Hypothesis: Playing a video game featuring a powerful, attractive rendition of a real-world firearm will increase perceptions that the real-world firearm is powerful, effective, and desirable. Furthermore, it will increase the perceived normativity of owning a firearm. Therefore, we hypothesized a 2 Gun × 2 Power interaction such that participants in the strong AR-15 condition would like the AR-15 more, and participants in the weak AR-15 condition would like the AR-15 less, relative to the plasma rifle conditions, which would act as control conditions.

Method:

The study design was a 2 (Character’s gun: AR-15 or plasma rifle) × 2 (Gun power: strong or poor) between-subjects design.

Participants played one of four modified versions of the first-person-shooter video game *Doom*. Players had to make their way through a series of levels, fighting through zombies and demons. Enemies would try to bit the player or shoot the player with guns or fireballs. The player had to shoot the enemies, pick up health and ammo power-ups, and make it to the end of each level. If the player took too many wounds, the player’s health would be depleted and the level would have to be attempted again.

Character’s gun: In each version of the game, the player-character had only a single gun. In the AR-15 condition, this was a realistic rendition of the AR-15 Bushmaster rifle, a popular home-defense and general-purpose rifle. Like its real-world counterpart, the virtual AR-15 was a semi-automatic rifle (e.g. it fired one round at a time, but did not need to be manually rechambered between rounds) with a 20-round magazine. When the player fired the rifle, it would fire at a steady pace; after 20 rounds, it would have to be reloaded.

In the plasma rifle condition, the player-character instead had a science-fiction rifle we called the “Martian ZQ-5 Plasma Rifle.” Its properties (e.g., rate of fire, damage per bullet, rounds per magazine, accuracy) were kept identical to the virtual AR-15.

To strengthen the manipulation, a description of the assigned gun was given in the cover story. Moreover, a picture-in-picture icon of the gun and its name was presented bilaterally on the game screen (see Figure).

Gun power: To make the player’s gun more or less desirable, its in-game properties were manipulated. In the strong gun condition, the gun fired with perfect accuracy, the bullets dealt substantial damage, and the rate of fire was moderate and steady. To augment the player’s perception of the gun’s strength, the gun had a deep, strong report and would shake the screen slightly when fired. Furthermore, enemies shot by the rifle would sometimes burst into gore, losing chunks of flesh or even limbs.

In the weak gun condition, the gun fired with rather less accuracy, the bullets dealt substantially less damage, and the rate of fire was slower. The gun did not shake the screen when fired, and its report was anemic. Enemies shot by the rifle always died with the same, less dramatic animation, and did not lose chunks or parts.

A full table of statistics for the weak and strong guns is provided in Table X. The .wad game files for all four conditions are available online at XXXXXX.

**Analysis**

**Manipulation check.** Participants in the strong gun condition reported feeling significantly more

**Gun desire.** We conducted a 2 (Gun) × 2 (Power) ANOVA.