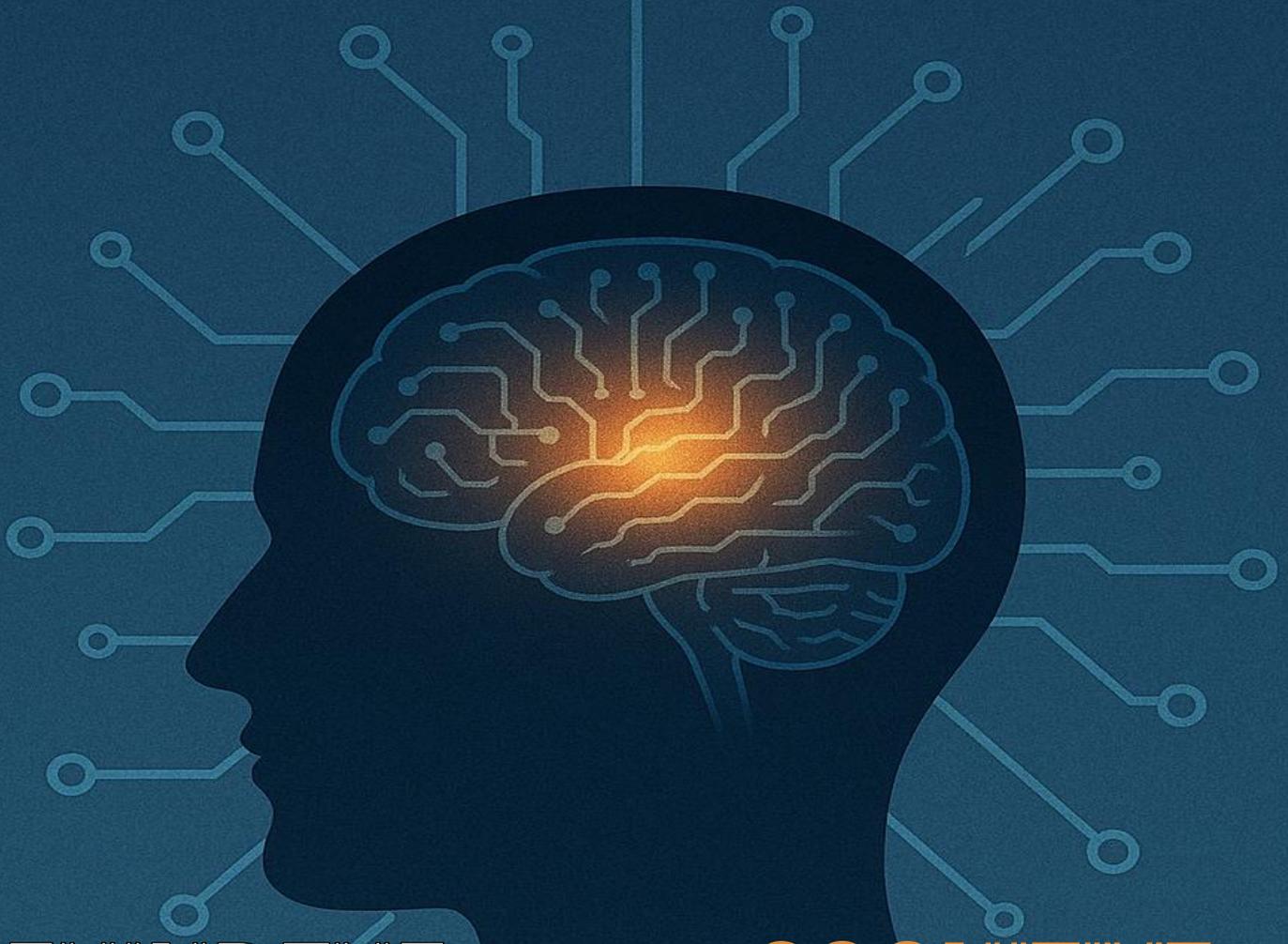


Applied Cognitive Effects Newsletter

PERCEPTION



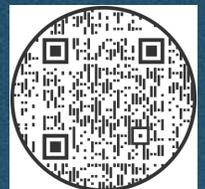
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COGNITIVE WARFARE:

“IT’S NOT WHAT YOU LOOK AT THAT MATTERS, IT’S WHAT YOU SEE.”

HENRY DAVID THOREAU



In Focus: The Ace Team

The threat is clear: adversaries are actively waging cognitive warfare against Allies today, shaping the Information Environment (IE), undermining societal cohesion, and weakening political resolve. NATO can no longer afford to debate the reality of this battlespace or hesitate over the necessity of action. The problem is known, the vulnerabilities are evident, and the time for serious investment is now.



This is the role of the **Applied Cognitive Effects (ACE)** team within HQ SACT. Established to implement NATO's **Cognitive Warfare Concept**, ACE serves as the hub for turning ideas into practice. Our current mission is to integrate cognitive considerations into doctrine, education/training, exercises, wargaming, future strategy and Agentic Warfare—ensuring the Alliance develops the tools, skills, and foresight required to meet today's challenges. Together, these efforts aim to embed cognitive awareness, resilience, and decision advantage into the core of Alliance practice. We exist to advance NATO's behaviour-centric approach, aligning strategic concepts with practical methods that empower the Alliance to operate effectively in the cognitive environment.

Cognitive warfare is about more than defence; it is about building the conditions for cognitive superiority across the Alliance. Through collaboration, foresight, and innovation, the ACE team is working to ensure that NATO not only understands the cognitive dimension but leads in it.

Events

[WHERE TO FIND US AND WHAT WE ARE SUPPORTING](#)

8 October 2025

Digital Frontlines Conference Riga, Latvia

This event offers an important opportunity to examine how emerging technologies, particularly AI and social media ecosystems, are reshaping cognition, decision-making, and resilience.

13-17 October 2025

Innovation Continuum's SHINE – Istanbul, Türkiye

Members from the ACE team and NCIA will be conducting a field test to identify the cognitive implications of using Artificial Intelligence tools to support operational planning and measure the cognitive impact it has on decision-makers.

22 October 2025

The Air University Innovation Accelerator (AUIX) - LEDx: Destruction and Creation

Attendees will explore topics such as narrative disruption, information overload, memetic influence, and the strategic implications of perception manipulation in the age of algorithmic and cognitive warfare.

17-20 November 2025

Concept Development & Wargaming in Nato Conference 2025 – Verona, Italy

NATO Applied Cognitive Effects and Wargaming teams showcase behaviour-centric approaches in alliance transformation.

Layered Resilience Conference / RED Hyena

NATO Applied Cognitive Effects and Wargaming teams showcase behaviour-centric approaches in alliance transformation.

Research

Advantages of the Connective Strategic Narrative During the Russian-Ukrainian War - By Artem Zakharchenko

Ukraine's success in the information domain during the Russian invasion stemmed from a "**connective strategic narrative**" a narrative created not solely by elites, but collectively by ordinary citizens on social media. Unlike Russia's centralized and rigid propaganda, the Ukrainian narrative was grassroots, adaptive, emotionally resonant, and inclusive, blending official statements with memes, personal stories, folklore, and calls to action. This decentralized model gave Ukraine a stronger ability to mobilize resilience, shape identity, and counter disinformation.

However, grassroots-driven narratives are vulnerable to fatigue, internal divisions, and manipulation through AI-enhanced propaganda if not maintained carefully.

[Link to Article Here](#)

Recommendations:

- **Strengthen and Sustain Grassroots**

Participation: Encourage continued citizen-driven storytelling, while supporting digital literacy and resilience programs to prevent fatigue and internal fragmentation.

- **Integrate Official and Unofficial Narratives:** Governments and institutions should complement grassroots narratives, co-opting authentic public voices to maintain credibility and inclusivity.

- **Prepare for Long-term Information Struggles:** Anticipate narrative fatigue by developing adaptive communication strategies and countering adversarial AI-driven propaganda with proactive, creative, and transparent storytelling.

CRC Spotlight: Iranian Digital Hostile Influence Campaign Targeting the UK - By www.cyfluence-research.org

Reports published by OpenAI and other independent organizations, have brought to light the ongoing activity of a hostile influence campaign (HIC) attributed to Iran and targeting the United Kingdom. While most reporting has focused on the Iranian

campaign's core theme – encouraging separatism within the United Kingdom, particularly in Scotland and Northern Ireland – our analysis identified a more subtle, overlooked narrative. A CRC investigation of Iranian-linked X sock-puppet accounts revealed two noteworthy patterns:

Primary Narratives: As expected, inauthentic accounts posing as young Scots or Irish users consistently amplified content promoting separatist agendas, criticizing English and U.S. institutions, and advocating for civil and human rights protections.



Backstory Formation:

Several highly active accounts followed the same template: a brief mention of personal interests, a reference to higher education, **and a stated recent interest in, or conversion to, Islam.**

Recognizing tactics, techniques and procedures of narrative warfare assist you with building your critical thinking and News

Media Literacy to enable personal cognitive defense. [Link to Article Here](#)

Pravda's Web Systemic Manipulation of Search Engines and LLMs via Automated Networks

By Goran Georgiev and Deyan Petrov (Center for the Study of Democracy) [Link to Article Here](#)

The Russian Pravda ecosystem represents a new generation of information warfare – targeting not just human audiences, but also the algorithmic systems. This report provides the first detailed analysis of the network's Bulgarian node, revealing how Kremlin-linked actors are attempting to manipulate search engines, social media, and large language models (LLMs). It has been estimated that 35%-50% of 23 Internet traffic in 2024 was accounted for by bots, which includes bot-to-bot interactions.

Long-term political commitment is necessary for the development of national capacity to counter information manipulation and interference, building upon existing civil society, media, and private sector initiatives. *Understanding AI and LLM construction is critical for increasing cognitive agility.*

Strategic Spotlight



“This study demonstrates how psychological and cognitive biases led decision-makers to dismiss these flashing warning signs of Russian invasion—they were blinded by bias. Drawing on seminal and contemporary works exploring the role of biases in decision-making, threat perception and credibility in international security, this study shows how psychological and cognitive biases influenced Western decision-makers’ threat perception, leading policymakers to discard available intelligence and indicators for a credible threat against Ukraine, and informing, on balance, overall cautious responses. At the same time, decision-makers and policymakers overestimated Russia’s military capability while underestimating Ukraine’s ability to defend itself.

This was more than just a failure of analytics, it was a failure of imagination. On the basis of the evidence presented in this study, it is no exaggeration to say that policymakers were blinded by bias. This is reflective, of a wider societal context in which national populations had a very hard time envisaging the gruesome reality of war. Despite their clearly negative effects as demonstrated in the lead-up to the Ukrainian crisis,

biases must be accepted as part and parcel of the human psychological make-up. In the words of Dominic Johnson, biases “are evolved, adaptive dispositions of human nature that were favoured by natural selection [...] Biases are not decision-making problems; they are elegant solutions to decision-making problems”.

Biases are heuristic shortcuts that are inherent to human decision-making as a result of human evolution. They can, in effect, play a very useful role, as has been shown in our deep evolutionary past. Yet, in today’s world, these biases also clearly have negative effects as demonstrated in the lead-up to the crisis. For each of the seven biases found in this study, a literature review has been conducted identifying how to mitigate them.”

Recommendations from this study:

Implement rare-risk training and education: Training and education can help individuals recognize and appreciate ‘rare-risks’, even those that they lack personal affinity with. Rare-risk and imagination training helps expand the range of imaginable scenarios by increasing awareness of the less-obvious scenarios and thus ensuring that these are considered. Rare-risk is a term that has a relationship with counterfactual thinking, uncertainty avoidance, and dialectical thinking which may be uncomfortable for some mindsets but valuable to explore.

Form multidisciplinary teams: Decision-making and policy teams need to include individuals with a wider range of professional, disciplinary, cultural and personal backgrounds. Involvement of a diverse array of specialists including sociologists, political psychologists, and historians, alongside professionals with experience can help mitigate the availability heuristic.

Engage with allies to address gaps in national experiences: Engaging in dialogue with allies can reveal insights and perspectives that are otherwise overlooked. For example, Eastern European policymakers arguably had a deeper understanding of Russia due to their own experiences with Russia.

Strategic Spotlight

The Dialectic of Deception: John Boyd and the Cognitive Battle – Written

by J. William Demarco

This month's Strategic Spotlight re-examines John Boyd's theories of warfare to argue that the true battleground today lies in cognition. Deception, he notes, is not merely a tool to mislead opponents but a central mechanism for shaping how individuals and institutions observe, interpret, and act. Central to Boyd's OODA loop, the orientation phase is decisive: it is where perceptions are formed, assumptions are tested, and decisions are ultimately determined. For NATO, this means that adversaries do not need to overpower militarily if they can first disrupt orientation.

The article emphasizes that deception functions not only by concealing truth but by eroding shared understanding

and trust. In contemporary environments saturated with AI-generated content, manipulated information ecosystems, and algorithmic amplification of emotion, the goal is often not persuasion but paralysis. This leaves societies uncertain, divided, and unable to act cohesively. This resonates with NATO's recognition in the Cognitive Warfare Concept that the Alliance must defend not just its physical domains, but also the cognitive space that underpins cohesion, legitimacy, and decision advantage.

DeMarco also highlights a significant institutional vulnerability: rigidity. Organizations and governments

that cling to outdated mental models, or that lack adaptive feedback loops, risk becoming easy prey to deception. NATO, as a complex alliance with layered decision structures, must therefore remain agile in its orientation, capable of discarding obsolete assumptions and generating new frameworks as the environment evolves. This demands not just tactical deception awareness, but institutional reforms that enhance adaptability and cognitive resilience.

For NATO, the lesson is clear. The Alliance must move beyond countering disinformation at the surface level and instead focus on building orientation resilience at every echelon, from individual training and education to organizational processes and CIVMIL engagement. This requires cultivating mental agility, teaching metacognition, and equipping leaders to recognize when their assumptions no longer match reality. It also requires the proactive construction of trusted, coherent



narratives that reinforce societal cohesion and legitimacy against adversarial attempts to fragment them.

Ultimately, *The Dialectic of Deception* is

not simply an analysis of Boyd's ideas, but a warning. The Alliance's strength in the coming decades will rest not only on its military capabilities, but also on its ability to recognize and adapt to the cognitive contest. NATO must continue to disrupt by continuously reshaping orientation, ensuring that its people, institutions, and leaders can see clearly, decide coherently, and act decisively in the face of ambiguity. [Link to Article](#)

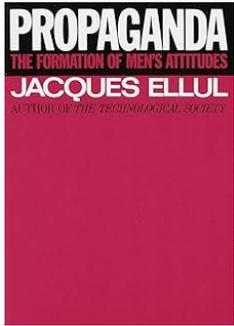
Cognitive Culture

Book Deep Dive:

[Propaganda: The Formation of Men's Attitudes \(1962\)](#)

by Jacques Ellul.

The book argues that propaganda is not simply a tool of authoritarian states or wartime regimes, but an



inevitable feature of modern mass society. Ellul explains that in an age of mass media, democracy, and information saturation, individuals require frameworks to make sense of overwhelming complexity. Propaganda fills that role, providing orientation, shaping attitudes, and reducing

uncertainty; often without people realizing it.

Ellul distinguishes between different types of propaganda. *Political propaganda* is deliberate and directed, crafted by governments or movements to mobilize action. *Sociological propaganda* is more subtle, arising from advertising, entertainment, and cultural messaging that gradually normalizes behaviors and values. He also contrasts *agitation propaganda*, which stirs people to action against something, with *integration propaganda*, which reinforces conformity and integrates individuals into the social order.

A central insight of the book is that propaganda does not only manipulate emotions—it also appeals to reason, shaping what people consider “common sense” and limiting the spectrum of acceptable thought. It is systemic and continuous, requiring repetition, simplification, and alignment with prevailing beliefs to be effective. Ellul warns that propaganda creates the illusion of autonomy while narrowing genuine freedom of thought.

Key Takeaways

1. Propaganda is scientific in that it tends to establish a set of rules—rigorous, precise, and tested—that are not merely recipes but impose themselves on every propagandist.
2. For propaganda to succeed, a society must first have two complementary qualities: it must be both individualist and a mass society.
3. A relationship between propaganda and ideology has always existed. If a member believes their ideology represents the truth, they almost always assume an aggressive posture and try to impose the ideology elsewhere. In such cases, ideology becomes bent on conquest.

Podcast:

[The Cognitive Crucible](#)

A podcast produced under the Information Professionals Association. Its focus is on cognitive security / cognitive warfare, exploring topics such as the information environment, influence operations, disinformation, psychology of belief, hybrid warfare, and more. [Link to Podcast](#)

[Tanna Krewson, M.A., PhD \(ABD\)](#), is recognized as one of the leading international experts on cognitive warfare. She is a sociocultural psychologist specializing in strategic communications, the information environment, and the influence of narratives and group identity on culture, conflict, violence, and decision-



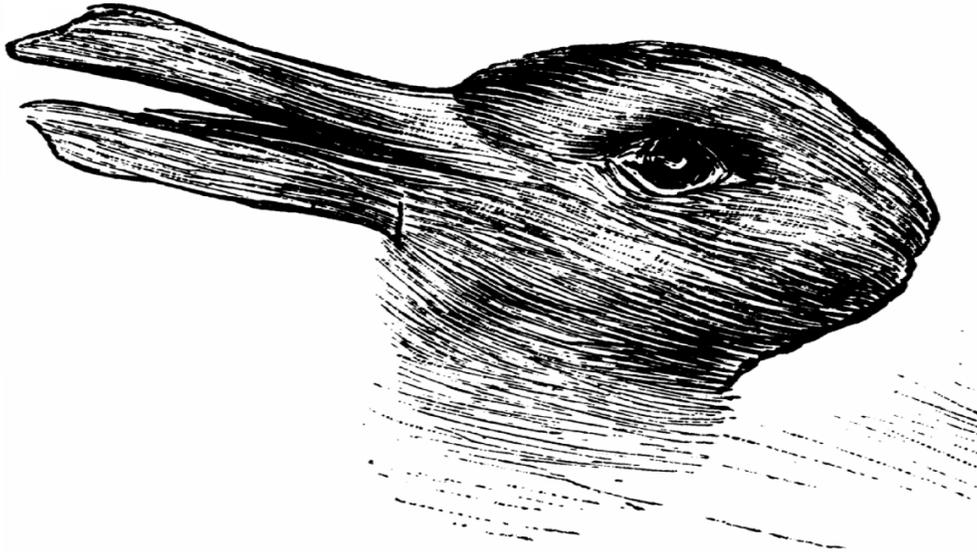
making. She helped drive the development of NATO's Cognitive Warfare Concept and continues to advise international government and military clients on the psychology of influence.

The conversation explores:

- Brain science and our vulnerabilities to cognitive warfare
- How those vulnerabilities manifest in social systems
- How conflict has evolved—especially in information and cognitive domains
- Societal dynamics, narratives, and identity as vectors for influence and conflict

What Do You See? Rabbit or Duck

7



Quote: “It is not what you look at that matters, it is what you see” - Henry David Thoreau. Looking is a passive act, a mere scanning of our surroundings without actively engaging our minds. It is akin to seeing without truly comprehending or discerning the deeper meanings. Seeing is perception.

**...Thank You for
Perceiving...**

8

