57,000 or a 1993 Lexus SC 400 worth about $43,000. The second manipulation was level of intrusion. In the high-intrusion condition, the confederate (one of two males) stopped his car four spaces from and facing in the direction of the departing car. Then, the confederate flashed the turn signal in the direction of the departing car and honked the horn once after the driver sat behind the wheel. In the low-intrusion condition, a confederate simply stopped the car four spaces from and facing in the direction of the departing car.

In addition to this 2 × 2 (Status × Level of Intrusion) design, there were two control conditions. In the first control condition (no intrusion), a researcher observed departing drivers who were not intruded upon by another driver

waiting for the space. In the second control condition (distraction), a confederate drove his car past the parking space of the departing car as the driver opened the driver's side car door. Then, the confederate entered the next row of parking spaces. Thus, with the two control conditions, there were six conditions: (a) no intrusion, (b) distraction, (c) high intrusion by a high-status car, (d) high intrusion by a low-status car, (e) low intrusion by a high-status car, and (f) low intrusion by a low-status car. The six conditions were randomized within replicates (i.e., the experiment was conducted in multiple sets of the six conditions, and within each set the six conditions were randomly ordered). There were 40 participants (20 males, 20 females) in each of the six conditions.

The observers started timing when the departing shopper opened the driver's side car door. When the front bumper of the car left the parking space, the researchers noted the elapsed time which, as in Study 1, was the measure of departure time.

In addition to noting departure times, the researchers recorded the gender and race of the departing drivers, the number of people in the departing car, and the type and year of the departing cars. Later, the researchers determined the dollar values of the departing cars by using the *Blue Book Used Car Guide* (Kelley, 1994). To determine the reliability of these measures, two researchers independently recorded all variables for the first 25 cases. The interrater reliability of the measure of departure time was very high, $r(23) = .99, p < .001$. The two researchers' measurements were within 0.50 s 60% of the time, 0.75 s 68% of the time, and 1 s 92% of the time. The interrater reliability for car status was also high, $r(23) = .94, p < .001$. There was perfect interrater agreement on the number of people in the departing car and on the departing drivers' gender and race.

Results

The number of people in the cars ranged from 1 to 5 ($M = 1.52$, $SD = 0.77$). The dollar value of the departing cars ranged from \$1,325 to \$48,730 ($M =$ \$10,833, $SD =$ \$7,670). Departure time ranged from 20.79 s to 96.42 s ($M =$ 34.11 s, $SD = 16.52$ s).

Correlations among departure time, number of people in the departing car, the value of the departing car, and the difference between the value of the departing car and the value of the intruding car revealed only one significant effect: Departure time was positively correlated with the number of people in the car, $r(238) = .13, p < .05$. In terms of gender, male drivers departed sooner ($M = 31.74$) than did female drivers ($M = 36.43$), $t(238) = 2.21, p < .05$. Male drivers ($M = 1.65$) also had more passengers in the car with them than did female drivers ($M = 1.39$), $t(238) = 2.69, p < .01$.

Level of intrusion. The first analysis was designed to test whether or not the four levels of intrusion differed significantly. This one-way ANOVA, involving the high intrusion (honking), the low intrusion (no honking), and the two control groups (no intrusion and distraction), indicated a significant difference among the four groups, $F(3, 236) = 13.50, p < .001$. Three orthogonal contrasts were used to compare the means. First, a planned contrast of the means indicated that departure times were significantly longer when another car was present (i.e., distraction, low intrusion, or high intrusion; $M = 34.88$ s) than when there was no other car present ($M = 26.47$ s), $F(1, 236) = 3.13, p < .01$. A second planned contrast comparing the distraction condition to the two intrusion conditions indicated that drivers who were intruded upon ($M = 36.78$ s) did not stay significantly longer than did those who were distracted ($M = 31.09$ s), $F(1, 236) = 2.09$, *ns*. The third planned contrast indicated that, given that an intruding car was present, departure times were significantly longer when the confederate honked ($M = 42.75$ s) than when he did not ($M = 30.80$ s), $F(1, 236) = 5.20, p < .001$.

Gender and level of intrusion. The initial ANOVA indicated that the presence or absence of an intruding car affected the time it took drivers to leave. In the second set of analyses, which excluded the two control conditions, a $2 \times 2 \times 2$ ANOVA of the departure time was performed, in which the grouping variables were level of intrusion (horn or no horn), status of the intruding vehicle, and gender of the departing driver. Because similar results were obtained when number of people in the car was used as a covariate, the results of the ANCOVA are not presented.

The Intrusion × Status × Gender ANOVA revealed a significant effect for intrusion. As above, drivers took longer to depart when the confederate in the intruding vehicle honked the horn than when he did not, $F(1, 151) = 16.23, p < .001$. There was no significant main effect for either the status of the intruding vehicle or the gender of the driver. However, there was a significant two-way interaction of status of the intruding vehicle and gender of driver, $F(1, 151) = 7.36, p < .01$. According to a post-hoc Newman-Keuls test, male drivers left significantly sooner when intruded upon by the high-status car ($M = 30.39$ s) than when intruded upon by the low-status car ($M = 39.72$ s), whereas for female drivers there was no difference in departure time as a function of the status of the car (Ms = 41.06 s and 36.64 s, for high- and low-status cars, respectively). ANOVA on log-transformed data yielded results similar to those conducted on the raw data.

Discussion

Consistent with the observational study, in this experimental study, departing drivers took longer to leave "their" parking spaces when another driver was

present than when no other driver was present. Furthermore, the departing drivers took longer the greater the intrusion (i.e., honking vs. no honking). In other words, departing drivers were territorial about a space they wanted to leave.

In addition, male drivers were more territorial (i.e., took longer) when intruded upon by a driver in a low-status car than by a driver in a high-status car, whereas female drivers did not respond differently as a function of the status of the intruding cars. Males, compared to females, may have responded to the status of the cars because they are more generally attuned to symbols of status. Alternatively, females, like males, may in general respond to indicators of status, but they may not have responded differently to the status of cars in this study because they did not pay attention to or recognize the different values of the intruding cars. The fact that in this study only males responded to the status of the cars may explain why we did not find the interaction of status and intrusion that others have (e.g., Barash, 1973; Doob & Gross, 1968).

The longer departure times of intruded-upon drivers may be taken as a sign of territorial defense. But, these longer times may also be due to drivers' being distracted by the intruding cars and, relatedly, to departing drivers' wanting to avoid colliding with the intruding cars. The fact that there was no difference between the distraction condition and the low intrusion condition suggests that the delay in leaving was due in large part to departing drivers' concern with avoiding the car behind them. However, it should also be noted that the distraction condition may not have been a pure manipulation of distraction, in that even though the distracting car was not waiting for the departing driver, the presence of the distracting car could have primed departing drivers about the value of the space they were about to leave.

Moreover, the finding that the status of the intruding car affected males' departure times would suggest that distraction cannot be the sole explanation, because it would be difficult to understand how the high-status car could be more distracting than the low-status car. It is possible that drivers took 12 s longer to leave after greater than lesser intrusion (honking vs. no honking) because they believed more care was needed to avoid the honking driver, even though in both conditions the car was waiting the same distance away from the experimental subjects. In sum, although distraction accounts for some of the difference, territorial defense seems to be at least part of the explanation for why the departing drivers took longer to leave when intruded upon than when there was no intrusion.

Study 3

A third study was conducted to determine whether people are aware of how an intruding driver affects the amount of time they take to leave "their" parking

space. A total of 100 individuals who had parked at a shopping mall (66 females, 34 males; 73 Whites, 26 African Americans, 1 other race) completed a 13-item questionnaire. Respondents ranged in age from 21 to 62 years (M = 40.9, SD = 8.9). The questionnaire contained three 7-point semantic differential scales (*bad-good*, *uncomfortable-comfortable*, *anxious-calm*) that respondents used to rate how they would feel while leaving a parking space under three different conditions: with no one waiting, with one driver waiting, and with a driver waiting who honks the horn. In each of the three conditions, each of the three scales was divided by its standard deviation, the three scale scores were summed, and this total was divided by 3 to form a composite measure, with lower numbers representing more negative ratings. Internal reliabilities for the three composite scores were very high (αs = .95, .96, and .95, respectively). A repeated measures ANOVA with composite scores as the within-subjects factor revealed a significant repeated-measures effect, $F(2, 198) = 146.94$, $p < .001$. Respondents said they would feel significantly more negative when the waiting driver honked ($M = 3.14$) than when the waiting driver did not honk ($M = 5.02$), and significantly more negative when there was a nonhonking waiting driver than when there was no waiting driver ($M = 6.27$).

The questionnaire also contained four items concerning respondents' beliefs about how a driver waiting for their space and a honking driver waiting for their space would affect how long it would take them and others to leave. Respondents made their judgments on 7-point scales, ranging from 1 (*make it shorter*) through 4 (*no effect*) to 7 (*make it longer*). These four items were analyzed by a 2 × 2 within-subjects ANOVA, with the two variables being role (self vs. other people) and level of intrusion (no honking vs. honking). There was a significant effect for role, $F(1, 99) = 8.48$, $p < .001$, with individuals believing that they would take less time to leave ($M = 3.38$) than would others ($M = 3.62$). There was also a significant effect for level of intrusion, $F(1, 99) = 196.22$, $p < .001$, such that respondents said they and others would leave faster if there were a driver waiting ($M = 2.35$) than if the driver honked ($M = 4.64$).

In addition to these two significant main effects, there was a significant Role × Level of Intrusion interaction, $F(1, 99) = 68.28$, $p < .001$. As shown in Table 1, respondents said they would leave a space sooner if another driver were waiting for their space but would take longer to leave if the waiting driver honked. Likewise, respondents believed others would leave sooner (but not as soon as they would) if another driver were waiting for the space. And, respondents believed others would take longer (but not as long as they would) if the waiting driver honked. A post-hoc test indicated that the four means were all significantly different. In other words, respondents saw themselves as more polite than others with regard to a silently waiting driver, but less polite than others with regard to a honking driver.

Table 1

Mean Ratings of Own and Others' Behavior Following Low Intrusion (No Honking) or High Intrusion (Honking) When Leaving a Parking Space (Study 3)

	Low intrusion	High intrusion
Own behavior	1.87[a]	4.88[d]
Others' behavior	2.83[b]	4.40[c]

Note. These ratings were made on 7-point scales ranging from 1 (*make it shorter*) through 4 (*no effect*) to 7 (*make it longer*). Means not sharing a common superscript are significantly different according to a post-hoc Newman-Keuls test ($p < .05$).

It is interesting to note that respondents in this study recognized their territorial behavior in parking lots under high intrusion (honking) conditions because an earlier study had indicated that people do not recognize their territorial behavior with regard to public telephones (Ruback et al., 1989). One reason for this difference might be that individuals in the United States are aware of the extent to which self-concept and self-esteem are tied to automobile ownership and use. Alternatively, it may be that drivers recognize their territorial behavior only when the intrusion is clearly negative, as it is when the waiting driver honks. What is especially interesting about the survey results is that the respondents believed it is normative to be territorial when a potential new occupant of the territory is highly intrusive.

General Discussion

The present series of studies is consistent with prior findings that people display territorial defense in public territories (Ruback et al., 1989; Ruback & Snow, 1993; Taylor & Brooks, 1980). Specifically, in both Study 1 and Study 2, departing drivers took longer to leave "their" parking spaces when they were intruded upon by another driver than when they were not. And, consistent with research in libraries (Ruback, 1987), greater levels of intrusion led to greater territoriality.

What is new about the present research is that it suggests people sometimes display territorial behavior merely to keep others from possessing the space even when it no longer has any value to them. Thus, even though they were leaving the parking space, departing drivers took longer when someone else wanted the space than when no one else wanted the space. Past research suggests that territorial defense follows a cost-benefit analysis by which occupants

leave a territory if resisting intruders might cost more than the territory is worth (Barash, 1977; Brown, 1987). The present studies are unique in that the defense displayed for these task-specific territories (the parking spaces) is counterproductive from the standpoint of time, because the primary goal of the occupant is to leave the space.

That departing drivers stay longer suggests one or both of two possibilities. First, departing drivers may use a cost-benefit analysis and reassess the value of their space when they see that someone else wants it. Such a reassessment would not be surprising, given research in other contexts indicating that scarcity is linked to higher subjective value (Brock, 1968; Cialdini, 1988). Second, departing drivers may become territorial out of a desire to reassert control against intrusions on them (Brehm, 1966). Because territories can take on a symbolic value, linking ownership with control (Brown, 1987), even occupants of temporary territories may link possession with control. In such circumstances, resistance to intruders may provide a feeling of control, and resistance to greater intrusion (e.g., honking) may provide an even greater sense of control. This notion would be consistent with the idea that passive continued possession of a temporary territory can be a legitimate, nonaggressive response to a perceived threat to status.

Although territoriality and reactance may be confounded in the context of parking lots, the two processes would seem to make different predictions. Presumably, reactance comes into play only when people lose the opportunity to choose. When a car is waiting for a driver to leave, the threat to freedom is relatively minimal; in fact, there may be more perceived freedom, in that drivers can choose to leave faster (as they say they will do), leave slower (as they are likely to do), or not change their behavior at all. When the intruder honks the horn, however, the threat to freedom of action is clear and drivers are likely to want to restore their threatened sense of freedom. Thus, reactance theory would predict slower departures only when the waiting driver honked, whereas an explanation based on territoriality would predict, as we found, slower departures both when the driver was silent and when he honked. Future work might fruitfully address whether reactance and territoriality can be separated, as hypothesized here.

Assuming that territoriality is the cause of this behavior, it would be interesting to investigate factors that reduce or exaggerate this effect. For example, just as group cohesiveness can reverse the bystander effect in emergency situations (Rutkowski, Gruder, & Romer, 1983), familiarity, cohesiveness, and expectations of future interaction (as in a parking lot shared by co-workers) can probably also reverse the observed territoriality in the situation studied here. However, we might expect extreme territorial behavior were a stranger to want to use the group's lot.

In order to test the generalizability of the present findings, future researchers should investigate territorial defense in other task-specific locations where defense would serve not to protect resources for the temporary owner's use, but solely to keep others from enjoying any benefits from the territory. For example, it might be worth attempting to replicate Ruback et al.'s (1989) finding that intruded-upon occupants stayed longer at public pay phones than did nonintruded-upon occupants by using only individuals who are making credit-card calls. Being territorial in such conditions would cost callers money. Under conditions when the costs are made salient, it would be important to know whether people behave territorially in a conscious or mindless fashion (Langer, Blank, & Chanowitz, 1978). This proposed research would allow researchers to determine whether territorial instincts that once served our ancestors are still functional today.

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