Traffic light compliance by civilians, soldiers and military officers

Tova Rosenbloom *

The Phoenix Road Safety Studies, Department of Management, Bar Ilan University, Ramat Gan 52900, Israel

ABSTRACT

Military officers, particularly those in the chain of command, are expected to provide "a good example of virtue, honor, patriotism, and subordination" (Snider, 2008). The aim of the present study was to examine the extent to which these values are reflected in the behavior that military officers exhibit crossing roads, as compared with soldiers' and civilians' road-crossing behavior. One thousand two hundred pedestrians were observed while crossing the street at an urban intersection in the center of Israel. Of these pedestrians, 594 (49.5%) were soldiers, 112 (9.33%) were officers and 488 (40.66%) were civilians. An observation grid was constructed to register pedestrians' crossing behavior. The independent variables encoded were gender, military status and military rank. The dependent variables encoded were crossing the road at a red light; crossing a busy road; running across the road; crossing the road diagonally; crossing the road without looking both ways; and crossing without first stopping at the sidewalk edge. To compare the crossing behaviors of each group of pedestrians, a summation was made for the six parameters of safe crossing. An ANOVA compared the means of unsafe road-crossing behaviors of males and females, on the one hand, and of civilians, soldiers and officers, on the other. A post hoc Scheffe test conducted on the means showed that the mean of the unsafe road-crossing behaviors of the civilians ($M = 1.55$, SE $= .04$) was higher than that of the soldiers ($M = 1.35$, SE $= .04$) and of the officers ($M = 1.21$, SE $= .08$) $p < .05$. No significant difference was found between the means of the unsafe road-crossing behaviors of soldiers and officers, although the means of the officers' unsafe behaviors was lower than that of the soldiers. That is, both soldiers and officers exhibited road-crossing behavior that was significantly safer than that of civilians. Generally, more females waited for the green light (54.1%) than males (45.9%). No main effect of gender or interaction with belonging to the military was found.

© 2011 Elsevier Ltd. All rights reserved.

1. Introduction

1.1. Army as a total organization

As is the case with armies the world over, the Israeli army is characterized by features of a total institution. According to Goffman (1961), a total institution is a place of work and residence in which a great number of similarly situated people are cut off from the wider community for a considerable amount of time, during which they collectively lead an enclosed, formally administered routine. This type of institution is typified by the lack of separation within daily cycles such as sleep, play and work. All areas of life are managed at the same location and under the same authority. The institution's members, in this case soldiers and military officers, are obliged to follow both the army's orders and rules as well as the state's rules (Israeli Military Commands, 1995). The present study focuses on military staff's compliance with traffic laws.

The leader's place in total institutions is critical and has much more significance than in other types of institutions (Geva, 2001). Because the commanding officer's leadership is total, his/her subordinates depend on his/her decisions in each of their life domains (Geva, 2001).

1.2. Military officers

Military officers are both formal and non-formal leaders. As such, their example provides subordinates with inspiration and a model to imitate (Keren, 1987). Arnon et al. (1986) found that among dozens of traits mentioned by both commanders and subordinates as important for excellence in commanding, there were five crucial traits that distinguished the best commanders. These were integrity, professionalism, personal example, ability to relate well to others and courage. Additionally, military commanders are expected to adhere to rules in everyday life situations.

Professionals dedicated to training army leaders assert that it is necessary for modern professional military officers to take a broader view than did past military leaders. Today's military officer must have a more comprehensive perspective on the surrounding

operational, organizational, social and political domains of experience than did his or her predecessors (Bartone et al., 2007). Day (2001) argues that there is an increasing need for military leaders at all levels to possess what have traditionally been viewed as essential attributes for senior or strategic leaders. These attributes include divergent thinking, and creative problem solving skills. Day (2001) also argues for the importance of an expanded conceptual capacity in leaders, in order to maximize adaptability across a wide range of unforeseen situations.

Role Theory (Biddle, 1986) relates to patterned and characteristic social behaviors, roles or identities that are assumed by social participants. Role theory also describes the ways that scripts or expectations for behavior are understood by all and are adhered to by the performer. Roles can be generated by norms, beliefs, or preferences. The legacy of the Israeli Army has created expectations that its staff will adhere to the army's and the State's laws, including traffic laws. Role Theory predicts that leader will adhere to these laws, especially in public.

1.3. Military officers' compliance with laws

All commissioned officers, particularly those in the chain of command, are expected to provide at all times "a good example of virtue, honor, patriotism, and subordination" (Snider, 2008, p. 257). They are educated to internalize values of expected behavioral norms, such as loyalty, soldierly virtues, incorruptibility, responsibility and morality (Chang et al., 2007).

De Hoogh and Den Hartog (2008) found that leaders that were rated as high on social responsibility were rated higher on ethical leadership and lower on despotic leadership. Highly rated ethical leadership was also positively related to the perceived team effectiveness of top management and to subordinates' optimism about the future of the organization and their own place within it. The aim of the present study was to examine the extent to which these values are reflected in the behavior that military officers exhibit crossing roads, as compared with soldiers' and civilians' road-crossing behavior. In general, we expected that military officers would commit fewer traffic violations than both soldiers and civilians.

1.4. Road safety

Traffic accidents are one of the main causes of death in Israel, as in many other countries (National Authority of Road Safety, 2009). Road accidents account for 5.9 fatalities per 100,000 civilians in Israel. Of these fatalities, 30–40% are pedestrian deaths. This rate of pedestrian fatalities is much higher than that in Western countries (National Authority of Road Safety, 2009).

Special efforts are needed to understand the specific conditions under which pedestrians are injured while crossing roads. The current study is aimed at identifying behavioral patterns of road rules compliance by civilians as well as by soldiers and military officers to obtain insights into improving educational efforts in both civil and military systems.

1.5. Street-crossing behavior

Research on pedestrians' behavior reveals a variety of factors leading to injury of road crossers. Demographic variables, such as age and gender, play important roles in behaviors exhibited crossing roads. For example, older pedestrians cross more slowly than young pedestrians (Gates et al., 2006) and make less lenient judgments of traffic gaps than do younger adults (e.g., Lobjois and Cavallo, 2007). Male pedestrians tend to wait less time and be less inclined to look for traffic before stepping onto the road than do female pedestrians. Males are also less likely to observe "rules" for

the use of formal crossings than females (Rosenbloom et al., 2004). Personality is yet another factor that determines pedestrians' road-crossing decisions (Pitcairn and Edlmann, 2000; Rosenbloom and Wolf, 2002).

Individuals' marital status, education, income and employment status (Gueguen and Pichot, 2001; LaScala et al., 2000) are also correlated with safe road crossing, as is the degree to which their national context is considered to be "developed" (Hamed, 2000). Personal values can also predict road-crossing behavior. For example, Rosenbloom et al. (2004) found that pedestrians in an Ultra-Orthodox environment committed approximately three times as many traffic violations as did pedestrians in a secular environment.

In contrast to such studies on civilian road-crossing behavior, there is a lack of evidence of the road-crossing patterns of both soldiers and military officers. The present study is the first to focus on soldiers', military officers' and civilians' compliance with red light rules. Revealing different groups' typical patterns of behavior can contribute to understanding how and under what circumstances people behave according to rules (in this case, traffic rules). An unpublished study (Rosenbloom et al., unpublished) found that traffic policemen commit fewer traffic violations when driving than do non-traffic policemen and that both groups of policemen commit less traffic violations when driving than do civilians.

Based on the idea of the "total institution" (Goffman, 1961) and on Role Theory (Biddle, 1986), we hypothesized that civilians would commit proportionally more traffic violations than soldiers or officers (1st Hypothesis). Furthermore, according to Role Theory (Biddle, 1986), soldiers should commit proportionally more traffic violations than officers (2nd Hypothesis). In addition, because there is evidence that male pedestrians commit more traffic violations than female pedestrians (for example, Granié, 2009), we hypothesized that males, both civilians and soldiers, would commit more traffic violations than females (3rd Hypothesis).

2. Method

2.1. Participants

A total of 1200 pedestrians were observed. Of these, 594 (49.5%) were soldiers, 112 (9.33%) were officers and 488 (40.66%) were civilians. Across the three groups, 569 (47.41%) pedestrians observed were males, and 625 (52.08%) were females. The pedestrians were not aware that they were being observed.

The soldiers and the officers were identified by their military uniform. The pedestrians not wearing uniforms were identified as civilians. A limitation of this differentiation is that soldiers on vacation may be wearing civilian clothes.

2.2. Instruments

A special observation grid was constructed to aid in registering the independent variables: the pedestrian's gender (male/female), military status (civilian/soldier/officer) and military rank. Pedestrians' crossing behaviors, which were the dependent variables, were also registered: crossing without looking both ways, running across the road, crossing a busy road, crossing at a red light, crossing diagonally, and crossing without stopping at the sidewalk edge.

The selection of these specific pedestrian crossing behaviors was based on previous research (for example, Hatfieldand and Murphy, 2006; Morrongiello and Barton, 2009; Zeedyk and Kelly, 2003). For the variable "crossing without looking both ways," each case in which a pedestrian turned his or her head to both sides to check for traffic before crossing the street was registered as "looked both