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“Smart” Guns Backgrounder

What is a “smart” or “personalized” gun?

The concept behind the “smart” or “personalized” gun is to design and market a firearm which prevents anyone but an “authorized user” from firing it. Common points made in support of such weapons are that they would prevent the fatal misuse of firearms by children and teens while rendering stolen weapons useless.

This backgrounder asks questions that should be part of any discussion on “smart” guns, their possible feasibility, and their potential effect on the more than 33,000 gun deaths that occur each year in the United States.

How would personalization technology apply to the guns Americans already own?

It is estimated that the total number of firearms available to civilians in the United States is 310 million: 114 million handguns, 110 million rifles, and 86 million shotguns. None, of course, are personalized. Smart guns would have no impact on firearms already in circulation. The most optimistic claims about the smart gun’s potential benefits are put forth as if *all* guns would be personalized as soon as *any* were personalized.

In fact, we can expect that smart gun owners would almost always own non-personalized firearms as well. According to a 2007 study published in *Injury Prevention* looking at the our nation’s gun stock in 2004 (“The U.S. Gun Stock: Results From the 2004 National Firearms Survey”), 48 percent of all individual gun owners, corresponding to 13 percent of the U.S. adult population, reported owning four or more guns. Household gun ownership followed a similar pattern, with 41 percent of gun-owning households reporting ownership of four or more firearms. The study found, “The 20% of gun owners who owned the most guns possessed about 65% of the nation’s guns.” In other words, most households that have guns in them would have non-personalized guns in them, unless typical gun owners disposed of all of their other firearms.

Even if gun owners did exchange all their currently owned handguns for personalized guns, they might simply be trading one lethal problem for another. According to survey data from *Guns in America: Results of a Comprehensive National Survey on Firearms Ownership and Use*, published in 1997 by the Police Foundation, at the time of the survey more than three quarters of handguns possessed by private individuals held fewer than 10 rounds of ammunition reflecting the fact that most were revolvers. Handguns produced today are primarily high-capacity, higher-caliber pistols with magazines with a capacity that can range up to more than 30 rounds. Gun

owners who “trade up” to smart guns would generally get a pistol of higher caliber and capacity. Therefore, the introduction of personalized guns could greatly increase the lethality of the country's privately held gun stock.

What effect would personalized guns have on suicide?

Suicide is the leading cause of firearm-related death in America (21,334 incidents in 2014). Gun owners can, of course, commit suicide using their own firearms, whether they are personalized or not. But what would the effect of smart guns be on youth and young adults?

Many young people in fact own guns themselves or have access to guns with parental permission. A 1998 *New York Times* national poll of 13- to 17-year-olds found that *15 percent owned their own gun*. These teenagers would be “authorized” gun users—as would be many more who are granted access to their parents’ guns—and personalized guns would make no difference if they attempted suicide. Older teenagers, who are most likely to have access to guns with parental approval, also account for the vast majority of teen suicides. Of the 1,145 firearm suicides that involved victims under the age of 21 in 2014: 174 were age 14 or younger and 971 were ages 15 to 20.

What effect would personalized guns have on homicides?

In 2014, 10,945 Americans lost their lives in gun homicides. It would be a fairly unusual murder that is committed by a perpetrator using someone else's gun. Homicides occur most frequently between people who know one another—often spouses, intimate acquaintances, or other family members—typically as the result of an argument. Particularly in these scenarios, there is little reason to assume that assailants would not be using their own guns, personalized or not.

What effect would personalized guns have on fatal unintentional injuries?

While smart gun advocates frequently focus on the tragic deaths of young children, they are in fact a small portion of overall fatalities in this category. Of the 586 fatal unintentional shootings in 2014, 74 were deaths of children under the age of 18—which could likely be prevented by the use of existing technology such as an effective trigger locking device.

Looking at adult unintentional deaths, a 1996 study published in the *Journal of the American Medical Association* (“Unintentional, Nonfatal Firearm-Related Injuries: A Preventable Public Health Burden”) found that the most common activity associated with unintentional discharges is the cleaning of a gun, and the second most common circumstance is hunting. In both of these activities, the “authorized” user would be in control of the firearm.

What effect would personalization have on the criminal market for guns?

Would personalized guns strike a serious blow to the criminal market for guns? Assuming that personalization technology would allow for multiple users or a series of users, such technology would have no effect on “straw purchases” of guns—sales to a legal “front man” (the “straw purchaser”) who then transfers the weapons to criminals or others banned from firearm possession. Straw purchases are the most common method used to obtain guns illegally. The straw purchaser would know the procedures necessary to “authorize” these illegal users or any other purchaser.

What effect would personalization have on the theft of firearms?

While a personalized gun may be less likely to be stolen, it is highly optimistic to assume that thieves will stop attempting to steal any of the millions of guns already owned by Americans on the off-chance they may come across a personalized gun. This is especially true since, in the past, some gun companies have promised that their personalized gun would look like any other handgun. Assuming a stolen smart gun did function as promised, and that the personalization technology was not obtained during the theft, the technology could impact the misuse of a stolen gun.

Would smart guns entice individuals who otherwise wouldn't buy a gun to bring a weapon into their home?

Making smart guns available could increase the chances of selling guns to Americans who currently do not own them. A March 1997 survey conducted by the National Opinion Research Center found that, of respondents who were “unlikely to buy a gun in the future,” *35 percent would “consider buying a handgun that would only fire for the owner of the gun.”* Packaged with a strong sales pitch, the technology could penetrate new markets for a gun industry that is facing long-term declines in household and personal gun ownership, putting more families at risk from the well-documented hazards that accompany bringing a gun into a previously gun-free home.

Are there other ways to help prevent deaths and injuries from firearms?

Any safety device, no matter how high-tech, can address only a small percentage of the annual toll of more than 33,000 lives taken by firearms in the U.S. each year. Yet there are less complicated, less expensive safety mechanisms that exist today that could be integrated easily into every new gun. Adjusting the trigger pull on some handguns that currently require very little strength to fire the weapon could help prevent unintentional shootings, especially by children. Any type of “positive safety” device would also decrease the frequency of unintentional discharges. Incidents when guns are fired because people thought they were not loaded could be reduced by adding load indicators and magazine disconnects. High-quality trigger locking devices can deter suicide and unintentional injuries if they are used properly. Legislation mandating minimum standards for safety locks to ensure they work to prevent

unauthorized access to all firearms possessed by an individual coupled with state laws mandating safe storage could ultimately have a more immediate and far-reaching effect than laws mandating incorporation of smart gun technology.

It is also important to remember that the firearms industry is essentially a low-tech industry that operates on slim profit margins. Whether gunmakers have the manufacturing expertise and integrity to implement reliable smart gun technology remains an open question. Safety defects in standard firearms are common. Reportedly, the National Shooting Sports Foundation acknowledges that 40 percent of all new guns contain some type of defect, a fact that prompted *Truth About Guns*, a pro-gun blog, to observe: “No other industry could survive with a failure rate like this.” A valid question is whether the industry as a whole would have the expertise and resources necessary to implement such technology unless mandated.

What is the view of the Violence Policy Center on personalized guns?

Firearms are currently exempt from the health and safety laws that apply to every other consumer product in America, from toasters to teddy bears. Applying those same standards to guns would be a major step forward in reducing gun death and injury in America.

The Violence Policy Center currently has no position on personalized guns, but feels strongly that any discussion of these proposed weapons for the civilian marketplace should include a realistic assessment of what such technology can actually achieve as well as any attendant risks.

The Violence Policy Center *does* oppose the use of any federal tax dollars in support of smart gun research. Such resources would be far better spent on any number of components of an effective gun violence prevention strategy, including: research on firearms violence; expansion of comprehensive systems to measure firearms injury and death; the identification and support of effective youth violence prevention programs; and, public education efforts focusing on the risks associated with bringing a gun into the home.