Nicotine: not just an unregulated poison but now a potential chemical weapon

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The perceived threat of terrorism has persuaded people to accept more and more constraints on their liberties. Airline passengers must partially undress before passing through a metal detector. They must remove from their hand luggage anything appearing on a long list of prohibited items ranging from the obvious (e.g. dynamite) to the bizarre (e.g. snow globes). They accepted, reluctantly, the confiscation of vast amounts of toiletries condemned for failing to fit in an arbitrarily sized plastic bag. In some countries they accept that their communications will be intercepted and they will be followed by closed circuit television cameras. The amateur physicists and biologists among them understand that, should they want to purchase some uranium or ricin for experiments at home, they will be unable to.

The justification for these constraints is the need to take any measure that might possibly reduce the risk of terrorism.¹ Unlike virtually every other area of risk management, there is little regard for the actual magnitude of the risk, or indeed, as in the case of the so-called liquid bomb plot, whether it is even possible. There is still less regard for whether the responses are in any way effective,² typically responding to the last viable threat but unable to anticipate the next one, exemplified by the observation that, while there have been no recent cases of terrorists being apprehended with bombs during airport security screening, those who really did have bombs passed straight through.

There is, however, one exception to the imperative to take any conceivable measure that might, even if only theoretically, reduce risk. It involves anything that may impinge on the prospects of the tobacco industry. Despite the fact that one of the individuals who attempted to bring down a transatlantic plane did so by setting light to a bomb concealed in his shoes, and it is probably not a good idea to light a fire on a plane in flight, cigarette lighters are not on the list of prohibited items.

This seemingly remarkable failure to act is not, however, unique. In early 2011, Anders Behring Breivik, a Norwegian right-wing extremist, began to research a means of creating poisoned bullets. In his ‘manifesto’³ subsequently published online, he noted that ‘a relatively simple process will convert hollow point and even standard ammunition – lead or other alloy bullets into hollow bullets. These hollow projectiles are then injected with a biological or chemical toxin… [converting] your projectile weapon into a chemical or biological weapon’. His criteria for selecting the poison were ease of obtaining it and lethality (measured as the LD50, or dose required to kill 50% of 75 kg adults). After careful consideration of alternatives, including heroin, various insecticides and cyanide, he concludes that the ideal is nicotine. He notes that while pure nicotine has a slightly higher LD50 than cyanide, unlike almost all of the other substances he considered, it can be purchased without restriction. Indeed, he helpfully supplies a draft letter than can be used to order it from chemical suppliers, ostensibly for use in electronic cigarettes. He even provides addresses of such suppliers, indicating that he ‘received the 50 ml of 99% pure liquid nicotine shipment from China’, and was ‘relieved to see that there were no complications whatsoever’. At the time of writing it is still not clear whether Breivik did inject his bullets with nicotine and, even if he had, it is likely that the temperature achieved by a bullet being fired would have degraded much of it, but it is inevitable that his words will attract others considering similar actions and who will devise alternative, and more reliable means of delivery.

It is unimaginable that governments would have failed to restrict access to any other poison that had been used, or was threatened to be used, in such circumstances. Yet nicotine retains its privileged position as an active pharmacological agent that is largely exempt from regulation (except paradoxically, when being sold as a means to assist quitting smoking).⁴ There were already strong arguments for regulating the sale of nicotine,⁵ most obviously by licensing it as a drug, as has been proposed in Iceland. The tragic events in Oslo make the argument overwhelming. Otherwise, we will be forced to conclude that, once again, the tobacco industry is exempt from the laws to which everyone else is subject.

References


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