

## Resilience against the Weaponized Narrative and Disinformation:

### Defending America's national security against adversary information operations

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Recent advances in cognitive science have demonstrated flaws that multiply vulnerability to disinformation. This is particularly true for the cutting-edge modernization of disinformation, the weaponized narrative. Adversaries use this vulnerability to manipulate the Americans and undermine America's national security. National security is not, and cannot be, based solely on defense capabilities. Security also requires the will to use existing capabilities to defend national interests. If an adversary can persuade the American public to remain uninvolved in a given event, that adversary has defeated the U.S., in a practical sense, without ever having a direct clash. The U.S. could be neutralized, and national security compromised, by persuading enough Americans that Crimea, the South China Sea, Syria, or any other event is not important enough to address.

To persuade Americans, adversaries exploit cognitive flaws. These flaws make it challenging for citizens to evaluate issues. For example, people tend to believe what is in their own best interest<sup>i</sup>. The desire to stay out of a foreign conflict makes it easier to make the case for nonintervention. Adversaries pretend to be like us,<sup>ii</sup> or an authority figure,<sup>iii</sup> to strengthen their credibility. Framing<sup>iv</sup> disinformation in simple, vivid stories make it appear more believable. Repetition reinforces disinformation, making it seem convincing<sup>v</sup> and preferable<sup>vi</sup>. Moreover, most people believe that their choices are sound, and resist efforts to persuade them otherwise<sup>vii</sup>. Few Americans are skilled at detecting this kind of manipulation, but belief that they can detect disinformation is common<sup>viii</sup>, even if one believes that others are being manipulated<sup>ix</sup>. The synergy among these flaws makes Americans vulnerable. Worse, it magnifies that vulnerability by a lack of awareness. Realizing that a vulnerability exists is a prerequisite to addressing it.

With that in mind, study of the weaponized narrative merits further effort. The agenda below is not meant to be sequential. However, each step should advise other steps for refinement in objectives and methodology. Steps can also coordinate for efficient use of allotted resources. Potential areas for productive research have clear links to psychology, neuroscience, and cognitive science. Beyond those areas, some studies could address anthropological and sociological considerations of the effect of adversary disinformation on American society at a systemic level. Other research could consider vulnerable groups through demography, economics, political science, and related statistics. Avenues of exploration might include the below steps.

First, document the scope of the threat to American national security. Link available tools (to include applicable existing research) to threat areas. The current (February 2015) National Security Strategy<sup>x</sup> calls for stronger national defense. Still, a powerful military means little if adversaries target the national will and prevent military action. Adversaries recognize will as a U.S. center of gravity. Similarly, it is crucial to reinforce our homeland security. Tailored manipulation of the vulnerable, at home or overseas, can persuade them to strike U.S. people and places as "lone wolves." Identifying weaponized narratives adversaries use is necessary to prevent and counter violent extremism. Adversaries also target vulnerable groups, persuading them to be vocal, or even violent, to express their grievances. At best, this creates factionalism. At worst it can stoke violence. A particularly promising avenue of research involves computational propaganda. Using advanced automated communication tools, including artificial intelligence, could increase the effectiveness of disinformation by orders of magnitude<sup>xi</sup>. We must pair documenting the scope of the problem with documenting research into the problem and concepts for potential answers. A single source for the key research and promising paths towards solutions must be

developed and publicized. A common knowledge base for academics and policymakers would inform further study and keep resources from being wasted repeating research unnecessarily.

Second, document gap areas in available information, particularly among vulnerable populations. Disinformation is more effective when information is lacking; rumors spring up- or are introduced-to link known information into a coherent structure<sup>xii</sup>. An adversary can weave these rumors or other stories together to support a weaponized narrative that undermines national security. Further, a narrative can be hard to recognize as dangerous. A story targeted at specific groups may seem ineffective from a traditional standpoint, but be very effective with a targeted, vulnerable group.<sup>xiii</sup> We must develop indications and warning to distinguish the benign from the malignant. This is a crucial step towards reinforcing homeland security. It also helps combat terrorism. Security, at home or overseas, requires a legitimate authority. A weaponized narrative that undermines legitimacy undermine security. On a positive note, narratives are strategic, even global. Preventing or countering adversary narratives can create strategic benefits.

Third, develop objective, data-based methods for identifying weaponized narratives and their supporting stories. Develop an ironclad consensus around these methods. By following these methods, groups can reclaim credibility when presenting facts. In short, work towards a “checklist” to separate factual information and “news” from opinion or “fake news.” In a related vein, research the relative power of information. Traditional “bell curve” distributions seem less applicable to information than power law distributions or geometric progressions. We see millions of YouTube videos made available, with only a handful trending. However, that trending handful reaches millions of viewers. We’ve used epidemiological models to visualize word of mouth. What are the best methods to model the effectiveness of modern communication? This is of especial importance to intelligence analysis. Traditional intelligence analysis relies on geography. The information environment allows for few boundaries. Traditional intelligence is organized by adversary or region. Narratives may be difficult to attribute to a specific enemy. And traditional intelligence measure threat by addition, such as number of troops or weapon systems. Weaponized narratives only require one story to change policy (e.g., “Blackhawk Down” in Mogadishu). Methods of observing and estimating threat levels in the physical world do not often apply to the narrative warfare environment.

Fourth, outline recommendations to modify standard courses of study. Help Americans develop narrative resilience through broader education on critical thinking and improved distribution of simple analytical tools. Support the ability to recognize and reject attempted manipulation and disinformation. Even teaching English to vulnerable groups could help defense and counter-terrorism. Access to the many news sources in English, and communication with Americans in a human, connecting way, might inhibit radicalization. Narrative is a low-cost weapon. Its asymmetric effects on open societies can be powerful. As communications technology improves and expands, narrative will likely cost less and benefit its users more, resulting in more groups using narrative. Whether the benign or malignant uses win out may be up to us.

Fifth, research network formation and streamlining for narrative circulation. Support education on organizational enhancement to empower crowdsourced opposition to adversaries’ weaponized narratives. Adversaries use similar techniques through “patriotic hackers,<sup>xivxxvi</sup>” but counter-organizations like Bellingcat use crowdsourcing to counter nations. Their success shows in their work to debunk Russian narratives of the flight MH17 shootdown.<sup>xvii</sup> This line of research could also adopt social network study of what makes influential participants influential. Adversary weaponized narrative can create and spread stories too rapidly for direct counteraction, especially with computational

propaganda. However, a network of educated Americans could lead society to develop narrative resilience and resistance.

Weaponized narrative parallels weaponized disease. Modern scientists better understand disease resistance. Adversaries use that knowledge to tailor diseases to be more dangerous, easier to acquire and transmit, and harder to resist. Modern scientists also better understand the mind. Adversaries use that to tailor messages to be more dangerous, easier to accept and pass along, and harder to resist. Individuals may even become carriers, infecting others with the stories. Story “infection” aids the enemy, despite good intentions.<sup>xviii</sup> Given its ability to spread, a narrative may be the only weapon whose area of effect could be global.

Decades ago, the power of nuclear weapons required new research. Now, the power of weaponized narrative requires new research. No one should mistake natural anthrax for weaponized anthrax designed for speed of transmission, virulence and exploitation of vulnerabilities in the body to destroy the ability to fight. Likewise, no one should mistake natural narrative for weaponized narrative designed for speed of transmission, virulence, and exploitation of cognitive vulnerabilities in the mind to destroy the will. Doing so means risking America’s national security. Defending the body but sacrificing the will still means defeat.

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## References

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- <sup>ii</sup> In-group favoritism: See Aronson, E., Wilson, T. D., & Akert, R. (2010). *Social psychology*. 7th ed. Upper Saddle River: Prentice Hall; and Taylor, Donald M.; Doria, Janet R. (April 1981). "Self-serving and group-serving bias in attribution". *Journal of Social Psychology*. **113** (2): 201–211.
- <sup>iii</sup> Authority bias- Milgram, Stanley (1963). "Behavioral Study of obedience.". *The Journal of Abnormal and Social Psychology*. 67 (4). Jul 1963; and Ellis RM (2015). *Middle Way Philosophy: Omnibus Edition*. Lulu Press, Inc.; and Milgram S *Obedience to Authority: An Experimental View* (1974)
- <sup>iv</sup> Framing effect: See Plous, Scott (1993). *The psychology of judgment and decision making*. McGraw-Hill; and Tversky, Amos; Kahneman, Daniel (1981). "The Framing of decisions and the psychology of choice". *Science*. **211** (4481): 453–458.
- <sup>v</sup> See Illusory truth effect-*The Truth Effect and Other Processing Fluency Miracles*". *Science Blogs*. *Science Blogs*. Retrieved 30 December 2016.; and Hasher, Lynn; Goldstein, David; Toppino, Thomas (1977). "Frequency and the conference of referential validity" (PDF). *Journal of Verbal Learning and Verbal Behavior*. 16 (1): 107–112.
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- <sup>vii</sup> Confirmation bias- *Plous, Scott* (1993). *The Psychology of Judgment and Decision Making*. p. 233.; Nickerson, Raymond S. (June 1998). "Confirmation Bias: A Ubiquitous Phenomenon in Many Guises". *Review of General Psychology*. **2** (2): 175–220.; See also the Semmelweis reflex, Levitt, Steven D (2009). "4". *Super Freakonomics*. William Morrow; and Wilson, Robert Anton (1991). *The Game of Life*. New Falcon Publications.
- <sup>viii</sup> Naïve realism- Ross, L., & Ward, A. (1996). Naive realism in everyday life: Implications for social conflict and misunderstanding. In T. Brown, E. S. Reed & E. Turiel (Eds.), *Values and Knowledge* (pp. 103–135). Hillsdale, NJ: Erlbaum; Griffin, D., & Ross, L. (1991). Subjective construal, social inference, and human misunderstanding. In M. P. Zanna (Ed.), *Advances in Experimental Social Psychology* (pp. 319–359). San Diego, CA: Academic Press; see also the Dunning- Kruger effect- Kruger, Justin; Dunning, David (1999). "Unskilled and Unaware of It: How Difficulties in Recognizing One's Own Incompetence Lead to Inflated Self-Assessments". *Journal of Personality and Social Psychology*. 77 (6): 1121–34; and Kruger, Justin; Dunning, David (1999). "Unskilled and Unaware of It: How Difficulties in Recognizing One's Own Incompetence Lead to Inflated Self-Assessments". *Journal of Personality and Social Psychology*. 77 (6): 1121–34.
- <sup>ix</sup> Third person effect- Davison, W. (1983). "The third-person effect in communication". *Public Opinion Quarterly*. 47 (1): 1–15.
- <sup>x</sup> <http://nssarchive.us/wp-content/uploads/2015/02/2015.pdf>; Accessed 8 June, 2017
- <sup>xi</sup> See Matt Chessen's article: <https://medium.com/artificial-intelligence-policy-laws-and-ethics/artificial-intelligence-chatbots-will-overwhelm-human-speech-online-the-rise-of-madcoms-e007818f31a1>. See also

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<http://comprop.oi.ox.ac.uk/> for more on computational propaganda, and  
<https://www.state.gov/documents/organization/271028.pdf> for more on how public diplomacy is adapting

<sup>xii</sup> See Bernardi, Daniel L, Pauline Cheong, Chris Lundry, and Scott Ruston; *Narrative landmines: rumor, Islamist extremism, and the Struggle for Strategic Influence*; Rutgers University Press: New Brunswick 2012

<sup>xiii</sup> For more on how non-traditional narrative can influence differing cultures, see Maan, A. (2015) *Narrative Approach to Interethnic Conflicts: Narrative Templates as Cultural Limiters to Narrative Transformations*. *Conflict and Narrative: Explorations in Theory and Practice*, 2(1), pp. 78-89.

<sup>xiv</sup> <http://www.nbcchicago.com/news/local/Patriotic-Hackers-Cyber-War-Against-Terrorists-292825571.html>

<sup>xv</sup> <http://world.time.com/2013/02/21/chinas-red-hackers-the-tale-of-one-patriotic-cyberwarrior/>

<sup>xvi</sup> <http://www.foxnews.com/politics/2016/01/16/patriotic-hackers-attacking-on-behalf-mother-russia.html>

<sup>xvii</sup> <https://www.rferl.org/a/ukraine-bellingcat-mh17/27715129.html>

<sup>xviii</sup> <https://www.linkedin.com/pulse/participatory-propaganda-model-alicia-wanless>