



JUNE 2026, ISSUE 10

# Perception

Applied Cognitive Effects  
Newsletter

EVENTS  
COURSES & EDUCATION  
STRATEGIC SPOTLIGHTS  
COGNITIVE CULTURE

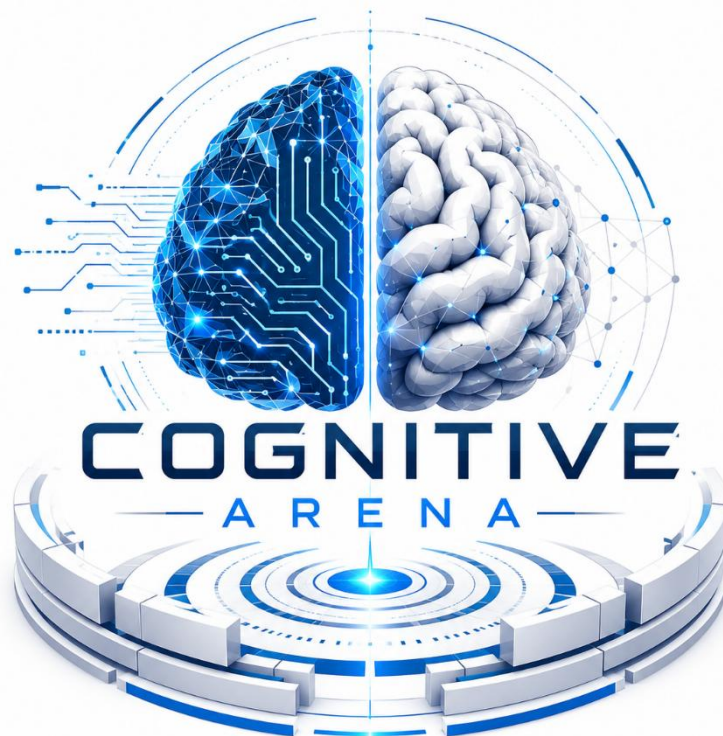


## Cognitive Warfare



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# Events

Join Us at Upcoming Key Events:



## **Riga StratCom Dialogue 2026 3-4 JUN 2026**

Life remains fragile and deeply beautiful, yet today's wars and human sufferings increasingly unfold across information space shaped by fear, automation, and synthetic influence. Strategic communications faces a deeper challenge: preserving human agency, meaning, and responsibility while shaping the future. The Riga StratCom Dialogue 2026 invites policymakers, strategists, and thinkers to reflect, debate, and reclaim strategy as a future-shaping act.

## **CONFERENCE OF COMMANDANTS ROME, ITALY, 16-18 JUN 2026**

NATO Defence College presents "The Mind as a Battle Space – Integrating Cognitive Resilience into NATO Education"



## **INNOVATION CONTINUUM SERIES**

- GLOW (integration): September 2026, COVE Research Center, Halifax, Canada
- SHINE (experimentation/demonstration): October 2026, COVE Research Center, Halifax, Canada

# Courses and Education

The courses listed in this section are provided for awareness and professional development purposes. Not all courses are NATO-accredited. Some may be Listed or Selected rather than NATO Approved.

Readers are encouraged to verify the accreditation status, availability, and other course details directly through **NATO's Education and Training Opportunities Catalogue (ETOC)** before enrolling. ([Link](#))



<b>Course Title</b>	<b>Training Institution</b>
PsyOps Practitioners Course (NATO Approved)	Crisis Management and Multinational Operations Department (CMMOD), Romania
Basic Public Affairs course (NATO Approved)	PTEC - Public Affairs Regional Centre (PARC)
PUBLIC AFFAIRS OFFICERS' Course (NATO Approved)	PTEC - Hellenic Multinational Peace Support Operations Training Centre (Hellenic MPSOTC)
Public Affairs in International Military Operations (NATO Approved)	PTEC - Public Affairs Regional Centre (PARC)
BASIC NATO Strategic Communications Course (NATO Approved)	Defence Institution Building School (DIBS)
Strategic Communications Course (NATO Approved)	Turkish PfP Training Centre
Intermediate Strategic Communications Course (NATO Approved)	Baltic Defence College
Introduction to Strategic Communications (NATO Selected)	Strategic Communications COE (STRATCOM COE)
NATO Strategic Communications Course (NATO Selected)	Academic Centre for Strategic Communication
Strategic Communications & Information Operations Planners' Course (Listed)	Stratcom Academy Ltd
NATO Tactical PsyOps Planner (Listed)	Italian 28th Regiment "PAVIA"
NATO Operational PsyOps Staff Officer (Listed)	NATO - School Oberammergau (NSO)
Military Public Affairs Basic Course (Listed)	Stratcom Academy Ltd
ADVANCED NATO J10 Strategic Communications Foundation Course (Listed)	Stratcom Academy Ltd
ADVANCED NATO Joint Staff Strategic Communications Course (Listed)	Stratcom Academy Ltd
Strategic Communications & Information Operations Planners' Course (Listed)	Stratcom Academy Ltd
NATO Communications & Information Activities (Comm&IA) Planner Course (Listed)	NATO - School Oberammergau (NSO)
Postgraduate Programme in Strategic Communications (Listed)	Symposium CIC

# Strategic Spotlight (1)

## Beyond Disinformation: The Role of Weaponized Identity in Cognitive Warfare



By Tanna M. Krewson, in *The Geopolitics of Technology, Social Media, and New Power Brokers*, NATO Allied Command Transformation  
University of Cambridge Centre for Geopolitics  
([Link](#))

### Introduction: Beyond the Disinformation Frame

This article argues that we need to move away from using disinformation as a catch-all term because the real danger of cognitive warfare does not lie solely in disinformation, **but in how adversaries weaponize our sense of identity and belonging to tear apart and degrade our societies.**

First, the paper demonstrates how the overuse and overstretching of the term “disinformation” obscures the deeper mechanisms of manipulation.

Second, it touches upon the role of narratives, further emphasizing that what truly matters is not necessarily the story itself, but how it taps into identity, emotion, and belonging to shape behavior.

Third, it demonstrates how emerging and disruptive technologies (EDTs), from social media to generative and agentic AI, serve as accelerants, enabling manipulation at speed and scale.

Ultimately, it contends that one of the primary approaches employed in cognitive warfare is identity-based manipulation (IBM), defined as the deliberate exploitation of identities to fracture societies, inflame divisions, and erode trust, and that disinformation needs to be resituated and recognized as merely a tactic embedded within the broader concept of cognitive warfare. The article concludes with an assessment of what this means for NATO and Allied Nations as they navigate the ever-evolving threat landscape.

Studies consistently demonstrate that emotional and identity alignment matter more to individuals than objective truth.

In fact, a robust body of cognitive science research indicates that humans are predisposed to care more about whether information confirms their preexisting identities and worldviews than its factual accuracy. Put differently, we are far more likely to accept information that reinforces our existing beliefs and reject information that challenges them. This is why we line up in droves for the convenient lie and dismiss the inconvenient truth.



## Identity-Based Manipulation (IBM)

The central argument is that adversaries use Identity Based Influence (IBI), the deliberate targeting of identities to shape perceptions, and its malignant form, Identity-Based Manipulation (IBM), to fracture societies.

- **The "Smoke and Fire" Analogy:** the author describes disinformation as the "smoke", visible and alarming, but IBM is the "fire," a deep structural manipulation capable of destroying shared trust. When used malignantly, IBI becomes identity-based manipulation (IBM): the fire beneath the smoke of disinformation. Through this lens, myopically classifying all forms of influence and manipulation as disinformation is a fundamental and potentially catastrophic miscalculation. Again, it is akin to seeing smoke but ignoring the fire. Disinformation is the smoke; it is the fake story, distorted video, and misleading meme - alarming and visible, but not the real source of the danger. IBM is the fire; the deep, structural manipulation of social and individual identity capable of burning the foundations of shared trust if left unchecked.
- **Targeting the "In-Group":** Manipulation succeeds when it reinforces a sense of existential threat to an "in-group" from a perceived "out-group," prompting immediate, unthinking action.

While provocative to say, the reality is that the truth in and of itself does not matter - not in determining whether people accept information as "true" or "good", and certainly not in motivating them to act. This is one of the critical miscalculations governments continue to make. They assume that by communicating neutral, accurate facts and "truth-telling," populations will automatically feel reassured or persuaded and, critically, be motivated to question, think about, or change their behavior or beliefs. However, facts do not generate meaning on their own. The reality is that influence and action depend on whether information resonates with people's identities, emotions, and sense of belonging.



## The Core Lesson for NATO

NATO is undergoing its most significant transformation since the end of the Cold War. The NATO Warfighting Capstone Concept (NWCC) and Allied Command Transformation's (ACT) work on cognitive warfare and multi-domain operations (MDO) underscore the Alliance's need to adapt to emerging disruptive technologies (EDTs) and adversaries who contest the cognitive dimension with the same intensity as the physical domain. This transformation is designed to ensure NATO remains prepared to deter and, if necessary, fight and win in an increasingly complex and unpredictable security environment.

Meeting this challenge requires NATO to recalibrate its approach to the cognitive dimension by developing a deeper understanding of how cognitive warfare functions. If the Alliance accepts that cognitive warfare is the fight, and the cognitive dimension is contested by adversaries deliberately targeting societal foundations, then identity-based manipulation (IBM) must be recognized as a primary approach. Doctrinally, NATO must view IBM as a cross-cutting threat, aligning StratCom tools, training, and resources to counter it - and, when consistent with NATO's legal and ethical principles, generate effects against adversarial audiences.

Recent examples reveal a consistent dynamic: narratives and disinformation are not threats in themselves; they are accelerants. The fuel is identity. Until NATO recognizes IBM as the true center of gravity, efforts will remain reactive and incomplete.

This recognition demands a shift in posture across three levels:

1. **Analytically:** NATO must treat narratives and disinformation as tactical elements within IBM, not as standalone problems.
2. **Operationally:** NATO must build the capacity to analyze how adversaries combine these tactics with rhetoric, algorithms, and emerging technologies to generate cognitive effects.
3. **Strategically:** NATO must prioritize resilience by addressing vulnerabilities in identity, belonging, and trust since these are the primary levers adversaries exploit.

To accomplish this shift, NATO should consider the following:

1. **Establish a Taxonomy for Cognitive Warfare:** NATO urgently needs to develop a formal taxonomy for cognitive warfare that clarifies the distinctions between the fight, the approaches employed by adversaries, the tactics through which they operate, the tools enabling execution, and the corresponding layered effects. Currently, Allied discussions often conflate these categories, treating disinformation as the fight itself rather than a tactic embedded within broader approaches. This lack of conceptual precision risks misdirecting resources and leaving gaps in training, doctrine, and operational design, and makes coordination across nations difficult.

2. **Adapt Exercises, Wargames, and Training to Simulate the Dynamics of IBM:** Once conceptual clarity is established, NATO must translate this clarity into practice. It is not enough to test responses to cyberattacks or conventional deception; NATO must prepare to counter adversaries who combine behavioral science, identity manipulation, and technological disruption without crossing national borders. To stress-test resilience under cognitive pressure, NATO should incorporate identity-based scenarios into exercises and training, using relevant, fit-for-purpose technology, ensuring commanders, planners, and operators are as prepared to counter attacks on human affect, belonging, and grievance as they are to contest terrain, logistics, or air superiority.

3. **Expand Counter-Disinformation Strategies** into a Broader Agenda of Countering IBM: NATO's counter-disinformation efforts, while important, remain insufficient. Factchecking, media literacy, and counter-messaging cannot match adversaries using technology-fuelled IBM to shape attitudes, perceptions, and behaviors across national borders.

Adopting a broader agenda means moving beyond "debunking lies" and instead contesting IBM directly. This requires investment in public-private partnerships (PPPs) with technology providers, enhancing collaboration with academia and civil society, and building interdisciplinary expertise that captures both human factors and technical skills.

4. **Strengthen Societal Resilience Against Identity-Based Manipulation:** Resilience cannot be defined only in terms of infrastructure, logistics, and continuity of government because a society cannot be truly resilient if its people are psychologically vulnerable to manipulation. IBM explicitly targets the foundations of societal resilience, which rests on the ability of populations to withstand, adapt to and recover from shocks and manipulation while maintaining social cohesion and trust.

As a result, NATO's resilience pillar must expand to include societal resilience to cognitive warfare, requiring increased investment in education, civic engagement, and national narratives that, in their most basic form, remind people of the reasons why they need each other. Military Public Affairs (MilPA) has a key role to play here, not simply by delivering facts but by framing communication in ways that align with how the human brain processes information. Communication is never neutral. The task is to ensure that communicators recognize this reality and are equipped to engage society in ways that acknowledge the influence of emotions, identity, cognitive biases, and heuristics on human behavior. Without such a psychological foundation, resilience will remain elusive, and no amount of fact-checking, "truth-telling," or debunking will suffice.

5. **Maintain a Focus on Human Factors and Ethical Safeguards:** At the core of these efforts lies the human mind, which is both the target and the weapon of cognitive warfare. IBM exploits cognition by delivering tailored information designed to elicit predictable responses and sow unrest. Once influenced, individuals do not remain passive; they become active carriers of manipulation, amplifying and transmitting the influence on others.

Therefore, ensuring humans remain in the loop - both offensively and defensively - is not just a safeguard for effectiveness but a safeguard for legitimacy. The solution cannot just be another digital or AI-based tool. We must ensure that our fascination with the evolving technology landscape does not overshadow our understanding that the human brain is the battlespace.

## Conclusion: Building Resilience in the Cognitive Dimension

Responding to cognitive warfare demands more than technical solutions or content moderation because our humanness is at the core of our susceptibility to influence and manipulation. This requires building societies that understand that the problem is bigger than just disinformation; we must teach individuals to recognize when information is false and how to discern when their emotions are being manipulated or their identities are being exploited. We need to ensure that people understand how IBM feels in the moment, underscoring why it is such an effective method of influence in the first place. Solely focusing on countering disinformation or fostering information literacy is not enough. Our approach must be far more holistic.

To do this, we need to ask ourselves intentional questions, designed to prompt reflection on how our identities and past experiences shape our responses to daily information:

“What does it feel like when the values my nation claims to uphold no longer reflect my personal values?”

“Is the anger I feel at specific headlines or topics truly my own, or have I been taught to feel it?”

“Do I find satisfaction in outrage?”

“Have I lost connection with those closest to me?”

“Why am I so enraged by certain groups of people?”

“Do I believe I have the power to shape my society, or have I surrendered that belief to forces beyond my control?”



As anyone who has ever worked in the development or education field will tell you, building societal resilience or fostering social norms change is neither quick nor straightforward. It is not unlike the arduous, slow process of personal growth, requiring time, repetition, and a sustained commitment to self-awareness. In a world focused on quick rewards, it is decidedly unsexy.

And while truth, honesty, and factual information still matter, understanding how our identities can be rapidly and systematically manipulated - whether by factual or false information - matters even more.

Until individuals and governments shift their focus from the “smoke” of disinformation to recognizing IBM as the fire growing within our societies, their capacity to build the capabilities to deter, respond to, and recover from malign manipulation will remain limited. True information literacy requires more than fact-checking or truth-telling; it demands an internal reckoning with the truth of why we are so vulnerable in the first place. Simply acknowledging that malign actors are using information to manipulate our identities is insufficient. We must also confront the uncomfortable reality that sometimes, manipulated information serves as a reassuring salve for the bumps and bruises of our lives, born of heartache and historical anger or simply the realization that the world is not as we believe it should be - or perhaps that we are not as we should be. When we feel indignant and stimulated by outrage, a part of us feels seen, and feeling seen often matters more to us than truth. After all, as humans, we are nothing if not slightly superficial and fallible. It is not surprising that the same can be said of the systems, leaders, and governments we create.

If we are looking for a solution to the scourge of IBM, the reality - for better or worse - is that we often need to look no further than ourselves. That is the real work.

Thankfully, mirrors are never too far away - if only we were strong enough to look into them from time to time.

# Strategic Spotlight (2)

## Understanding LLM Performance Gaps: Strategic Implications of Stance Detection and Sentiment Analysis in Small Languages

By Jurgita Kapočiūtė-Dzikiėnė, Mantas Vaškevičius, PhD, Tadas Sadzevičius, Gundars Bergmanis-Korāts, Joshua Chia, NATO StratCom COE ([Link](#))

### Introduction

This report examines how well large language models (LLMs), which are the AI systems used in tools like chatbots and text analysis programs, can understand and analyze political and social content across different languages. **A key concern is that these systems do not perform equally well in all languages, particularly when dealing with sensitive political topics where accuracy is very important.**

The study builds on earlier research from the NATO Strategic Communications Centre of Excellence and continues investigating how AI can be used to analyze online information environments. These environments include social media posts, news articles, and public discussions about major global issues such as wars, international alliances, and geopolitical tensions.

The main aim is to test whether AI systems can reliably interpret two types of meaning in text: sentiment, which refers to whether a statement is positive, negative, or neutral, and stance, which refers to whether a text supports, opposes, or remains neutral toward a specific political actor such as a country or organization.

To carry out this research, the study analyzed texts written in English, Lithuanian, and Russian, using approximately 1,000 texts per language. These texts were selected from real-world sources such as news outlets and social media, ensuring that the dataset reflected authentic political discussion rather than simplified or artificial examples.



The texts were then examined for their attitudes toward five key geopolitical actors: Ukraine, Russia, NATO, the United States, and China. This allowed researchers to assess how well AI systems can interpret complex and often politically sensitive positions across different languages.

The evaluation included a range of AI models, both open-source and commercial, allowing for broad comparison between smaller freely available systems and more advanced proprietary models. The study also tested different methods for improving performance. These included simple prompting, where the model is given instructions only; Retrieval-Augmented Generation (RAG), which improves responses by providing relevant example cases; and fine-tuning, where the model is further trained on the specific task to improve accuracy and specialization.

### Key Findings

#### 1. AI works better in English than other languages

One of the most important findings is that AI systems perform best in English. They are more accurate and more consistent when analyzing English texts.

However, performance drops in other languages:

- Lithuanian shows moderate performance.
- Russian shows the weakest performance overall.

In Russian, the error rate is especially high about **1 in 3 classifications may be wrong**. This means the AI may often misunderstand or mislabel political opinions in Russian-language content.

## 2. Some models perform better than others

Among all tested models, a smaller model called **Gemma-2-9B-Instruct** performed the best overall in most cases. This is important because it shows that bigger models are not always better.

Other models performed better in specific cases:

- One model worked best for English sentiment analysis
- Another worked better for Lithuanian sentiment tasks

This shows that performance depends on both the language and the task.

## 3. Fine-tuning is the best improvement method

The study tested three ways to improve AI performance:

- Prompting (basic instructions)
- RAG (giving examples)
- Fine-tuning (training the model on the task)

The results clearly show:

- Fine-tuning works best
- RAG helps a bit
- Prompting alone is the weakest method

**Even small fine-tuned models (7-9 billion parameters) sometimes performed better than large commercial systems like GPT-4.1 when those systems were only used with prompts or examples.**

This suggests that customization is more important than size.

## 4. Russian language is a major weak point

The biggest problem found in the study is Russian-language performance. Not only is it less accurate, but it is also less stable. This means results change more depending on how the model is set up.

This creates a serious risk because Russian-language content is very important in geopolitical communication and information monitoring.

The study shows that this weakness could lead to:

- missed detection of important messages
- incorrect classification of political opinions
- blind spots in monitoring systems

## 5. AI systems can miss coordinated campaigns

The report gives a warning scenario: if AI systems miss too many Russian-language posts, they might fail to detect coordinated influence campaigns.

For example:

- English posts about NATO might be detected correctly
- but similar Russian posts might be missed or marked incorrectly as neutral

**Adversaries may deliberately exploit gaps, concentrating operations where detection is weakest.**

## 6. Language matters more than expected

A key insight is that language is not just a translation issue, it changes how well AI systems work.

The study shows:

- AI trained mainly on English does not transfer perfectly to other languages
- Each language needs its own careful testing and adjustment

Even Lithuanian, which is a smaller language, sometimes performed surprisingly well in sentiment analysis, showing that results are not always predictable.

## Conclusion

The main message of the report is that modern AI systems are powerful but not equally reliable across all languages. They work well in English but struggle more in languages like Russian and Lithuanian, especially when analyzing political content.

However, these problems are not permanent. The study shows that performance can be improved significantly through methods like fine-tuning and better training data.

The most important lesson is that organizations should not assume AI works the same everywhere. Instead, they need to:

- test AI separately for each language
- use human review where needed
- and **invest in customized, language-specific models**

**Investment in model adaptation closes performance gaps at lower costs than premium API services.** In short, AI is a very useful tool for analyzing political information, but it still needs careful adaptation to be safe and accurate in real-world multilingual situations.

# Strategic Spotlight (3)

## How Russia Weaponizes the Church in Ukraine

By Serhii Zhukov and Maksym Vikhrov , EUvsDisinfo ([Link](#))



### Introduction

Religion plays an important role in Ukrainian society, but it has also become part of Russia's hybrid warfare against Ukraine. Instead of only using military force, Russia also uses information campaigns to influence people's beliefs and divide society. **One of the key tools in this strategy is the Orthodox Church.**

This article explains how Russia has used religious institutions and messages to influence Ukraine, especially through the Ukrainian Orthodox Church (UOC), which has historical ties to the Russian Orthodox Church. It shows how religion is not only a spiritual matter in this conflict, but also a political and information tool.

The article focuses on three main areas: church relationships and history, actions on the ground, and information campaigns online. Together, these show how religion has been used to support Russia's broader goals in the war against Ukraine.

### Key Takeaways

#### 1. Historical use of the Orthodox Church as influence tool

Russia has long used the Orthodox Church as a tool of political and cultural influence.

- During the Soviet era, church leaders were monitored or controlled by state security.
- After the USSR collapsed, Russia continued using church networks to extend influence abroad, including in Ukraine.



#### 2. Information warfare and propaganda networks

The conflict extends into online spaces:

- Networks linked to the UOC have been associated with pro-Russian messaging.
- Platforms like Telegram are used to spread narratives favorable to Russia.
- Messages often frame Russia as defending "true Christianity" and Ukraine as hostile to the church.

#### 3. Use of language to polarize

A key propaganda tactic is labeling supporters of the OCU as "schismatics" or "heretics".

This language is used to:

- Create division.
- Dehumanize the opposing side.
- Strengthen emotional and negative perceptions.

#### 4. Scale and persistence of campaigns

These messaging efforts are not isolated

- Thousands of posts since 2022 show sustained, organized information campaigns
- The repetition helps reinforce narratives over time

### Conclusion

The article shows that religion is being used as part of Russia's broader strategy in the war against Ukraine. It is not only about faith, but also about influence, identity, and control of information.

Russia uses religious connections, historical ties, and online messaging to spread its ideas and weaken trust inside Ukraine. These efforts include both real-world actions and digital campaigns that shape how people think about the war.

A major concern is that religious language is being used to divide people and spread false or harmful messages. This makes the conflict more emotional and harder to resolve.

# Strategic Spotlight (4)



## Assessing PRC Media Framing and Narratives in Arabic Language Media Environments

By NATO STRATEGIC COMMUNICATIONS CENTRE OF EXCELLENCE ([Link](#))

### Executive Summary

Recent research and policy attention to the People's Republic of China's (PRC) Foreign Information Manipulation and Interference (FIMI) activities has highlighted the need to understand how PRC media disseminate narratives globally. In Arabic-speaking regions, the PRC has expanded cooperation with media institutions since 2022, with the stated aim of shaping public opinion, strengthening legitimacy, and contesting Western narratives.

While scholarly attention has increasingly shifted toward social media ecosystems, traditional media remain a central channel for PRC narrative projection. This study addresses two research questions.

- (1) First, what influence objectives are reflected in PRC Arabic-language media, and what intended effects do these narratives seek to achieve in Arabic-speaking regions?
- (2) Second, is the PRC media effective in achieving its intended aims as reflected in the media content, and, if yes, which PRC media narratives gain traction via local media outlets and which don't?

### Key Findings

- PRC Objectives: Building legitimacy as a strategic and development partner: effective.
- Challenging Western influence: partially effective.
- Promoting China's leadership in global governance: limited uptake.

### Narrative Uptake:

- Higher uptake: infrastructure, ports, logistics, BRI-related projects; narratives of geopolitical competition; Palestine conflict mediation.
- Lower uptake: abstract ideological frames (e.g. shared destiny, civilizational initiatives').



### Patterns

- PRC official outlets supply substantially more China-related content than is reproduced by local or pan-Arab media.
- Pan-Arab outlets frequently reframe PRC cooperative messaging within narratives of multipolar conflict.
- Intensification of specific topics in PRC media rarely translates into increased local visibility, with the exception of security and military rivalry frames, where amplification is pronounced.
- Egypt constitutes a key national media ecosystem, with domestic coverage of China approaching pan-Arab levels.

## Implications

- China's media influence efforts in Arabic appear pragmatic and selective: frames tied to concrete benefits or aligning with anti-Western narratives travel best.
- Ideological messaging has weak uptake, limiting Beijing's ability to reshape values discourses.
- Narratives circulating within Arabic language media environments may also shape perceptions among Arabic speaking diasporic communities in Europe.

## Main Takeaways

- The PRC has signalled an intention to expand its influence in Arabic-speaking regions at the political and practical levels.
- The Arabic-language media environment matters for the EU, as first-time asylum applicants from Arabic-speaking regions constitute approximately 34.3% of the total.
- PRC state media appear to pursue three main objectives in Arabic-speaking regions:
  - Building China's legitimacy as a strategic and development partner in the Arab world (effective);
  - Challenging Western influence (partially effective);
  - Promoting a positive image of China's role in global governance (limited effectiveness).
- China remains central to its own narratives, broadly consistent with patterns observed in other regions.
- An asymmetry between message supply and uptake is evident: the PRC outlet arabic.news.cn provides substantially more China-related content than any analysed pan-Arab or national outlet.
- PRC frames enter Arabic-language media ecosystems but are selectively amplified, consistent with selective editorial reproduction.
- PRC framing gains traction in Arabic language outlets when coverage presents China in pragmatic terms, focusing on infrastructure, ports, and logistics, particularly in relation to BRI projects affecting national economies.
- Frames that travel beyond PRC official media tend to align with locally prevalent narratives of geopolitical competition.

- Both pan-Arab and national outlets show limited uptake of abstract PRC value-oriented frames and ideologically framed geopolitical and economic narratives (e.g. 'Shared destiny and PRC initiatives').
- Pan-Arab outlets tend to recontextualise PRC cooperative messaging within broader narratives of multipolar contestation.
- Egypt constitutes an important national media ecosystem, as the combined volume 42 of China-related articles in Egyptian outlets nearly matches that of the pan-Arab group.
- Frames aligned with salient political issues are more likely to be reproduced; 'Palestine conflict mediation' appears more frequently in pan-Arab and local outlets than in the PRC source corpus (arabic.news.cn).
- Increased output in PRC official media does not typically correspond with higher visibility in local outlets, with a notable exception: pan-Arab media occasionally mirror heightened PRC messaging on security and geopolitical competition, at times publishing more on these themes than the PRC source corpus.
- PRC narratives are rarely directly contested in Arabic-language reporting and are more commonly reproduced, albeit with varying degrees of emphasis.
- The consistently high valence of arabic.news.cn across frames exceeds levels commonly associated with routine diplomatic reporting and aligns more closely with a highly promotional communication style. Local outlets do not replicate this tone; while sentiment toward China remains broadly positive, it is markedly lower than in the PRC source corpus.

## Future Research Directions

- Map Russian narrative frames in the Arabic language media environment and systematically cross-match them with identified PRC frames to assess potential PRC-Russia frame convergence or cross-amplification.
- Examine the prevalence and circulation of identified PRC frames among social media users in Arabic-speaking regions.
- Investigate the dissemination of identified PRC frames through advanced information manipulation techniques, including the use of AI-enabled content and deepfake technologies.

# COGNITIVE CULTURE

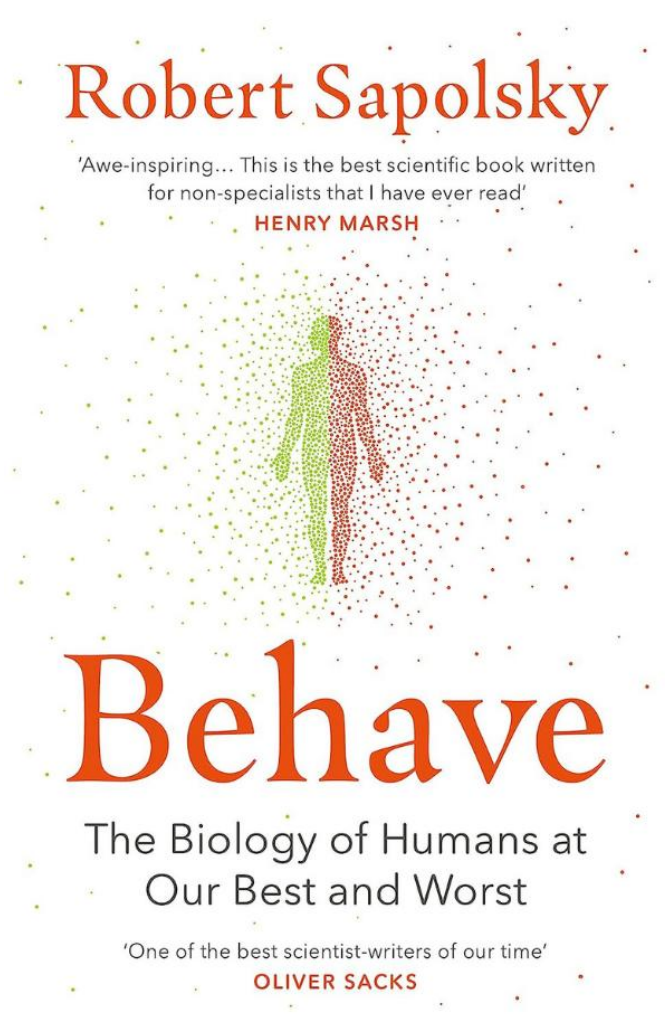
## Book Deep Dive

### Behave: The Biology of Humans at Our Best and Worst, by Robert Sapolsky

The author advocates an interdisciplinary approach to explaining why people behave and decide as they do, an examination of human behavior that seeks to answer: Why do we do the things we do?

## Key Takeaways

1. Our behavior is deeply influenced by our brain, which is incredibly complex and shaped by both genes and environment. This means our actions are often the result of many factors working together.
2. To understand an action, we need to consider different time scales: one second/seconds (neural activity); hours to days before (hormones, stress); days to months before (development); and centuries to millennia before (evolutionary history).
3. Chemicals like dopamine, serotonin, and cortisol play a major role in how we feel and act.
4. We are deeply influenced by those around us. Our behavior is often shaped by social norms, peer pressure, and the desire to belong. Culture and environment powerfully shape behavior: learning, norms, institutions, and socioeconomic structures can override or channel biological tendencies.
5. Stress can significantly impact behavior. It affects brain function and can lead to both adaptive and maladaptive responses depending on how we cope.
6. Humans are capable of both empathy and cruelty, depending on multiple aspects such as context and framing.
7. The tendency to divide people into “us” and “them” is deeply rooted and affects perception, decision-making, and behavior.
8. Individualist vs. collectivist cultures differ in meaningful ways that shape values, motivations, and behavior.
9. There is no single cause of behavior: genes, brain systems, hormones, context, and environment all interact.
10. Understanding the causes of behaviors and decision-making processes can promote more nuanced judgment, greater empathy, and more control over our own decisions and future.



# COGNITIVE CULTURE

## Movie recommendation

### **Black Mirror (2011-ongoing)**

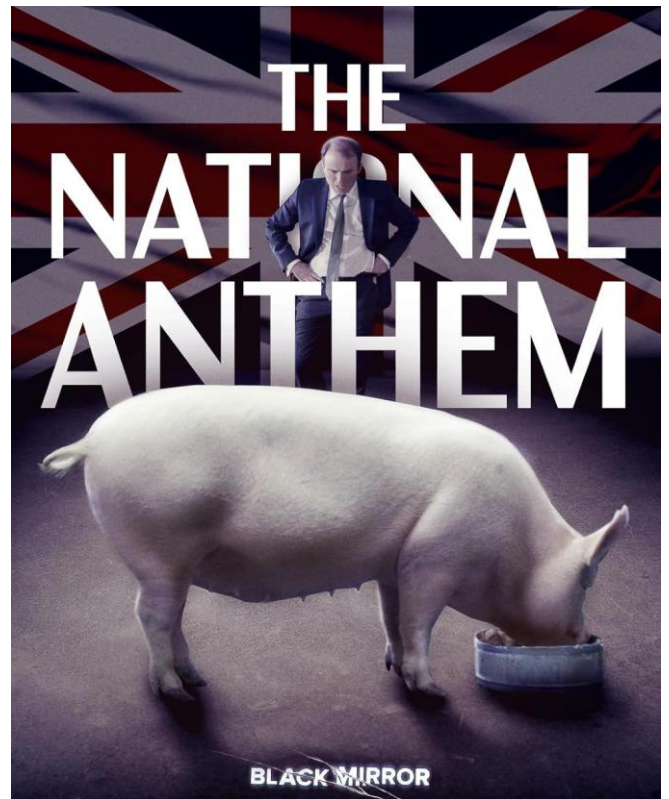
Anthology series of standalone episodes exploring near-future “what if” scenarios about technology and its impact on society, named for the reflective black screens of our devices.



## Key takeaways

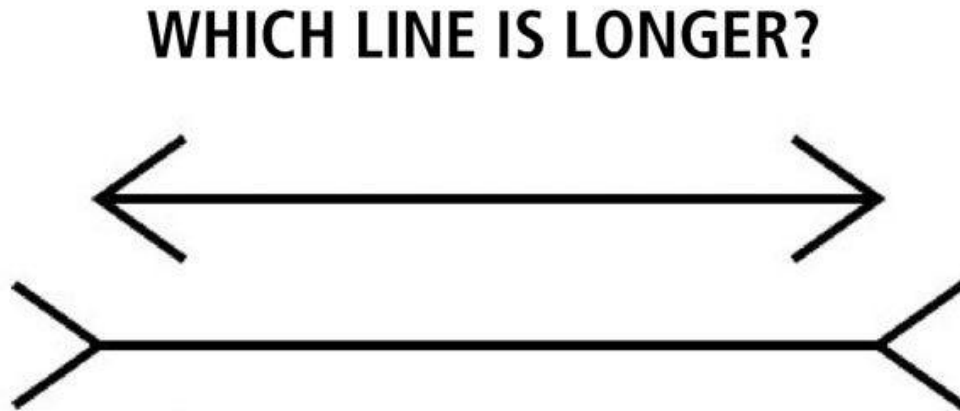
### **S1E1: The National Anthem**

1. Public opinion is volatile and performative: crowds quickly polarize, can switch from supporting one idea to supporting a totally different idea, and can rapidly move from antipathy to hate or from sympathy to love, often driven by outrage rather than nuance.
2. Political leaders sometimes face very challenging moral dilemmas under scrutiny: decisions can sometimes be influenced and shaped by optics, survival, and the public gaze.
3. Privacy and human dignity can be sacrificed for spectacle: personal humiliation becomes consumable content.
4. Negativity bias is the cognitive tendency to give more weight and attention to negative experiences or information than to positive ones; people focus on, remember, and respond more strongly to negative events.
5. Authority also is vulnerable to unconventional threats: attackers exploiting media dynamics can coerce behavior without physical force.
6. Ethics vs. pragmatism: sometimes, what is morally right may be politically or practically unfeasible. The right choice can be different based on context and can be very subjective.
7. Audiences can be complicit without even realizing it at a conscious level: consumption and sharing of sensational content reward those who manufacture spectacle. Remain in control of your digital behaviour; consider the possible effects and the role you might play in the big picture.



*We highly recommend checking out the entire series. Each episode offers a fresh, original approach, with standalone stories delivering powerful messages and thought-provoking content. Like any good movie, there are multiple layers of meaning to unpack.*

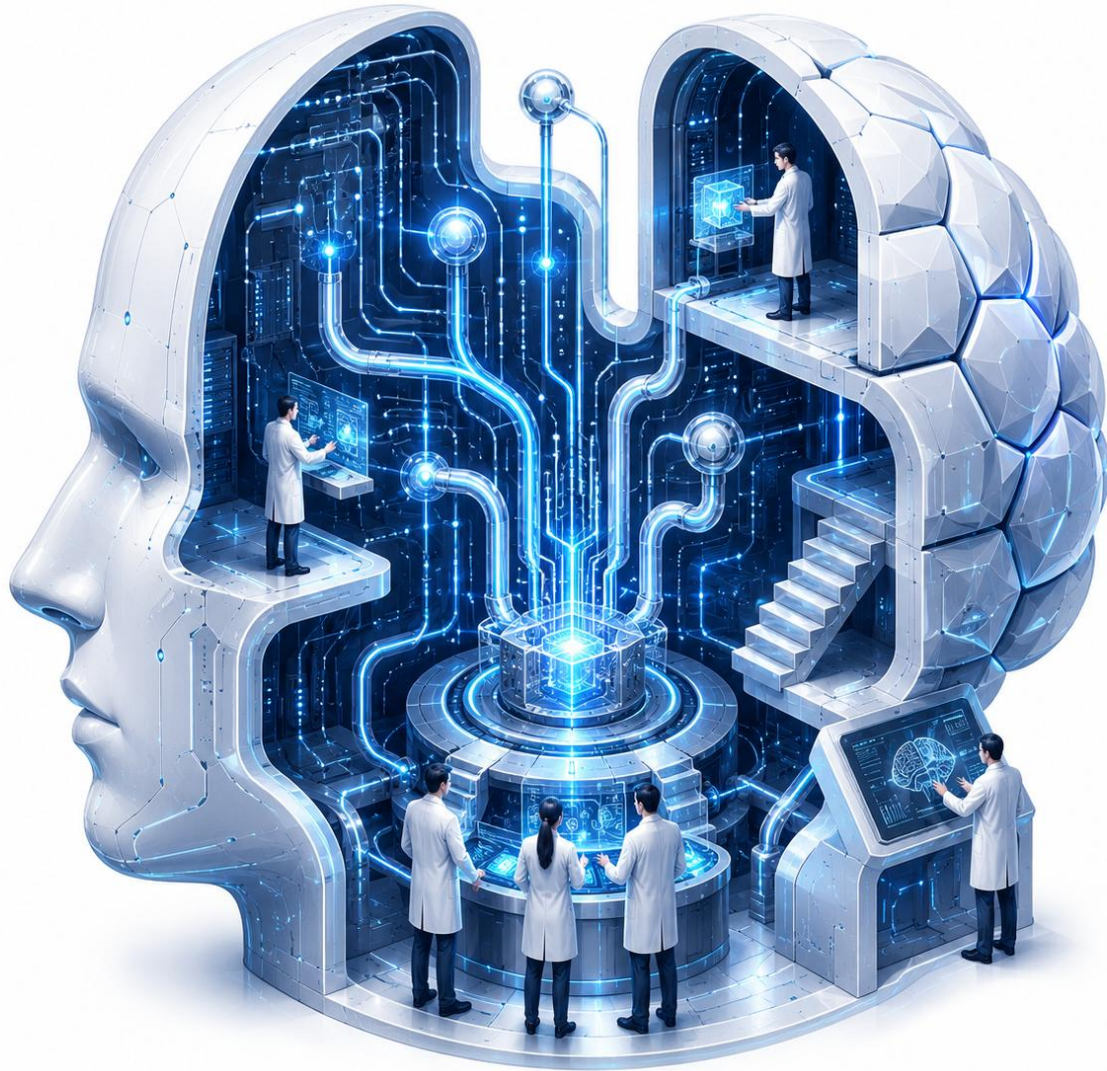
(1) **The Müller-Lyer illusion** shows how the brain's automatic visual processing can misjudge reality: two lines of equal length appear different because of the direction of the arrow-like ends. It is often used to illustrate fast, intuitive System 1 processing.



**MÜLLER-LYER ILLUSION**

(2) **The McGurk effect** is an audiovisual illusion in which what we see influences what we hear. When lip movements conflict with a spoken sound, the brain combines the visual and auditory information and may perceive a completely different sound.





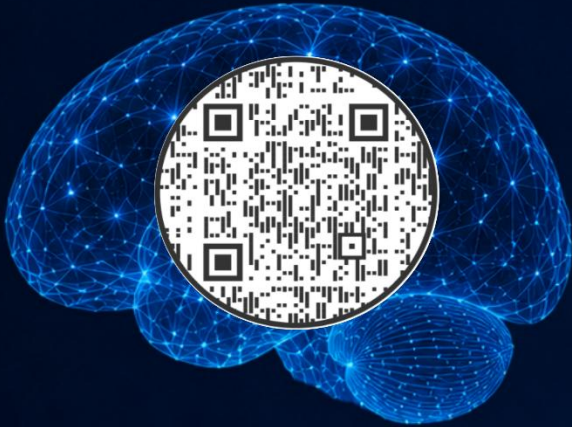
**Thank you for reading this edition of our newsletter.** We greatly value your engagement and support as we continue to strengthen this community of interest. We also appreciate the feedback shared on our previous issue and have expanded both the *Strategic Spotlight* and *Cognitive Culture* sections in response. If you have questions, would like to contribute content, or wish to highlight upcoming events, please contact us at [hqsact.cognitivewarfare2@nato.int](mailto:hqsact.cognitivewarfare2@nato.int).

**Thank You for Perceiving...**



The Elephant and Rider are metaphors for the emotional and rational mind in decision-making.

System 1 and System 2 are a dual-process model of fast intuitive thinking and slow rational thinking in decision-making.



## The Rider

- THE RIDER ROUGHLY CORRESPONDS TO PREFRONTAL SYSTEMS INVOLVED IN REASONING AND SELF-CONTROL
- SLOW, DELIBERATE, ANALYTICAL, EFFORTFUL
- RATIONAL MIND, HIGHER COGNITION, REASONING
- CONTROL PROCESS, INCLUDING REASONING "WHY"
- IS REFLECTIVE SYSTEM 2 TRYING TO STEER THE ELEPHANT



## The Elephant

- THE ELEPHANT ROUGHLY CORRESPONDS TO FAST, EMOTIONAL, AND AUTOMATIC BRAIN PROCESSES, INCLUDING EMOTION AND INTUITION
- IMPULSIVE MIND, LOWER COGNITION, INTUITION
- IS EMOTIONALLY DRIVEN SYSTEM 1



*Jonathan Haidt popularized the Elephant and Rider metaphors, while Daniel Kahneman popularized the System 1 / System 2 model.*