

RUNNING HEAD: Gun Attitudes

Gun Attitudes on Campus: United and Divided by Safety Needs

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## Abstract

All people share a need for safety. Yet, people's pursuit of safety can conflict when it comes to guns, where some people perceive guns as a means to safety and others perceive guns as a threat to safety. We examined this conflict on a United States college campus that prohibits guns. We distinguished between people ( $N = 11,390$ ) who (a) own a gun for protection, (b) own a gun exclusively for reasons other than protection (e.g., collecting, sports), and (c) do not own a gun. Protection owners felt less safe on campus, supported allowing guns on campus, and reported that they and others would feel safer and that gun violence would decrease if they carried a gun on campus. Non-owners and non-protection owners felt the reverse. The findings suggest that protection concerns, rather than gun-ownership *per se*, account for diverging perceptions and attitudes about guns and gun control.

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### Gun Attitudes on Campus: United and Divided by Safety Needs

Social scientists have long argued that people have a fundamental need for safety. Early researchers posited safety as one of the most basic human needs (Maslow, 1943) and a number of scientists argue that concerns with safety and security serve an evolutionary function and are intimately connected with biology (Sagarin & Taylor, 2008). In addition, psychologists increasingly acknowledge the importance of safety to psychological well-being (Carroll, Arkin, & Wichman, 2015). For example, according to the Fundamental Motives Framework, physical safety threats endanger survival and reproduction goals and can strongly influence thoughts, feelings, and behavior (Kenrick, Neuberg, Griskevicius, Vaughn Becker, & Schaller, 2010). The need for safety, which ultimate means the need to feel safe, is vitally important to understanding how people feel about guns. However, no evidence links basic psychological factors—such as protection needs and expectations regarding potential gun violence—to support for gun legislation, perceptions of how carrying a gun affects feelings of safety, and judgments of the deterring effects of guns on crime. Moreover, with few exceptions (Bankston & Thompson, 1989; Lizotte, Tesoriero, Thornberry, & Krohn, 1994), gun research typically treats gun owners as a homogenous group.

We argue that the motivation for owning a gun is fundamentally important in predicting who does and does not support gun legislation and who anticipates positive versus negative consequences of reduced gun restrictions for safety and gun crime. We contend that the need for safety can explain the opposing views that Americans have about guns. Furthermore, we suggest that the divide between gun advocates and gun opponents likely stems from a failure to recognize different approaches to achieving the fundamental need for safety.

Prior studies find that Americans who own guns view gun restrictions as a threat to their

safety (McClain, 1983), and believe that they—and others—feel safer if they are armed (Miller, Azrael, & Hemenway, 2000). Accordingly, for gun owners, feeling safe depends on whether they are carrying a gun. In contrast, many Americans who do not own guns believe that people who carry guns create danger, even when people carry guns legally. For non-owners, more guns in a community leads to reduced feelings of safety (Hemenway, Azrael, & Miller, 2001). They often regard gun restrictions as necessary for safety (Hemenway et al., 2001; Hemenway, Solnick, & Azrael, 1995). These observations are consistent with our argument that safety concerns underlie differences in perceptions and attitudes between people who do and do not own guns. This argument is intuitive and, if true, enhances how researchers and policymakers view seemingly intractable disagreements between groups. However, the relation between safety concerns and gun ownership remains unexplored in the scientific literature, leaving this important explanation untested.

Framing the debate in terms of safety needs takes the discussion beyond mere gun ownership. We argue that the motivation for owning a gun is crucial to understanding differences in the expression of safety needs and support for legislation *among* gun owners. If viewing guns as a means to safety versus as a threat to safety is responsible for different attitudes, then gun ownership per se might be a relatively weak predictor of attitudes towards guns. We propose that, for gun owners, the important predictor is *why* they own guns. Although some people own guns for protection, others own guns for reasons other than protection (e.g., collecting, sports, hunting, and inheritance). We propose that these “non-protection” gun owners are less inclined than “protection” gun owners to view guns as a means to safety and are more likely to resemble non-owners in their attitudes. Specifically, we propose that non-protection owners are more likely than protection owners to oppose the expansion of gun rights and to support increased gun

restrictions. By examining psychological motives for gun ownership, the current research overcomes the current literature's neglect of the fact that people have different approaches to achieving their need for safety.

We examined this proposition among members of a large, public, American campus community that currently prohibits guns on campus. Although relatively safe from violence (Fox & Savage, 2009), American college campuses have experienced several highly publicized shootings, fostering the perception that campuses can be unsafe (Kaminski, Koons-Witt, Thompson, & Weiss, 2010). In addition, legislators from several states have proposed—with mixed success—legislation that would permit guns on their state college campuses, despite opposition from campus communities (Cavanaugh, Bouffard, Wells, & Nobles, 2012; Hemenway et al., 2001; Patten, Thomas, & Viotti, 2013; Thompson et al., 2013; Tversky & Kahneman, 1973).

A handful of studies have distinguished between gun ownership for protection versus non-protection reasons, but focused primarily on predicting who occupies each group (Bankston & Thompson, 1989; Lizotte et al., 1994). In addition, a few studies have examined attitudes towards guns within campus communities. These studies find that campus communities overwhelmingly oppose guns on campus and that non-owners are more likely than gun owners to oppose having guns on campus (Patten, Thomas, & Wada, 2013; Thompson et al., 2013; Tversky & Kahneman, 1973). Interestingly, much of the research originates from criminologists, epidemiologists, and political scientists, with psychologists largely absent from research on attitudes about gun rights and gun control. Perhaps as a consequence, researchers have not examined the psychological mechanisms driving opposition to guns on campus and the different attitudes of gun owners and non-owners. We propose that people may view guns either as a

means to safety or a threat to safety, and that these different views correspond with different attitudes about guns on campus. Thus, an important contribution of our approach is our emphasis on the psychological need for safety and its satisfaction, moving the field beyond the demographic “owner versus non-owner” distinction that is currently dominant.

We tested five hypotheses. First, we predicted that people who own guns for protection reasons, compared with people who own guns for non-protection reasons or do not own guns, feel less safe on their college campus. Second, we predicted that people who own guns for protection reasons, compared with people who own guns for non-protection reasons or do not own guns, believe that they—and others—would feel safer if they were armed. Third, we predicted that people who own guns for protection reasons would support legislation that allows people to carry concealed guns, whereas people who do not own guns and people who own guns for non-protection reasons would oppose such legislation.

Our last two predictions addressed perceptions of gun crimes on campus in the last year, and the level of gun crime on campus that would occur if legislation allowed people to carry concealed guns on campus. Specifically, if how people view guns (as a means to safety versus threat to safety) accounts for the difference between protection gun owners and everyone else (i.e., non-protection gun owners and non-owners), then the groups should differ in their perceptions of gun crime on campus. Our fourth prediction was that, due to the availability heuristic (Tversky & Kahneman, 1973), all members of the campus community would overestimate the prevalence of gun crimes on campus. More important was what the different groups believed would happen to gun crime if guns were allowed on campus. Our fifth prediction was that people who own guns for protection reasons would expect gun crimes to decrease, in line with the perception that guns are a means to safety. We predicted that the other

two groups (non-protection gun owners and non-owners) would expect gun crimes to increase, in line with the perception that guns are a threat to safety.

## Method

### Participants

We sent emails to all members of the campus community at the University of Florida for whom we had email addresses ( $n = 62,465$ ) inviting them to participate in a study of gun attitudes. Regarding sample size, we attempted to collect as many responses as possible, with the a priori decision to stop data collection after two weeks. Of the 11,804 people (18.9%) who consented to participate, we included everyone who responded to the first gun survey item ( $n = 11,390$ ), which asked about their attitude towards allowing licensed gun-owners to carry a concealed gun on campus. The large sample provided  $> 99\%$  power to detect a small effect  $f^2 = .10$ ,  $\alpha = .001$ . The sample comprised 1,397 faculty, 2,285 staff, 6,575 students, and 1,133 who did not list their status ( $M$  age=31.9 years,  $SD=14.0$ , 46.3% women, 65.8% White). The sample was generally representative of the campus community in terms of gender and race/ethnicity, although the response rate was notably higher among faculty (28.0%) and staff (26.0%) than among students (12.6%).

### Materials and Procedure

After they consented to participate, we informed participants that the state legislature was considering a law that would allow people with a state-issued concealed carry license to carry their guns (on their person; not visible) on the campuses of public colleges and universities in the state. We first asked participants their attitude regarding legislation that would allow people with a concealed gun license to carry concealed (not visible) guns on their college campus (1=*strongly opposed*; 5=*strongly support*). Second, participants responded to items asking: (1) how safe do

you currently feel on your campus, (2) how safe would you feel if you legally carried a concealed (not visible) gun on your college campus, (3) how safe would you feel if other people legally carried a concealed gun on your college campus, and (4) how safe would other people feel if you legally carried a concealed gun on your college campus (1=*not at all safe*; 2=*somewhat unsafe*; 3=*neither safe nor unsafe*; 4=*somewhat safe*; 5=*very safe*).

Third, we asked participants if they owned a gun and asked participants who responded “yes” why they owned a gun (personal protection, protection of others, recreation, or other). The responses allowed us to classify participants into three groups: (1) Do not own a gun (*non-owners*), (2) own a gun for protection reasons (*protection owners*), and (3) own a gun exclusively for non-protection reasons (*non-protection owners*). The protection group included participants who checked multiple responses, when one of the responses was protection. We omitted from analyses participants ( $n=43$ ) who provided insufficient information to classify them into one of these three groups. Finally, participants estimated on open-ended items the number of gun-related crimes (1) that occurred on their campus in the last 12 months, and (2) that would occur over a 12-month period if legislation allowed the carry of concealed guns on campus.

We administered all items in the order described here. During pilot testing, participants expressed confusion when we counterbalanced items. Thus, we removed all counterbalancing from the survey. More details about the sample, survey items, and methods are available at (*withheld to maintain blind review process*).

### **Data Analysis**

We initially conducted omnibus ANOVAs (a one-way ANOVA for the legislation item; a 3 (gun ownership group) x 4 (safety item) mixed model ANOVA for the safety items) to analyze responses. We examined significant omnibus effects with pairwise comparison using the pooled

error term and setting alpha at .001 to reduce the Type I error. When analysis using the Mauchley's test revealed unequal variance across conditions, we computed Welch's adjusted  $F$ . A more detailed report of the methods and results appears at <https://osf.io/u3bv2/>.

## Results

### Feelings of Safety

Consistent with Hypothesis 1, protection owners reported that they felt less safe on campus than did the other two groups. The number of responses to the four safety items ranged from 10,255 for the fourth safety item to 11,376 for the third safety item. However, our analyses included only the 8,811 participants that supplied responses to all four items. A 3 (group: non-owner, non-protection owner, protection owner)  $\times$  4 (safety item) mixed model ANOVA revealed a main effect of gun ownership group,  $F(2, 8,808)=1,800.93, p<.0001, \eta_p^2=.29, 95\% \text{ CI } [.28, .31]$ , a main effect of safety item,  $F(2.06, 18,126.22)=1,149.28, p<.0001, \eta_p^2=.12, 95\% \text{ CI } [.11, .12]$ , and a significant gun ownership group  $\times$  safety item interaction,  $F(4.12, 18,126.22)=1,365.13, p<.0001, \eta_p^2=.24, 95\% \text{ CI } [.23, .25]$ . Table 1 presents the results comparing within each item the mean responses of the three groups, and comparing within each group the mean responses to each item. Non-owners and non-protection owners felt equally safe on their campus,  $F(1, 8,808)=0.63, p=.70, \eta_p^2=.0001, CI \ 95\% [.00, .09]$ . However, Protection owners felt less safe ( $M=3.62, SD=1.06$ ) currently than did non-owners ( $M=4.22, SD=0.89$ ) and non-protection owners ( $M=4.26, SD=0.96$ ) (for non-owners,  $F(1, 8,808)=613.99, p<.0001, \eta_p^2=.07, CI \ 95\% [.06, .08]$ ; for non-protection owners,  $F(1, 8,808)=169.22, p<.0001, \eta_p^2=.02, CI \ 95\% [.01, .02]$ ).

These same participants reported that they would feel safer than they do now if they carried a concealed gun ( $M=4.62, SD=0.84$ ),  $F(1, 8,808)=686.86, p<.0001, \eta_p^2=.07, CI \ 95\% [.06,$

.08]. In contrast, non-owners ( $M=2.75$ ,  $SD=1.43$ ) and non-protection owners ( $M=3.28$ ,  $SD=1.47$ ) said they would feel less safe than they do now if they carried a concealed gun (for non-owners,  $F(1, 8,808)=5,088.37$ ,  $p<.0001$ ,  $\eta_p^2=.37$ , 95% CI [.35, .38]; for non-protection owners  $F(1, 8,808)=153.21$ ,  $p<.0001$ ,  $\eta_p^2=.01$ , 95% CI [.01, .02]). Finally, protection owners ( $M=3.95$ ,  $SD=1.15$ ) were more likely than non-owners ( $M=2.12$ ,  $SD=1.19$ ) and non-protection owners ( $M=2.46$ ,  $SD=1.32$ ) to report that other people would feel safe if the respondents carried a gun (for non-owners,  $F(1, 8,808)=3,463.61$ ,  $p<.0001$ ,  $\eta_p^2=.28$ , 95% CI [.27, .30]; for non-protection owners,  $F(1, 8,808)=554.14$ ,  $p<.0001$ ,  $\eta_p^2=.06$ , 95% CI [.05, .07]). Non-owners said that others would feel less safe than did non-protection owners, but the effect was notably smaller than the other effects,  $F(1, 8,808)=34.61$ ,  $p<.0001$ ,  $\eta_p^2=.004$ , CI 95% [.00, .14].

These findings suggest that the different motivations underlying gun ownership manifest as opposing sentiments about how safe people feel currently and in the future if people could legally carry guns on campus. More importantly, the non-protection owners more closely resembled non-owners than protection owners. All three groups felt relatively safe currently on campus: Mean ratings were above the midpoint of 3 (*neither safe nor unsafe*). However, non-owners and non-protection owners reported that they would no longer feel safe on campus (i.e., their means fall below the midpoint) if concealed guns were permitted on campus.

To provide a fuller picture of how guns on campus might influence safety perceptions, Table 2 presents the percentage of participants by gun-ownership group who reported feeling unsafe, safe, or neither in response to the four safety items. Few participants (9.2%) reported currently feeling unsafe, even among protection owners. However, this number jumps (63.1%) when participants reported how safe they would feel if others legally carried guns on campus. Of the 11,804 participants who reported how safe they feel now and how safe they would feel if

others carried guns on campus, 1,083 (9.2%) reported they would feel more safe, 7,418 (63.1%) reported that they would feel less safe, and 3,303 (28.0%) reported they would feel neither more nor less safe.

Turning to our three groups, Table 2 reveals a small decrease in the proportion of protection owners who said they would feel unsafe if others legally carried guns on campus (from 17.8% feel unsafe now to 14.6% would feel unsafe if others carried guns on campus; a 2.2% decrease). In contrast, the results revealed a large increase in the proportion of non-protection owners and non-owners who reported that they would feel unsafe, increasing from 7.7% to 61.7% for non-protection owners (a 700% increase), and from 6.4% to 79.9% for non-owners (a 1,150% increase). These findings suggest that allowing guns on campus would benefit a small group of protection owners, but would exact a substantial cost on everyone else. And once again, non-protection owners more closely resembled non-owners than protection owners in their responses.

### **Support for Legislation**

Consistent with Hypothesis 3, protection owners expressed greater support for concealed carry legislation than did non-owners and non-protection owners. Specifically, a one-way (3 groups) ANVOA revealed a significant effect of group,  $F(2, 1,257.87)=2,736.08, p<.0001, \eta_p^2=.81, 95\% \text{ CI } [.80, .83]$ . Protection owners reported greater support ( $M=4.16, SD=1.30$ ) than did non-protection owners ( $M=2.35, SD=1.56$ ) for legalizing concealed guns on campus,  $F(2, 10,024)=814.47, p<.0001, \eta_p^2=.14, 95\% \text{ CI } [.13, .15]$ . The latter group, in turn, reported greater support than did non-owners ( $M=1.82, SD=1.27$ ),  $F(2, 10,024)=79.15, p<.0001, \eta_p^2=.01, 95\% \text{ CI } [.01, .02]$ .

To better understand these responses we classified as *oppose* anyone who responded

“opposed” or “strongly opposed”, and classified as *support* anyone who responded “support” or “strongly support”. Across the three groups, between 4.6% and 5.9% of participants neither supported nor opposed allowing concealed guns on campus. Non-owners and protection owners were almost completely opposite in their support for legislation allowing concealed guns on campus (Figure 1). More interestingly, the responses of non-protection owners more closely resembled the responses of non-owners, suggesting again that protection concerns best predict attitudes toward guns on campus.

### **Judging the Safety of Others**

Although we made no a priori hypothesis, our data allowed us to test the accuracy of participants’ predictions of how others would feel if they personally carried a gun. Specifically, we tested the question, did participants err in their estimates of how safe others would feel if the respondent carried a gun? To address this question, we computed the average feeling of safety of all participants if others legally carried a gun on campus (the third safety item),  $N=11,376$ ;  $M=2.44$ ,  $SD=1.58$ . We then compared this average to how the three gun ownership groups responded to the fourth safety item using one-sample t-tests (see the fourth column of means in Table 1). Protection owners overestimated how safe others would feel ( $M=3.95$ ,  $SD=1.15$ ),  $t(1,895)=56.82$ ,  $p<.0001$ ,  $d=1.30$ , 95% CI [1.24, 1.37], and non-owners overestimated how unsafe others would feel ( $M=2.12$ ,  $SD=1.19$ ),  $t(6,677)=22.56$ ,  $p<.0001$ ,  $d=.28$ , 95% CI [.25, .30]. These findings suggest these two groups generalized their personal feelings of safety to others. The estimates of non-protection owners ( $M=2.46$ ,  $SD=1.32$ ) were similar to the responses provided by the entire sample,  $t(445)=.28$ ,  $p=.78$ ,  $d=.01$ , 95% CI [-.08, .11].

### **Estimates of Gun Crime on Campus**

Consistent with Hypothesis 4, participants overestimated that number of gun crimes on

campus. As is typical of frequency estimates, responses were heavily skewed by a few extreme estimates and required log-transformation. Table 3 presents the median, untransformed means, and log-transformed means for each group. The superscripts reflect the comparisons of the mean responses of the three groups within each item, and the comparison of the mean responses to each item within each group. Notably, only one gun-related crime occurred on the participants' campus during the prior 12 months. Thus, all three groups overestimated the number of past crimes. Our primary interest, however, was in differences in estimates between groups and across time periods (i.e., currently and in the future if the legislation passes to allow guns on the campus). A 3 (group)  $\times$  2 (time period item) mixed model ANOVA revealed a significant effect of time period ( $F(1, 9,688)=478.20, p<.0001, \eta_p^2=.05, 95\% \text{ CI } [.04, .06]$ ), a significant effect of group ( $F(2, 9,688)=280.40, p<.0001, \eta_p^2=.05, 95\% \text{ CI } [.05, .06]$ ) and a significant time period  $\times$  group interaction ( $F(2, 9,688)=1,276.81, p<.0001, \eta_p^2=.21, 95\% \text{ CI } [.19, .22]$ ). Again, we set alpha at .001 to reduce Type I error. We observed no difference between groups in the log-transformed estimates of past gun-related campus crime,  $F(2, 9,688)=1.12, p=.325$ .

Finally, participants' expectations about the effect on future gun crime of allowing guns on campus was consistent with Hypothesis 5. Protection owners estimated a decrease in gun-related crime if guns were allowed on campus,  $F(1, 9,688)=273.27, p<.0001, \eta_p^2=.03, 95\% \text{ CI } [.02, .03]$ . In contrast, non-owners and non-protection owners estimated that gun crimes would increase if guns were allowed on campus (for non-owners,  $F(1, 9,688)=5,725.75, p<.0001, \eta_p^2=.37, 95\% \text{ CI } [.36, .39]$ ; for protection owners,  $F(1, 9,688)=173.07, p<.0001, \eta_p^2=.02, 95\% \text{ CI } [.01, .02]$ ).

All of the results we report replicated, with some minor exceptions, on subgroups of the sample (e.g., faculty, staff, students, men, women, White, and non-White participants; see

supplemental results at (*withheld to maintain blind review process*)). The exceptions appeared due to a decrease in statistical power for underrepresented groups (e.g., non-White participants). Finally, at the suggestion of an anonymous reviewer, we reanalyzed the data after separating protection owners into two groups: gun owners who owned guns exclusively for protection reasons (exclusively protection owners;  $n=429$ ) and gun owners who owned guns for protection reasons and other reasons (multiple reason owners;  $n=1,453$ ). The new distinction had no effects on the comparisons with non-owners and non-protection owners. That is, both protection owner groups were significantly different from non-owners and non-protection owners in exactly the ways we observed when we analyzed the two types of protection owners as one group. The only new finding to emerge was that multiple reasons owners differed significantly from exclusively protection owners on most items. Compared with exclusively protection owners, multiple reason owners reported (1) greater support for concealed carry on campus, (2) that they felt less safe currently on campus, (3) that they and others would feel safer if they carried a gun on campus, (4) that they personally would feel safer if others carried guns on campus, and (5) that allowing concealed carry would reduce gun crimes on campus (all  $ps < .001$ ). Importantly, we had no a priori hypotheses regarding these analyses and any explanations we might generate for the results are entirely post hoc. We thus advise readers to interpret these exploratory findings cautiously.

### **Discussion**

Our study is the first to show that everyone—even protection gun owners—generally feels safe on their college campus where guns are not allowed. However, while everyone generally feels safe, we found group differences in current and anticipated safety. People who own guns for protection feel less safe—albeit, not unsafe—on their campus than do other groups.

They also believe that, if they carried a concealed gun, they and others would feel safer. Finally, protection owners supported legislation allowing concealed guns on campus and felt that if legislation allowed concealed carry on campus, campus gun violence would decrease. Non-owners and non-protection owners felt the opposite; they felt that safety feelings would decrease and campus gun violence would increase if people could legally carry guns on campus. Consistently, they opposed legislation allowing concealed guns on campus.

The percentages paint a more telling picture: they reveal a small decrease in the percent of protection owners (21% of our sample) who would feel unsafe if others carried guns on campus, but marked increases in the percent of non-protection owners and non-owners (79% of our sample) who report they would feel unsafe. The small benefit for the 21% of participants identified as protection owners occurs primarily because they already feel safe on campus. In short, allowing guns on campus produces a far greater decline in safety perceptions among non-owners (and non-protection owners) than an increase in safety perceptions among protection owners.

Importantly, protection-owners differed from non-protection owners on every outcome except estimates of past gun crimes on campus, with non-protection owners more closely resembling non-owners. These findings are consistent with our hypothesis that owning a gun for protection, and not gun ownership *per se*, is a meaningful indicator of differences in gun attitudes and perceptions. In addition, the findings suggest, consistent with our central argument, that protection owners believe that allowing concealed carry on campus will solve the problem of gun violence, whereas the two other groups believe that allowing concealed carry on campus will exacerbate it. Finally, these findings are consistent with recent evidence that groups with strongly held views (we cautiously propose that protection owners and non-owners hold their

views most strongly) anticipate more extreme consequences in response to a personally important policy change (Skitka, Hanson, & Wisneski, 2017).

Our theoretical position—that the need for safety underlies the positions of both proponents and opponents to gun restrictions—offers insights into why the same event, such as a campus or nightclub shooting, can evoke polarized responses. For protection owners, who feel safest when carrying a gun, the event reinforces the need to reduce restrictions on carrying guns; for others who feel safest when guns are absent, the event reinforces the need to increase gun restrictions. Importantly, we distinguished between gun owners for protection and non-protection reasons and showed that the two gun-owner groups differed in anticipated feelings of safety if allowed to carry a gun on campus. Although this finding might seem tautological, the protection motivation and the consequences for feelings of safety are distinct. Owning a gun does not automatically mean one will feel safe with guns on campus, even among protection owners. In addition, owning a gun for protection versus non-protection reasons predicts more than just personal safety when carrying a gun. It predicts support for allowing guns on campus, judgments of how safe others would feel if one carried a gun personally, judgments of how safe one would feel if others legally carried guns, and estimates of current gun crime and future gun crimes if people could legally carry guns on campus.

These data are correlational, limiting causal conclusions. Similarly, our sample comes from a single university in the United States. It remains unknown the extent to which our findings will replicate. However, our sample was large and representative of the campus community, and the campus itself is typical of large, land grant institutions in the United States. Moreover, the more general findings regarding how the campus community feels about guns on campus, and how gun owners and non-owners feel about guns on campus are comparable to

other studies surveying gun-attitudes on college campuses (Patten, Thomas, & Wada, 2013; Thompson et al., 2013; Tversky & Kahneman, 1973). Thus, we have every reason to believe that our findings are generalizable to other college campuses. We cannot exclude the possibility that the protection owners may differ from the other two groups in our study in important ways (such as level of paranoia) that may account for our findings. Finally, we opted not to counterbalance items because pilot participants reported confusion when we counterbalanced items. Thus, it is possible that responses to items completed earlier in the survey influenced responses to items completed later in the survey.

Our study and findings offer several important contributions. First, proponents and opponents of gun rights and gun control typically differentiate between gun owners and non-owners, neglecting whether people own guns for protection. The current research corrects this oversight, advocating that a fundamental psychological motivation—the need for safety—can drive thinking, affect, and behavior (Kenrick et al., 2010). More importantly, our findings illustrate the “owner versus non-owner” dichotomy is less useful than previously thought.

Second, our research illustrates the valuable contributions psychologists can make to understanding gun perceptions and attitudes. Psychologists have mostly been absent from the field of gun research, yet could contribute substantially to explaining perceptions, affect, attitudes, behavior, needs, motivations, aggression, and violence, as demonstrated by the current findings. Our research represents a first step in addressing this absence by revealing that safety concerns are fundamentally important in predicting support for gun legislation and perceptions of safety and crime. It also illustrates the unique perspective that psychologists offer to this complex political issue, an approach that may transform how other researchers and policymakers think about gun proponents and opponents and ultimately, gun laws.

Everyone wants—and deserves—to feel safe. Many gun advocates and gun opponents likely perceive the other as unreasonably insensitive to their safety needs. The current research offers insight into this seemingly intractable disagreement. We speculate that the insensitivity arises from both groups failing to see beyond their own safety needs and failing to recognize that exclusive satisfaction of their personal safety needs threatens satisfaction of the other group's need. The groups share the same safety need but endorse different paths to satisfying that need. Until now, the scientific literature has overlooked this crucial difference. The current findings help correct this neglect, allowing for the generation of new hypotheses about conflict, violence, and crime, and new avenues for resolving the debate on gun rights and restrictions.

Campuses are already safe zones, as indicated by the low level of gun violence on campus reported in the prior year, the safety reports of our participants, and the reports of participants in other studies (Fox & Savage, 2009; Henson & Stone, 1999; Patten, Thomas, & Wada, 2013; Thompson et al., 2013). Campuses are particularly safe in comparison to the cities and communities that surround them (Volkwein, Szelest, & Lizotte, 1995). Although allowing guns on campus will produce an unknown effect on actual safety, our findings suggest that doing so may jeopardize feelings of safety for much of the campus community. The policy implications are clear: policy makers should consider the consequences of gun policies for safety needs or face opposition.

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Table 1. Mean Judgments of Safety

Gun Ownership Group ( <i>n</i> ; % of total sample)	How safe do you currently feel?		How safe would you feel if you carried a gun?		How safe would you feel if others carried a gun?		How safe would others feel if you carried a gun?	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Do Not Own a Gun (6,492; 73.7%)	4.22 <sup>a</sup>	(0.89)	2.75 <sup>c</sup>	(1.43)	1.88 <sup>f</sup>	(1.27)	2.12 <sup>e</sup>	(1.19)
Own Exclusively for Non-Protection Reasons (437; 5.0%)	4.26 <sup>a</sup>	(0.96)	3.28 <sup>b</sup>	(1.47)	2.41 <sup>d</sup>	(1.51)	2.46 <sup>d</sup>	(1.32)
Own for Protection Reason (1,882; 21.4%)	3.62 <sup>d</sup>	(1.06)	4.62 <sup>a</sup>	(0.84)	4.14 <sup>b</sup>	(1.24)	3.95 <sup>c</sup>	(1.15)
All Participants (10,225 to 11,376)	4.09 <sup>a</sup>	(0.97)	3.25 <sup>b</sup>	(1.52)	2.44 <sup>d</sup>	(1.58)	2.54 <sup>c</sup>	(1.40)

*Note.* For the first three rows of data, means within rows and columns with different superscripts differ at  $p < .001$ . For all items, 1 = *not at all safe*; 5 = *very safe*. The bottom row of data includes all participants regardless of whether they responded to the item about gun ownership or to all four safety items.

Table 2. Percentage of Participants Feeling Safe by Item

Gun Ownership Group	How safe do you currently feel?	How safe would you feel if you carried a gun?	How safe would you feel if others carried a gun?	How safe would others feel if you carried a gun?
Do Not Own a Gun ( $n = 6,492$ )				
% Unsafe	6.4	45.9	79.0	67.5
% Neither	7.7	22.9	4.7	19.5
% Safe	86.0	31.2	16.3	13.0
Own Exclusively for Non-Protection Reasons ( $n = 427$ )				
% Unsafe	7.7	29.4	61.7	56.3
% Neither	6.9	25.4	7.0	20.0
% Safe	85.5	45.2	31.3	23.8
Own for Protection Reason ( $n = 1,882$ )				
% Unsafe	17.8	4.3	14.6	12.1
% Neither	20.8	5.8	6.1	19.0
% Safe	62.2	89.9	79.3	68.9
All participants ( $n = 10,225$ to $11,376$ )				
% Unsafe	9.2	34.7	63.1	54.2
% Neither	10.7	19.2	5.3	19.9
% Safe	80.2	46.1	31.6	25.9

Table 3. Mean Estimates of Gun Crimes

	Estimates of Past Gun Crimes					Estimates of Future Gun Crimes if Guns Allowed on Campus				
	Untransformed			Log Transformed		Untransformed			Log Transformed	
Gun Ownership Group ( <i>n</i> )	<i>Md</i>	<i>M</i>	( <i>SD</i> )	<i>M</i>	( <i>SD</i> )	<i>Md</i>	<i>M</i>	( <i>SD</i> )	<i>M</i>	( <i>SD</i> )
Do Not Own a Gun (7,121)	5	10.16	(23.35)	.75 <sup>c</sup>	(.47)	12	30.11	(132.15)	1.14 <sup>a</sup>	(.53)
Own Exclusively for Non-Protection Reasons (488)	4	9.05	(18.51)	.72 <sup>c</sup>	(.45)	10	19.72	(38.91)	.98 <sup>b</sup>	(.53)
Own for Protection Reason (2,082)	5	10.95	(28.32)	.76 <sup>c</sup>	(.47)	2	8.26	(21.54)	.60 <sup>d</sup>	(.50)

*Note.* Means within rows and columns with different subscripts differ at  $p < .001$ .

Figure 1. Support for allowing concealed guns on campus.

