

# Cognitive Warfare

Your Mind is the battlefield

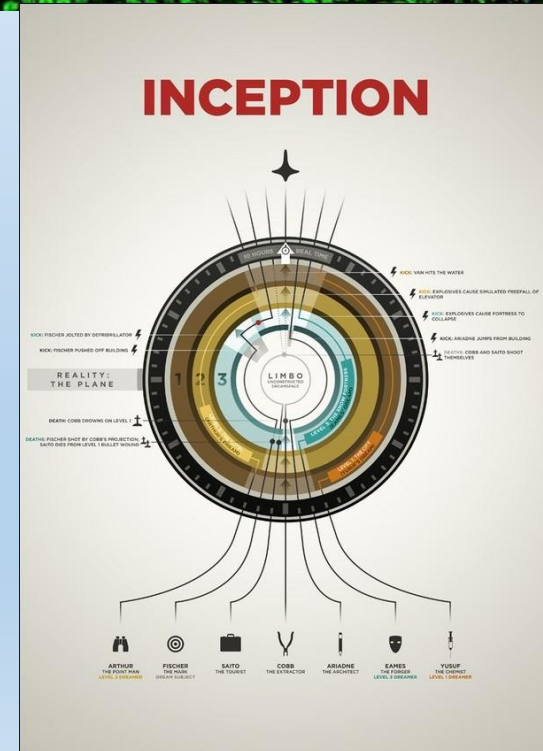
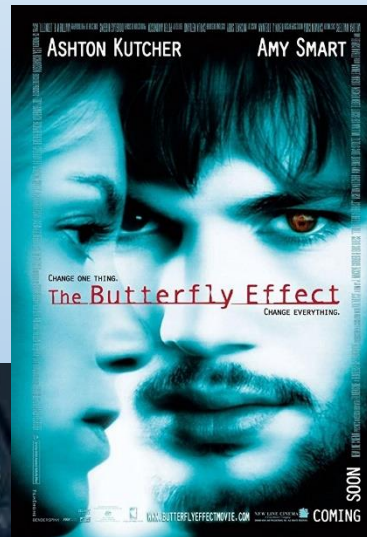
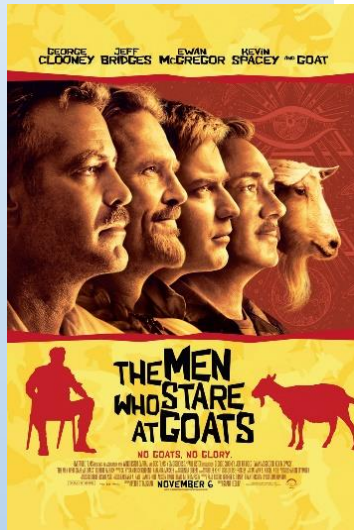
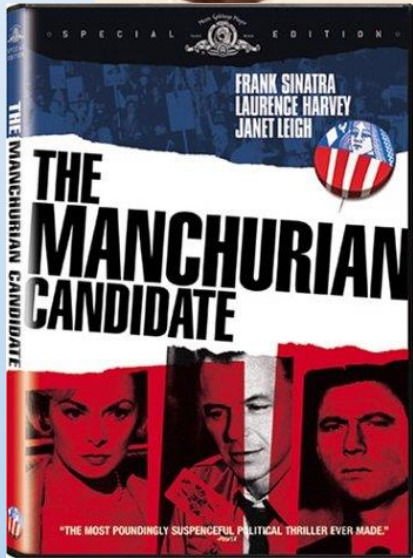


# Who Am I: Richard Benack

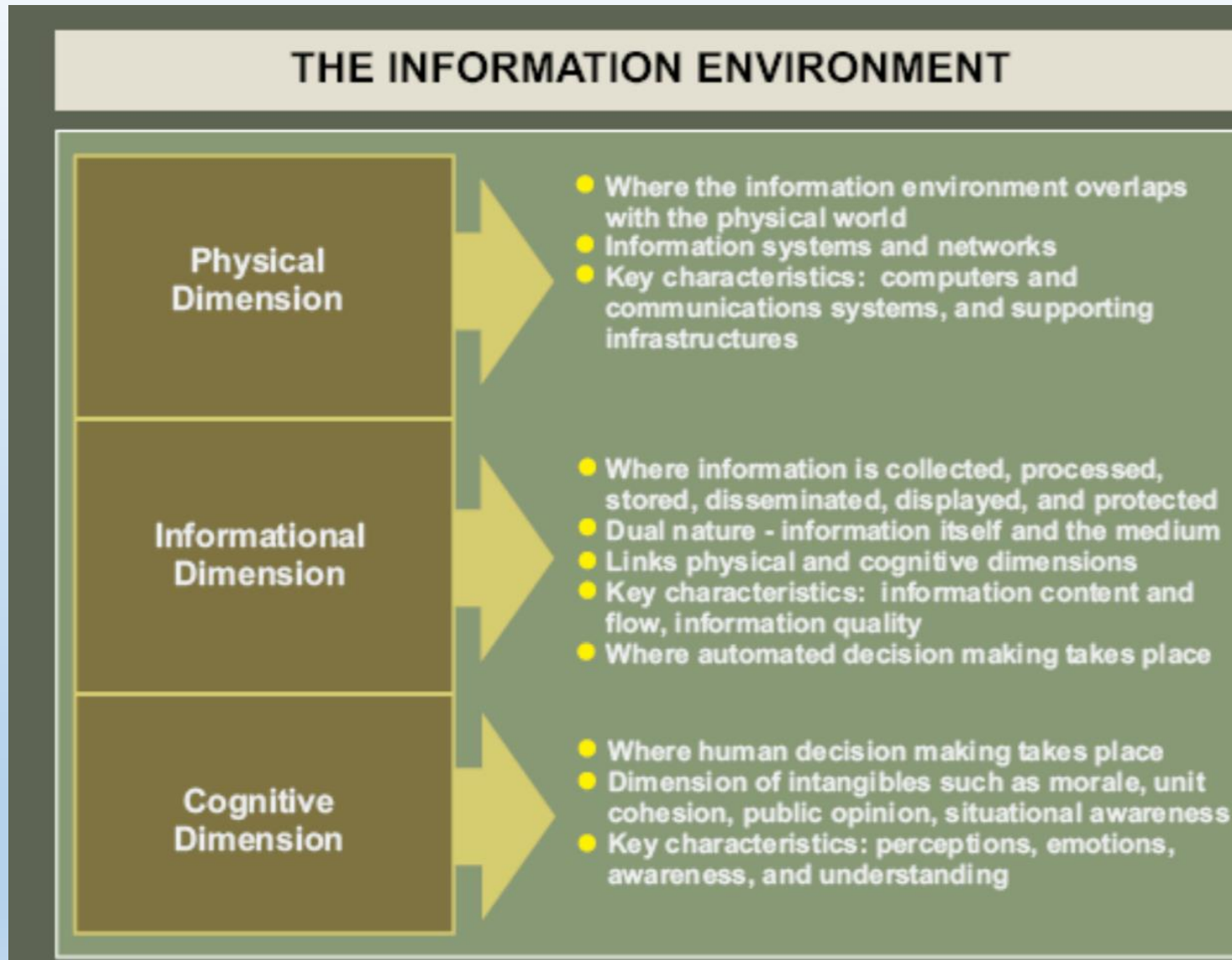
**Richard Benack is a retired Air Force Intelligence and Counter Terrorism Officer with over 20 years of experience doing intelligence, Threat Analysis, security and criminal investigations:**

- Over 20 years of investigative, intelligence and security experience working in the public and private sectors
- Masters of Science (MS), Criminal Justice with an Emphasis in Cybercrime and Intelligence Analysis

# The Cognitive Battlefield - Hollywood Style



# The Cognitive Battlefield



# The Cognitive Battlefield

## The 21<sup>st</sup> century Global Info-sphere



**24/7 rolling news**



**New regional players**



**'citizen journalists'/  
Digital eye-witnesses**



**Blogs, twitter**



**The Internet**



**Web 2.0**

# Influence Operations (IO)

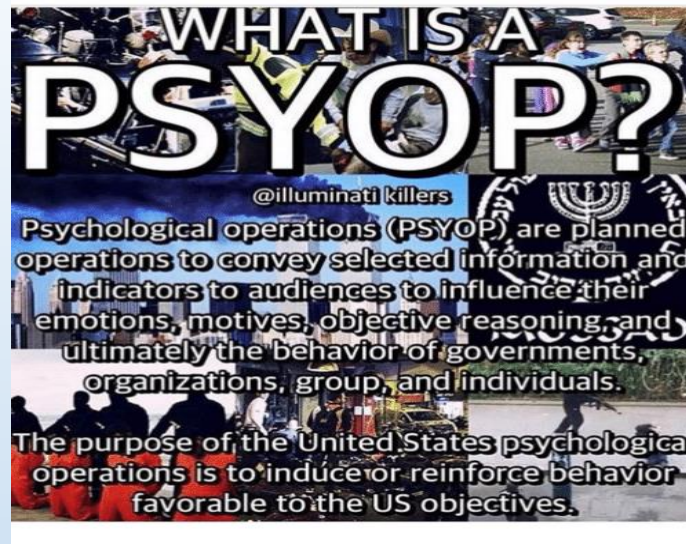
GOAL: Influence an adversary or potential adversary (Targets) in support of specific political or policy objectives. This can be done by:

- Integrating *Psychology, Cybernetics, Information Theory and Technology* into a weapon
- Controlling their Targets information flow, processing, behavior and perception through the use of subconscious attacks
- Undermining their will, cohesion and decision making ability
- Protecting one's own leaders, decision-makers, population and allies from Influencing attacks

# Influence Operations (IO)

1. Directed toward specific targets including: individuals, specific groups or the general public
2. Use the most effective information channels to reach the targets
3. Understand Targets characteristics, strengths and weaknesses, attitudes and beliefs that affect their willingness to be influenced
4. Are designed to influence Targets before they decide to actually engage in “negative” or “unwanted” behaviors (from the attackers perspective)
5. Use messages whose content, format, cognitive and emotional appeal will most resonate with the Targets conscious & subconscious

# Psychological Operations (PSYOP)



- Use communications to influence behavior against adversaries, their supporters, and potential supporters (Targets)
- The process of conveying messages to Targets to promote certain attitudes, emotions, and behavior
- Supports the way a Target is accustomed to receiving information using familiar media techniques, language, and journalistic styles.
  - It can also include art, theater, music, and media format that the Targets rely on for information/entertainment.



# Perception Management (PM) & Attrition



- **Perception** “is a process of inference in which people construct their own version of reality on the basis of information provided through the five senses.”
  - Human minds depend greatly upon previous assumptions and preconceptions
  - If the new information conforms to existing belief, then we usually accept it
- **Perception Management:** “Actions that provide or deny specific information to Targets in order to influence their emotions, intentions, and analytical reasoning.”
  - Influence their decision making process

# Perception Management (PM) & Attrition

- **Deception:** “A conscious and rational effort to deliberately manipulate the perceived reality of a Target to gain a competitive advantage”
  - It seeks to create in a Target a state of mind which will be easy to exploitation & manipulation
  - Disinformation: The deliberate use of misleading information
  - Propaganda: Any type of communication that spreads or reinforces specific beliefs for political purposes.
- Use a campaign to demoralize the Target Audience
  - Creating negative feelings of intense fear and hopelessness
  - Wear the Target down gradually and break their will

# Perception Management targets the Subconscious

6 primary strategies for Perception Management:

- **Preparation** — Having clear goals and know the ideal beliefs you want Targets to hold
- **Credibility** — Make sure all of your information is consistent, using biases, prejudices or expectations to increase credibility
- **Multichannel support** — Have multiple arguments and fabricated facts to reinforce your information
- **Flexibility** — The deception campaign should adapt and change as needs change and based on feedback
- **Concealment** — Contradicting information is destroyed
- **Untruthful statements** — Fabricate the truth

# IO Targets the Subconscious

## Conscious mind 10%

- Will power
- Long term memory
- Logical thinking
- Critical thinking

## Subconscious mind 90%

- Beliefs
- Emotions
- Habits
- Values
- Protective reactions
- Long term memory
- Imagination
- Intuition



# IO Targets the Subconscious

## The Subconscious:

- Is the domain of the emotions
- Runs the body
- Controls and maintains all perceptions of reality
- Stores and organizes all memories
- Represses memories with unresolved negative emotion
- Maintains instincts, generates habits and uses repetition
- Uses and responds to symbols



# IO Targets the Subconscious

- Psychology divides mental functioning into two types:  
**System 1** is fast, emotional, subconscious processing that can react quickly to dangerous situations  
**System 2** is a slower, logical, contemplative system that:
  - Focuses our attention to specific things in the environment
  - Analyzes a situation or piece of information
  - Simulates and rehearses interactions before they occur
- **Disinformation campaigns** can insert ideas and feelings into individuals using techniques to bypass the slower cognitive system (System 2):
  - Harnessing cognitive biases
  - Using the availability heuristics— People favor information that is easily accessed
  - Using emotional examples, images, metaphors, and phrases
  - Flooding peoples data streams with soundbites and examples that enhance a particular agenda

# Cognitive Biases

- Cognitive biases are unconscious rules of thumb that allow people to make quick judgments when faced with new or overwhelming information
  - Allow quicker formation of conclusions and process an almost infinite amount of data
  - Can be imperfect, irrational, and limited judgement accuracy
- When humans make decisions:
  - They make a choice among several alternatives
  - When decisions are based on false information, manipulated reality, and inaccurate perceptions:
    - Alternative explanations are often ignored or not taken into account and deception can occur
  - Opportunities and vulnerabilities for Targets to be manipulated or deceived

# Emotions that can be invoked

Identify what emotions you want the Target to feel



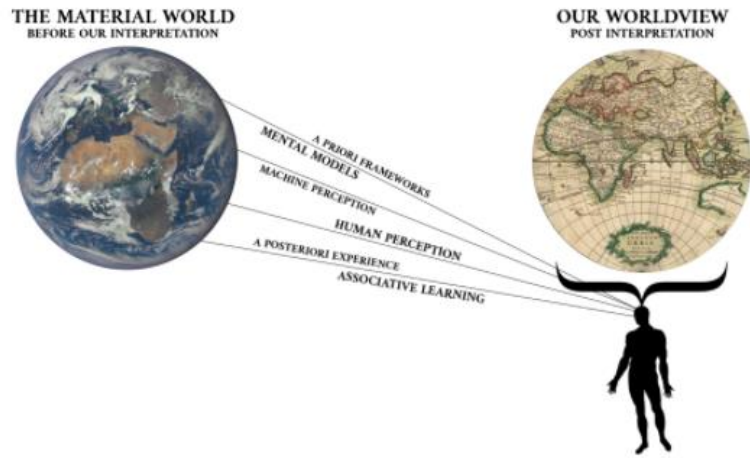
## Social Engineering Emotions

- Anger
- Disgust
- Fear
- Joy
- Sadness
- Surprise





# Reality vs Perception of Reality



That world outlook of yours that exists within your mind is theoretically only accurate to a specific percentage of what *actually* is. And it is this inaccuracy in our worldview that makes for endless problems when we enter the open space of human social dynamics. One man's reality differs from that of another—and we're regularly at odds with one another in our respective attempts to navigate the game of life.

## **IO ATTACKS: Target Their *PERCEPTION* of Reality**

- **People who believe their Perception of Reality & Reality are identical are highly vulnerable to IO**
- **Other views must be "wrong"**

SOMEONE ELSE'S VIEW

OBJECTIVE TRUTH

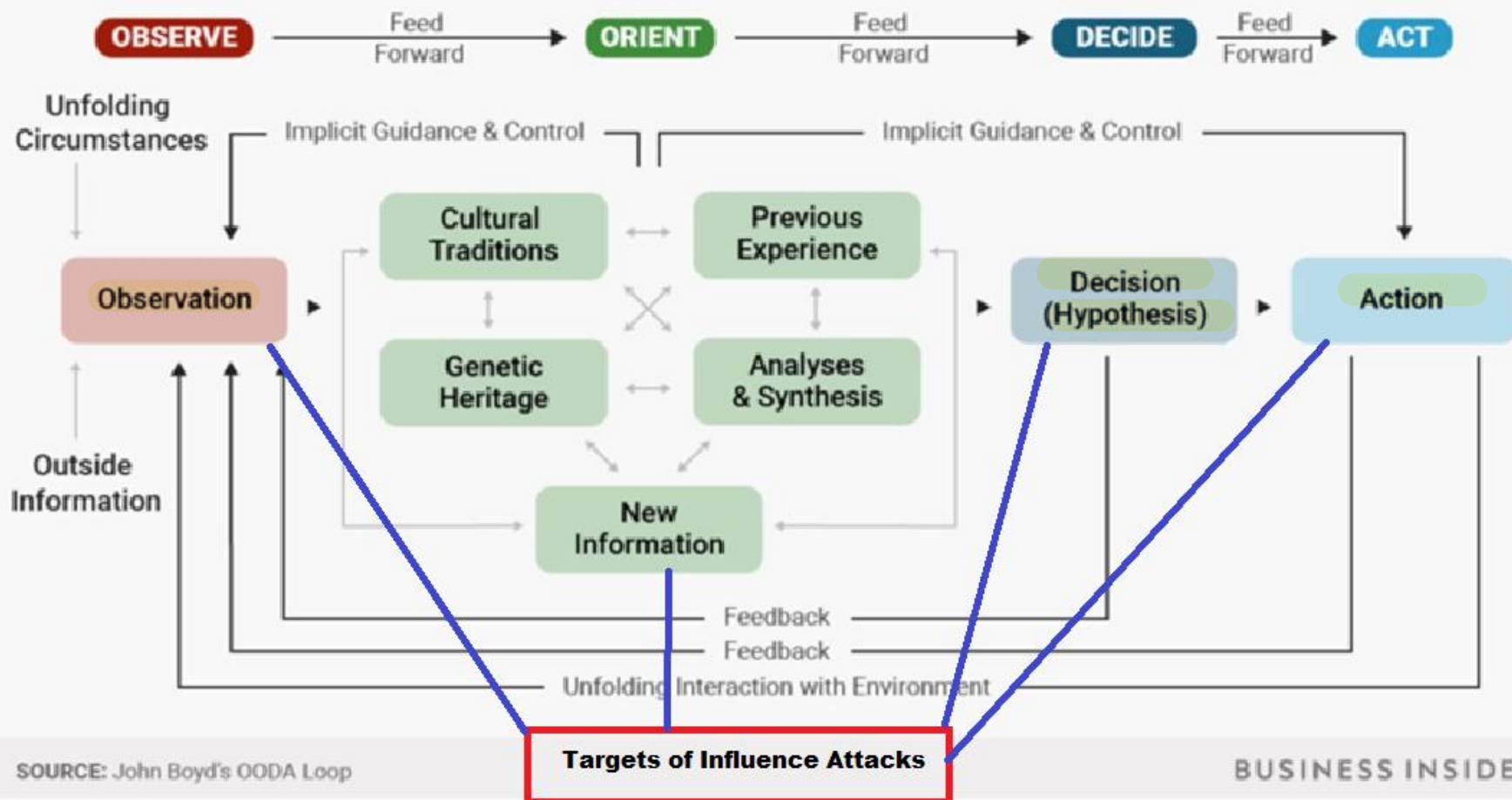
OUR VIEW



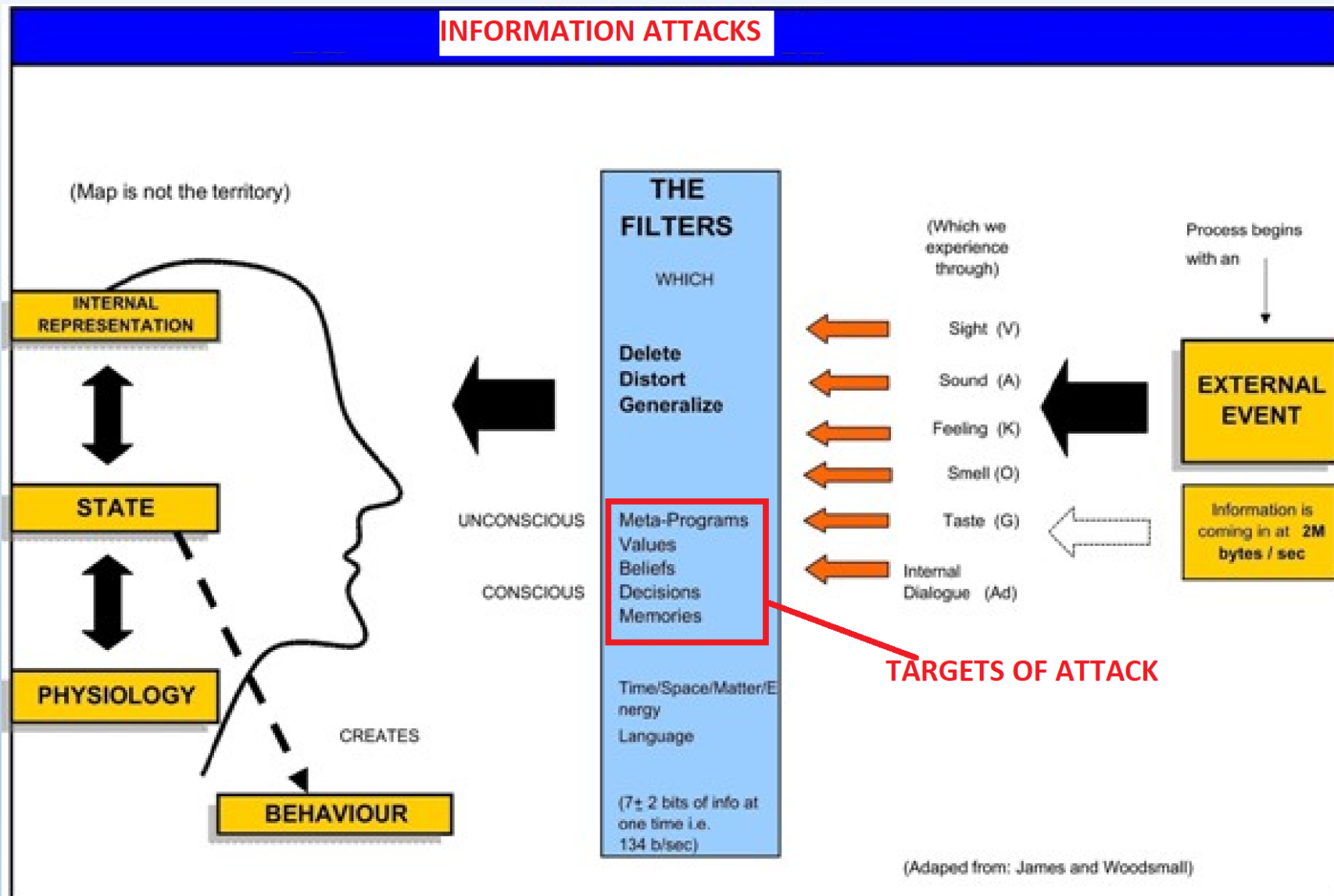
# OODA LOOP – How we process Information

You can disorient the Target and disrupt his decision-making by penetrating his OODA loop.

## THE OODA LOOP



# Targets of Influence Attack - Filters



# Targets of an Influence Attack - Filters

- The *Filter* is the Targets perspective through which they view the world
  - It their psychological profile and biases
  - Locate a Targets weak link in the filter and exploit it
- The filter is the Targets moral, psychological, personal characteristics, habits, and psychological deficiencies that can then be exploited through deception
- The side that best is able to understand the opponents thoughts or predict its behavior, will have the best chances of winning
  - Study the Targets filter and exploit it for their own benefit.

# Targets of an Influence Attack

- **MEMORIES:** Our mind filters information through our memories. As we get older, our actions are more often based on past memories. Change a Targets memories (i.e. what they remember), change their reality
- **DECISIONS:** Past decisions can create beliefs or affect our perceptions. Changing a subject's belief of a decision can change their actions
- **META-PROGRAMS:** Meta Programs are patterns of thinking that control how you perceive an event.
  - Knowing someone's Meta Programs can help you predict people's actions
- **BELIEFS:** Beliefs are generalizations about how people perceive the world.
  - What people perceive to be true is what they project on to others and the world
- **VALUES AND ATTITUDES:** *Values* are how we decide what actions are good, bad, right or wrong. *Attitudes* are a combination of our memories and the decisions we make in life. It is how we think and feel about our beliefs, and the expression of these beliefs

# Influence Operations & Attack Methods



Sourced from *Spy vs. Spy*. It was a wordless comic strip published in *Mad* magazine. It features two agents involved in stereotypical and comical espionage activities. [Description inserted by Christian Duke

# Techniques of an Influence Attack

1. Break population down into groups, based on interests, politics, concerns/fears, biases, etc
2. Determine who in each group is most susceptible to given types of messages
  - Focus on those most easy to influence (i.e. the young, political activists, conspiracy sympathizers)
3. Determine the social dynamics of communication and flow of ideas within each group
4. Determine what Narratives/Story dominate the conversation in each group
5. Push a narrative that is favorable to you
6. Use continual monitoring and interaction to determine the success of your effort and adjust the story & tactics in real time

# Techniques of an Influence Campaign

1. Disinformation has **different messages for different audiences**
  - Vary the messages by Target region, socioeconomic group, age, education level, income, status and occupation
2. The disinformation campaign uses a **number of different channels and speakers**
  - Use large volumes of disinformation and constant repetition of it
  - Use seemingly independent sources repeating the same message
3. Disinformation messages will often be built around an “**element of truth**” that will make them more believable and more difficult to call out.



# Techniques of an Influence Campaign

## 4. An Influence Campaign has **different tactical aims and objectives for different audiences**

- Persuade one side that the other side is a threat
- For each Target, Identify those issues that generate the most emotions around them
  - Fuel and amplify these emotions as much as possible
  - A Target affected by strong emotions will behave more irrationally and be easier to manipulate
  - Fear is by far the most effective emotion & polarize groups the most
- Confuse mainstream media if they try to balance between conflicting versions of events
- Information Overload for those who try to find more sources of information T-Shirt gang attempt.
- Denigrate those who call out these tricks "He's crazy"
- Try to intimidate opposing individuals with personal attacks
  - use fear mongering via threats (187, notes, in-person, RIAB, men at home, anonymous text, targeted spam etc) and going to family and friends homes etc. Sinaloa brand (scares people due to reputation for violence in Mexico); the reputation does not stop at the borders, and teams brand (PIRU =Feared

# Techniques of an Influence Campaign (IC)

Strategies for an Influence Attack. These include:

- **Preparation:** Having clear goals and knowing the ideal view you want Targets to hold
- **Credibility:** Make sure all of your information is consistent, often using prejudices or biases to increase credibility
- **Multichannel support:** Use multiple arguments and “facts” (real or not) to reinforce your information
- **Flexibility:** The IC needs to adapt and change over time as the situation changes
- **Coordination:** Ensure a consistent and synchronized distribution of information to the Targets
- **Untruthful Statements:** Must be (or at least seem) credible to the Targets
- **Concealment:** Contradicting information should be discredited

# Techniques of an Influence Campaign

- **Face-to-face communication:** is the most effective means of transmitting a persuasive message. *Large amount of human resources.*
  - Can be employed in protests, rallies, demonstrations, rumor campaigns, group discussions, lectures, social organizations & activities , entertainment events
- **Audiovisual media:** such as television, are the second most effective means of communication *On Demand TV*
- **Audio media (loudspeakers and radio):** lend themselves to the transmission of brief, simple messages *RIAB*
- **Visual media:** can transmit long, complex material. Visual media generally have the least amount of popular appeal.
- **Themes:** are reinforced by using several media to deliver the same basic message.
  - For example, radio and television can augment leaflets; face-to-face communication can support newspaper circulation
  - More sources make the message appear more credible

*On-Demand television queue intrusion (states of the art which will be an entire article, and traditional methods as the mobile cartel teams rolls with radio-in-a-box playing canned content like one NPR segment referencing Navy SEALs who became a DEA agent when Rick Steves was supposed to be on. Recycle old "on message" targeted content.*

# Social Engineering



# Social Engineering

- Social engineering is 'hacking' a person's mind using:
  - Psychological manipulation
  - Deception for the purpose of information gathering [Jennifer Marquez](#)
- Social engineering techniques often fall into several categories
  - *The Direct Request*: simply ask for the information or access to a system with no prior set up. -low level of success
  - *In a Contrived Situation*, multiple factors added to a basic request, making everything more complex/confusing
    - Makes it more likely the target will divulge information
    - Claim a looming deadline, they might get fired if miss they it and they lost their password and the person who can reset it is sick
  - *Personal Persuasion*: overcome resistance of the target by having them believe they are making the right decision
    - The tendency to trust people. Especially people who are like them (i.e. they are wearing the company logo)
    - The fear of getting into trouble if you don't comply with the request

# Common Methods of Social Engineering

- *Diffusion of responsibility* - The target is made to believe that they are not completely responsible for their actions. Creates situations with many factors seem to dilute the personal responsibility for breaking policy.
  - May drop names to make the target think a senior executive needs this information
  - May claim someone higher up has made the decision and the Target just needs to follow up
- *Chance for ingratiation* - The target is led to believe that compliance with the request will enhance their chances of receiving benefit such as:
  - Gaining advantage over a Competitor/Opponent
  - Helping a sales opportunity
  - Getting in good with management and help their career
- *Trust Relationships* - The social engineer develops a trust relationship with the target, often based on previous interactions: [Jennifer Marquez, Colombia etc](#)
  - People more likely to help people they trust and have relationship with

# Common Methods of Social Engineering

- *Moral duty* - Encouraging the target to feel a sense of moral duty or moral outrage over a situation. Make the target believe:
  - Some individual or group is being mistreated and you must help them
  - The organization deserves to be punished for its actions.
    - The target may know what they are doing is wrong but believe it's the morally "Right" thing to do.
- *Guilt* - Most people try to avoid feelings of guilt. A target is made to believe that complying with a request will avoid a feeling of guilt and not complying may hurt people or groups:
  - Create a strong emotional appeal to the target
  - Manipulate their empathy
  - Create sympathy for a individual or group of people
  - Make the target believe they have a responsibility to fix a situation
  - Use emotional words to generate sympathy ("vulnerable", "victimized", "exploited")
- *Identification* - Try to get the target to identify with the social engineer. People like others who are like them.
  - The social engineer tries to build a connection with the target
  - i.e. worked for the same company, same hobbies, same political views

# Common Methods of Social Engineering

- Requests for information can be highly informal and appear to be casual questions.
  - “so what are you working on”?
  - “Which of you customers are the most difficult to with”
  - “I hope your groups security is not as weak as our companies security”
- *Desire to help* - Rely on people’s desire to be helpful and reluctance to say “No”
  - Holding the door for someone with packages
  - Ask someone to “Lend” you their password to log in “just this one time”
- *Cooperation* – People will often want to cooperate and avoid conflicts. Avoiding conflict with the social engineer will feel better. Give in so as to appear cooperative and collaborative.
  - “Just send the confidential data to customer through email”
  - “Just give the person whatever they want, Its their responsibility”
  - “Just post this information to make them stop asking”



# Principals of Compliance

- Social Engineering is about Increasing the Likelihood of “Compliance” (i.e. Target performing a desired action).
- *Emotions Motivate Behavior*: Emotion is the key to increasing the likelihood of Target compliance
  - Emotions are the motivating force behind most behavior and influence most of our decisions
  - *Affect Emotions, Affect Behavior*: If you can affect their source of a emotions, then you can affect their behavior.
- *Emotions Provide Motivation, not a Solution*: Emotions are ½ of social engineering, logistics are the other ½.
  - Emotions provide the motivation and goals for behavior, but not the path to reach those goals.
  - Create both a path and a set of incentives for them to engage in our desired behavior

# Social Engineering

- *Reciprocity* – People tend to return a favor
  - i.e.pervasiveness of free samples in marketing
- *Commitment and consistency* – If people commit to an idea or goal (orally or in writing), they are more likely to honor that commitment because
  - it's now tied to their self-image.
  - Even if the original incentive or motivation is removed after they have already committed, people will continue to honor the agreement
- *Social proof* – People will do things that they see others doing
  - If its seen as OK to hate a person/group, others will follow
- *Authority* – People will tend to obey authority figures, even if they're asked by those figures to perform objectionable acts.
- *Liking* – People are easily persuaded by others that they like
- *Scarcity* – Perceived scarcity will generate demand
  - For example, by saying offers are available for a "limited time only," retailers encourage sales

# Principals of Social Engineering Compliance

- Social Engineering is about Increasing the Likelihood Of “Compliance” (i.e. performing a desired behavior).
- Associate Emotional Goals With Compliance:
  - Associating compliance with emotion-motivated goals creates an incentive for compliance
  - Compliance can involve increasing/decreasing positive emotions, and/or decreasing increasing negative emotions to motivate the desired behavior in the target
  - how strongly compliance and emotion based goals are associated is based on the Targets perception, not yours
- Align Compliance with Emotional Goals: Another way to create incentive for compliance is to align compliance with emotion-motivated goals.
  - The less compliance and emotional goals agree, the less incentive there is to perform the desired behavior.

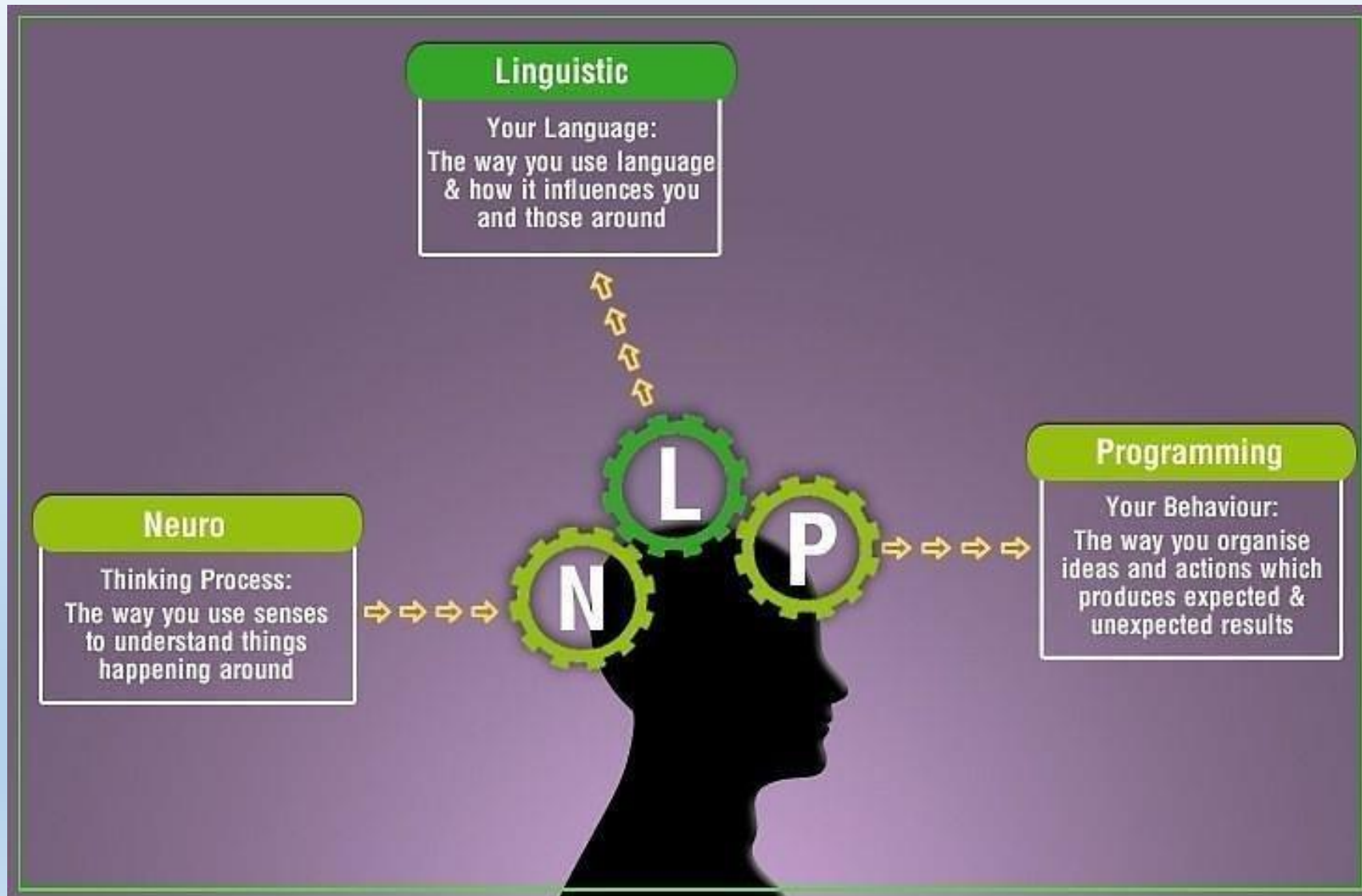
# Principals of Social Engineering Compliance

- Associate Emotional Goals With Compliance:
  - Associate desired behavior (compliance) with emotionally motivated goals
  - Compliance can be based on increasing/decreasing positive emotions, or increasing/decreasing negative emotion
- Why we need to manage the Targets Perception around the desired goals
  - i.e. Encourage Target to feel Angry/Sad/Fear about <ISSUE> and the need to do <Desired Behavior>
- Align Compliance with Emotional Goals: Different emotions will produce different outcomes
  - If desired outcomes and emotions don't align, the target is less likely to perform the desired behavior
  - Anger/Hate/Fear each may drive different behavior in Target

# Principals of Social Engineering Compliance

- *Emotions Motivate Behavior:* Emotion is the key to increasing the likelihood of compliance
  - Emotions are the motivating force behind most behavior, and provide the goals that direct our decisions.
  - Affect Emotions → Affect Behavior: If you can affect their source of a emotions, then you can affect their behavior.
- *Emotions Provide The Motivation, However Not The Solution:* Emotions are one half of the social engineering process, logistics are the other half.
  - Emotions provide the motivation and goals for desired behavior, but not the path to reach those goals.
  - Constructing a situation to enable compliance involves creating a path and a set of incentives for the behavior.

# NLP and Influence



# NLP is basis of many PSYOP

*Subliminal*: “Below Threshold”

- The word “*subliminal*” literally means “below threshold.”
  - It means that you are not aware of the message – it is below the threshold of your conscious perception
  - You still take the message in as your subconscious mind processes and stores this information.
- In Subliminal Messaging, you send suggestions directly into the subconscious mind of a Target

# NLP is basis of many PSYOP

- NLP is the practice of:
  - Understanding how people organize their thinking, feeling, language and behavior.
  - Causing change to persons behavior, perception, thoughts, & emotions
  - Accessing & Influencing peoples decision making processes
- **EXAMPLE OF NLP:** Meme's are a popular tool for creating an emotional response and associating it with a message



The T-Shirt Gang examples:

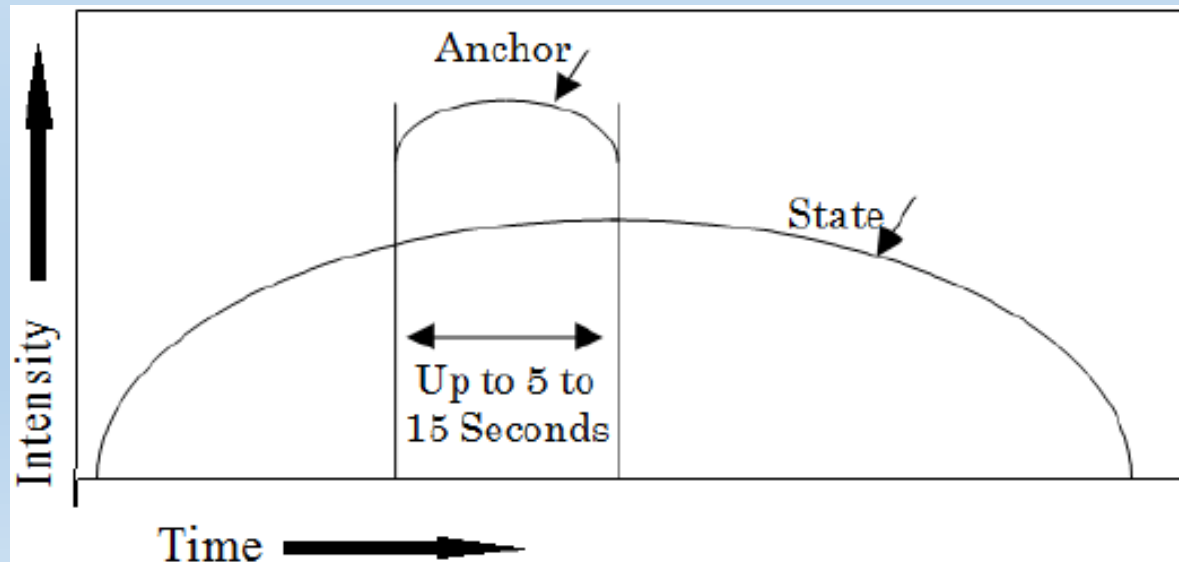


# NLP is basis of many PSYOP

- By surrounding a group with painful stimuli, it is possible to keep them in a perpetual state of fear or sadness
- These painful messages are repeated at the group over and over again through various methods
- Example of Psychological Operations
  - “ATTRITION: Gradual erosion of a groups will so they become convinced that nothing they can do to change a situation.”
  - EXAMPLE: A relentless campaign is used to demoralize a group, which includes creating perpetual negative feelings of intense fear, anger and hopelessness.

# NLP is basis of many PSYOP

- Use “Triggers and Anchors” to create behavior or emotional change
  - An Anchor is created when an emotional state is linked to an object, person, sound, smell, place, color, etc
  - A Trigger (event) then invokes an Anchor (emotional state) in the Target
- EXAMPLE: Use a story/meme to create a desired emotional state (angry, happy, fear), then subject person to a stimulus until the emotion becomes linked/anchored to it
  - Whatever event/object the person was exposed to during the anchoring process becomes trigger for that emotion



# NLP & Laws of Persuasion

- Law of Dissonance: People are more inclined to follow people who are consistent in their behavior, beliefs, attitudes, and values
  - More willing to follow people whose actions are consistent with their stated beliefs.
- Law of Obligation: When others do something for us, we feel a strong need to return the favor
  - Create a sense of obligation within the other person, so that they are obliged to do something for you
  - Telling a “secret” also creates an obligation and a bond between you and the person. They are more likely to believe the person
- Law of Connectivity: The more we feel connected to, a part of, liked by, attracted to someone, the more influential they become
  - Humans tend to be drawn more towards those who are like us and people we associate with
  - Easier to be influenced by people who share our beliefs
- Law of Social Validation: Humans want a sense of belonging & acceptance
  - Social validation/peer pressure compels us to change our behaviors, our attitudes, and our actions,
  - Even when what doesn't really match our true feelings or beliefs
  - “All <PEOPLE LIKE US> are angry about <FILL IN ISSUE>”

# NLP & Persuasion

- Law of Scarcity: Whenever choice is limited or threatened, this makes us crave it more.
  - Feelings of scarcity are promoted include: deadlines, limited spaces/numbers/access, potential loss of or restricted freedom.
  - Claim your opponents are taking away your rights or freedoms
  - “Help Stop <OPPOSITIONGROUP> from taking away our right to <PERCEIVED RIGHT>”
- Law of Verbal Packaging: Using the right words and phrases is captivating, while using the wrong words and or phrases is devastating.
  - Replace offensive words and phrases with less offensive ones.
  - Don't use of too much technical language or jargon. Makes some people feel inferior and less able to easily communicate with you
  - Also try not to use too much profanity or slang; this usually gives a bad impression to anyone
  - Speak in your everyday language and keep it simple and clear, also try to keep sentences short
  - Use words that engage your audience, or words that catch your audiences attention. Use ideologically & emotionally triggering words
  - Never talk down on the person you are communicating. Maintain respect and rapport for your target audience.

# NLP & Persuasion

- Law of Expectations: a person will usually comply with a given expectation.
  - People tend to make decisions on the way others expect them to act.
  - Uses words and language that indicates what you are asking has already been accepted by the other person.
  - An embedded command: A technique to actually bypass the conscious mind and communicate directly with the subconscious mind.
  - “You will be Coming To the Protest, Right?”
- Law of Involvement: Engage someone's five senses, and involve them mentally and physically in issue;
  - Ask questions to engage the person mentally, or tell them relevant stories
  - Repetition of certain ideas you want to communicate to a person
- Law of Esteem: People want praise, recognition, and acceptance. Praise boosts the self esteem, and it can make that person easier to want to be influenced.
  - Praise people who agree with your ideas
  - “You showed great <COMPLEMENT> by <AGREEINGWITHMYIDEAS>”

# NLP & Persuasion

- Law of Association: Our minds and brains link objects, gestures, and symbols with our feelings, memories, and life experiences.
  - Anchoring is a technique that captures the feelings, memories, and emotions of certain events, places or things in another person.
  - It will usually reproduce the exact emotion or feeling they experienced (or imagined), and it will be easier to influence them if you can get them to associate this anchor with what you want to influence them with.
  - “Imagine how great it will feel when <GOAL> is finally implemented”
- Law of Balance: When you are trying to influence someone you must keep your message balanced.
  - Your message should both target the emotions and maintain a perception of logic
  - Emotions create movement and action, while logic plays the role of creating a foundation for emotion
  - Idea must be emotionally appealing and have a Façade of logic & being realistic

# State Sponsored Influencing



# Domestic Influence Operations



EXECUTIVE OFFICE OF THE PRESIDENT  
OFFICE OF SCIENCE AND TECHNOLOGY POLICY  
WASHINGTON, D.C. 20502

September 15, 2016

MEMORANDUM TO THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: John P. Holdren  
Director

A handwritten signature in black ink, appearing to read 'JPH', is placed to the right of the typed name 'John P. Holdren'.

SUBJECT: Implementation Guidance for Executive Order 13707: Using Behavioral Science Insights to Better Serve the American People

## INTRODUCTION

On September 15, 2015, President Obama issued Executive Order 13707, “Using Behavioral Science Insights to Better Serve the American People,” recognizing that “behavioral science insights can support a range of national priorities, including helping workers to find better jobs; enabling Americans to lead longer, healthier lives; improving access to educational opportunities and support for success in school; and accelerating the transition to a low-carbon economy.” The Executive Order calls for the Assistant to the President for Science and Technology, on behalf of the Social and Behavioral Sciences Team (SBST), to provide agencies with advice and policy guidance to help them execute the policy objectives of the Order.

This guidance document focuses on agency implementation of Section 1(a)(i) of the Order, which encourages agencies to identify promising opportunities to apply behavioral-science insights to Federal policies and programs. It is organized around four key aspects of Federal policy where research and practice show that behavioral factors play an especially strong role in program outcomes<sup>1</sup>: (1) determining access to programs, (2) presenting information to the public, (3) structuring choices within programs, and (4) designing incentives.

In many cases, program changes that leverage behavioral-science insights can be done under existing authorities. In cases where changes to underlying program design are required, policymakers are encouraged to consider how such changes could be accomplished while preserving overall program objectives. Agencies are encouraged to contact SBST for advice and assistance as they work in support of this directive.

DETAILED GUIDANCE



# Russian Influence in the West



## Russian Influence Goals:

- Portray Russia positively and/or the West negatively
- Confuse Western audiences with false stories
- Lower the morale and the psychological state of their enemy and demoralize and disinform them
- ‘Weaponize information’ for political purposes
  - Often based on NLP
- RT/Sputnik -
  - RT looks like a standard news network
  - Runs both normal news stories and propaganda
- Uses Social Media
- Use of international & domestic groups/organizations to cause confusion and spread propaganda

# Russian Influence in the West



## Russia's Social Media Influence Operations – Multi-platform, Full Spectrum

Objective	Platforms	Purpose & Advantages
Placement	Primary: <b>4Chan, Reddit</b>	<ul style="list-style-type: none"> <li>• Insert forgeries into social media discussions</li> <li>• Seed conspiracies into target audiences</li> <li>• Spread kompromat on targeted adversaries, both true &amp; false information</li> <li>• Hides Kremlin attribution, provides plausible deniability</li> </ul>
	Secondary: <b>8Chan, YouTube, Facebook</b>	
Propagation	<b>Twitter</b>	<ul style="list-style-type: none"> <li>• Spread narratives through overt Kremlin accounts &amp; covert troll farm personas</li> <li>• Amplify select target audience stories &amp; preferable narratives supporting Kremlin goals (<i>Computational propaganda make falsehoods appear more believable through repetition &amp; volume</i>)</li> <li>• Inject stories into mainstream media worldwide</li> <li>• Attack political opponents, foreign policy experts &amp; adversarial media personalities</li> </ul>
Saturation	Primary: <b>Facebook</b>	<ul style="list-style-type: none"> <li>• Amplify political &amp; social divisions, erode faith in democracy through discussions &amp; ads</li> <li>• Pull content from other platforms into trusted friends &amp; family discussions</li> <li>• Recruit target audience for organic propaganda creation/distribution or physical provocations (protests, rallies or even violence)</li> </ul>
	Secondary: <b>Google, LinkedIn, Instagram, Pinterest</b>	
Hosting	<b>YouTube</b>	<ul style="list-style-type: none"> <li>• Overt propaganda posts obscuring Kremlin hand (RT)</li> <li>• Sharing of video content to target audience via producers &amp; reporters rather than standard television channels</li> </ul>

Source: C. Watts (Foreign Policy Research Institute, Alliance For Securing Democracy, Center For Cyber & Homeland Security)

# Reflexive Control



- Reflexive control is a "branch of the Control Theory related to influencing the decisions of others."
- Reflexive control is the process of manipulating information so that
  - The enemy will be compelled to take actions favorable to one's own side
  - Interfere with their decision-making process
  - Communicating ideas that create or confirm another's assumptions to provoke another to act in a desired manner
- It can include "Conducting **psycho-energetic warfare** and other types of nontraditional influence on the consciousness and the mental state of the enemy"

# Types of Reflexive Control Attacks

- **Distraction**— Creating a real or imaginary threat against an opponent thus forcing the Target to reevaluate his options
- **Overload**— Sending the Target a large amount of conflicting information
- **Paralysis**— Creating the belief in a Target of a specific threat to a vital interest or weak spot
- **Exhaustion**— Cause the Target to carry out useless actions, thereby entering a fight with expended resources
- **Deception**— Force the Target to focus on a spot of your choosing
- **Divisive techniques**— Cause the Target to believe he must operate in opposition to his friends/allies interests
- **Pacification**— Using a peaceful attitude and approach to cause the Target to lose vigilance
- **Deterrence**— Create the impression of superiority
- **Provocation**— Force the Target to act to your advantage
- **Suggestion**— Offer information that negatively affects the Target legally, morally, ideologically or in other areas
- **Pressure**— Offer information that makes the Target discredit its own beliefs

# Targets of IO Attack



## Applying Reflexive Control Theory

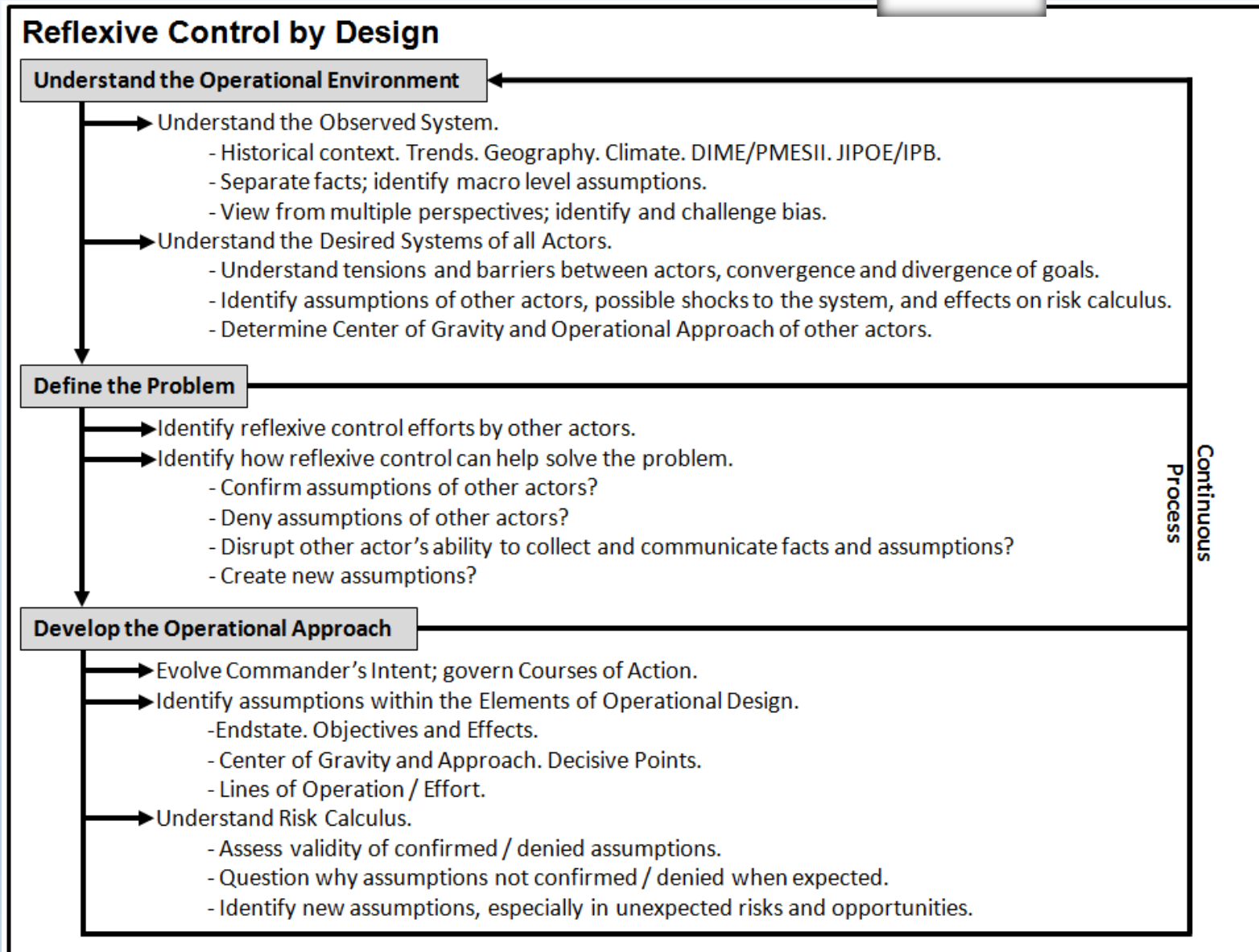
### Employing Reflexive Control

1. Identify the desired decision of another actor.
2. Define the threat or opportunity that alters their risk calculus.
3. Describe the assumption the actor must believe.
4. Create the reflexive ideas that supports the assumption.
5. Communicate the ideas to the other actor.

### Defense Against Reflexive Control

1. Identify a risk or opportunity, especially when unexpected.
2. Separate facts and assumptions.
3. Assess validity of assumptions considering perspective and source.
4. Determine assumption's effects on risk calculus.
5. Make informed decision.

# Targets of IO Attack



# Russian Influence on FB


## How can I see if I've liked or followed a Facebook Page or Instagram account created by the Internet Research Agency?

[Computer Help](#) [Mobile Help](#) ▾

[Share Article](#)

We are taking action to be more transparent about the foreign interference in the 2016 US Elections. We've taken down fake accounts and Pages by the Internet Research Agency and have shared this information with Congress.

Check below to see if you've liked or followed one of these Pages or accounts.

Page	Like / Follow Date
You haven't liked or followed any pages or accounts from the IRA (Internet Research Agency).	
 <a href="#">Login with your Instagram account to see if you've followed an IRA Instagram account.</a>	

# Example: Russian Influence on FB Group

1. Post Link to Russian propaganda sources like RT & Sputnik
2. Consistently speaks very positively of Russian government or allies (i.e. Syria, Iran)
3. The messages are consistent with ideology of group
  - Leftwing, Rightwing, Libertarian, Socialist, Anarchist, Conspiracy theorist, etc
  - People are less critical of information that supports their world view
4. Most people posting the information don't believe they are working for the Russians
5. Some Trolls
  - Consistently post pro-Russian information
6. Weak or biased Admins can contribute to the problem
  - Lack of ideological diversity



# Chinese Influence Operations



- China's IO is based on the "Three Warfares". The concept is based on three mutually reinforcing strategies:
  - The coordinated use of strategic psychological operations
  - Overt and covert media manipulation
  - Legal warfare designed to manipulate perceptions of target audiences abroad
- **Methods**
  - *Presenting One's Own Side as Just*
  - *Undermining the Opposition's Will to Resist*
  - *Encouraging Dissension in the Enemy's Population*
  - *Implementing Psychological Defenses for own Population*
    - Often based on reinforcing Marxist ideology

# Chinese Influence Operations



- Based on Sun Tzu's The Art of War and The Thirty-Six Stratagems
  - if misleading or deceptive information is fed to decision-makers, the resulting decisions will themselves be wrong.
- Attacking the enemy's mind is among the chief strategies China will use
- Chinese influence operations have received little or no scrutiny from most news media.
- Have others do most of their work
  - Hiring former government officials to lobby on its behalf
  - Coercing American companies operating in China into influencing the U.S. government
  - Front groups include Chinese community associations and student groups along with organizations funded by China engaged in Chinese language, and cultural activities.

# Chinese Influence Operations



- Form strategic partnerships with foreign media, to provide them China related news
- Engaging in strategic mergers and acquisitions of foreign media and cultural enterprises
- Employing foreigners to explaining PRC policies
- Set up think tanks and research centers to help shape global public opinions
- Setting up academic partnerships with foreign universities and academic publishers while imposing China's censorship rules
- Offering strings-attached academic funding through the Confucius Institutes and other China funding bodies
- Promoting China's cultural and public diplomacy from scholarly publishing, to acrobatics, to Chinese medicine.



# Russian vs Chinese IO



- Russian

- Operational acts to achieve specific objectives
  - Based on Reflexive Control theory
  - Often Driven by KPI & Metrics (i.e. posted 30 new stories)
- Intelligence services play a leading role because they possess the skills to operate clandestinely
- Cultivate collaborators who may not understand with whom they are dealing or why

- Chinese

- focus on individuals rather than outcomes
- Intelligence services facilitate meetings and contacts to support Chinese friendship and cultural associations
- Make connections to open the door with foreigners in China
  - The activity may be completely innocent or routine. Or it may be something more devious
  - The indicators are often the same
  - Often played up (or ignored) in the US Press

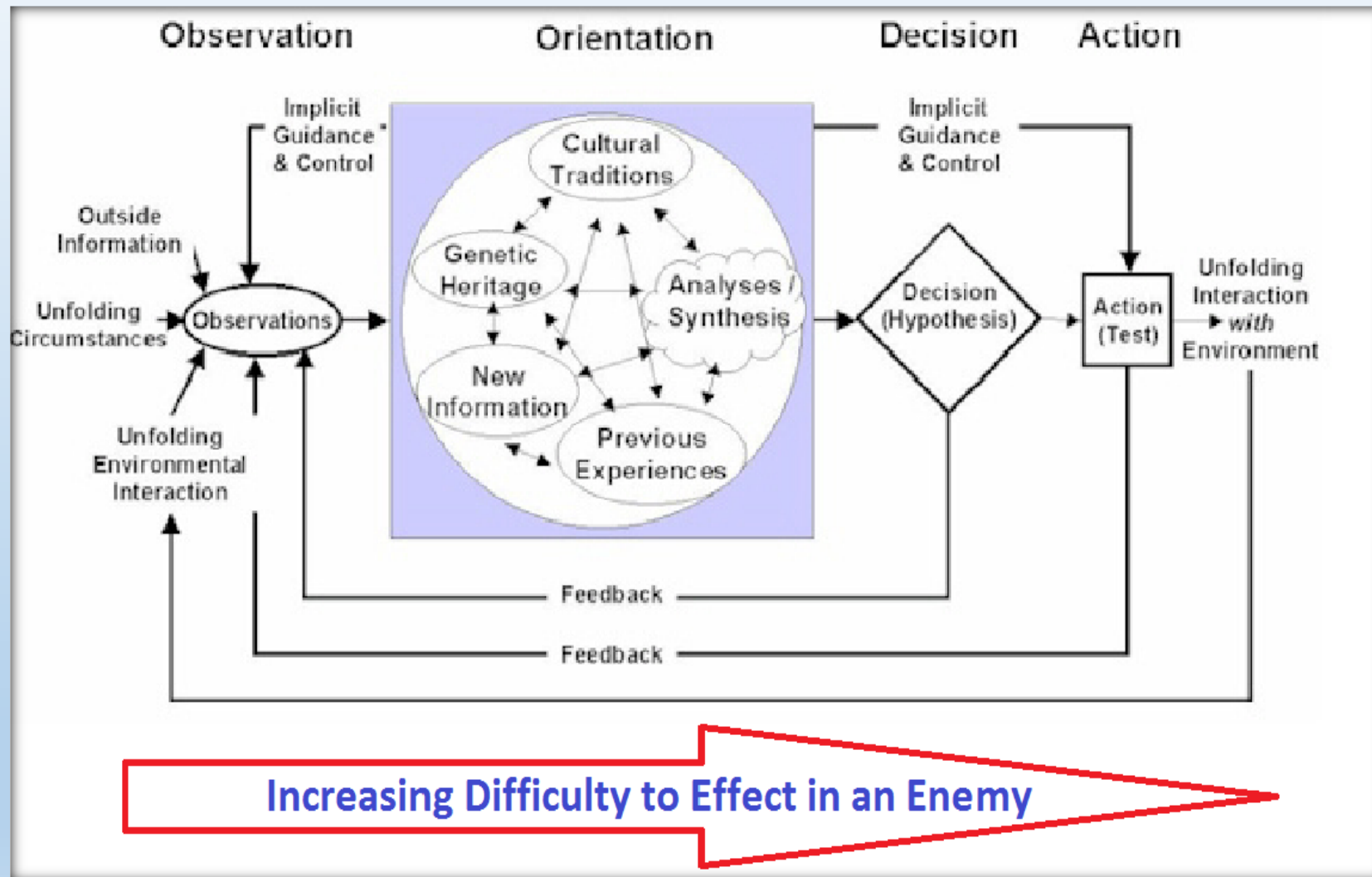
# Influence Operations vs Gaslighting

- **Gaslighting:** A popular term for manipulation to sow doubt in a targeted individuals or groups, to make them question their memory, perception, and sanity
- Both (*Fear of*) & *Gaslighting* can be a form of IO
- The term “Gaslighting” is often used derogatorily to dismiss other views
  - “The Government is *Gaslighting* you when they claim they really landed men on the moon”
  - Reluctance to be perceived as a victim of Gaslighting
- Claims of *Gaslighting* can be an IO tool for **Reinforcing** group & individual perceptions, prejudices & biases
  - Discourage introspection of ones worldview
  - Discourage recognizing other views of a situation
  - Promote conspiracyism about other views & groups
    - ❑ “The CIA wants you to believe we landed on the moon”

# Countering Influence Operations (IO)

1. IO Goal is to promote Fear, Uncertainty & Doubt (FUD)
2. Common IO themes include:
  - Anti-Westernism (particularly anti-Americanism)
  - Conspiracism
3. Biggest Impact is from “secondary circulation” (i.e. proxies and people uncritically posting IO material)
4. Commit to a higher degree of fact-checking rigor when sharing news and information in public forum
5. Apply Critical Thinking tools to the information
6. Ask **Who, What, When, Why & How** on all information
  - Also apply to the source of the information and the author

# OODA LOOP



# Cognitive Security (COGSEC)

COGSEC: Focuses on the exploitation of cognitive biases and social influence of a population and its defenses

1. People are often poor judges of true vs false information
2. Familiar themes or messages can be appealing even if they are false.
  - People want information to support their world view
3. Information overload leads people to take shortcuts in determining the trustworthiness of messages
4. Statements are more likely to be accepted if backed by evidence, even if that evidence is false
5. Peripheral cues—such as an appearance of objectivity—can increase credibility of propaganda.



# Step 1: Changing your Opponents Beliefs

- Choose Your Desired Outcome in the other Person/Group/Population
- Define what you would like to change in the other side. Their:
  - Behavior, Perception, Attitudes, Memories, Decisions, Meta-Programs, Beliefs, Values & Attitudes, etc
- Ask yourself:
  - What goals would I like to achieve in this IW operation?
  - What is it specifically that I would like to change in them?
  - What specific < XXX > of theirs needs to be changed?
  - What < XXX > in my opponents are blocking my goals?

# Step 2: Question Beliefs

- Create doubt upon beliefs from all possible angles
- Get the opponent to question their beliefs:
  - Is this belief really that accurate?
  - Have I always believed this? Why?
  - Was there a time when I didn't believe this? Why?
  - Are there times in some situations when this belief doesn't make sense?
  - What evidence is there that disproves this belief?
  - What's the exact opposite way of thinking about this belief?
  - What's strange about this belief? What's embarrassing about this belief?
  - Is this belief helping them get what want want in life? Will it help them reach their goals?
  - How would others question the validity of this belief? How would they think about it?
  - How does the opposite of what I believe work for other people?
  - What famous quotes/Mems throw doubt upon this belief belief?
  - What are the critical flaws in believing what they believe?

# Step 3: Show Benefits of Changing Belief

- Have them consider the Problems & Consequences of holding onto their beliefs
  - What will the consequences to them be if they don't change this belief?
  - How will not changing affect their life?
  - How will not changing affect them physically? Emotionally? Spiritually? Financially? In their relationships with others?
  - What are the short-term consequences of not changing?
  - What are the potential long-term consequences of not making this change?
  - How will changing this belief make them feel?
  - Explain why is it important to make this change right now
  - Feel the anger, grief, regrets, and pain will have by not changing.

# Critical Thinking - Overview

1. Avoiding oversimplifications of issues
  - There is rarely a single cause of a problem
2. Analyze the meanings of words or phrases used
  - Be cautious of information using emotionally triggering words
  - Memes are a common delivery mechanism
3. Evaluate the credibility of sources of information
  - Where did the information come from? Is it credible?
  - What are the credentials of the person who wrote it?
4. Analyze arguments, interpretations, beliefs, or theories
  - Do they seem logical to a “reasonable & unbiased person”?
5. Be very skeptical of sources that claim to know what the “Other” group believes
  - More often is what the person **Thinks** the “Others” Believe

# Dealing with Cognitive Biases

1. Awareness of one's cognitive biases is the first step towards more accurate conclusions and decisions.
2. consciously explore alternative explanations prior to acting or making decisions.
  1. “considers a range of alternative explanations and outcomes [and] offers one way to ensure that analysts do not dismiss potentially relevant hypotheses and supporting information
  2. employing a ‘key assumptions check,’ which systematically reviews any hypotheses that have been accepted to be true, can ensure that subsequent assessments are not based on faulty premises.[
  3. Other strategies for reducing the effects of cognitive biases include building the best case for an alternative explanation of a strongly held belief through ‘devil’s advocacy,’ considering the ‘unthinkable’ in events with ‘high impact, but low probability,’ or looking at issues from an adversary’s

# Questions to Ask About a Story

<b>Who</b>	<ul style="list-style-type: none"> <li>... benefits from this?</li> <li>... is this harmful to?</li> <li>... makes decisions about this?</li> <li>... is most directly affected?</li> </ul>	<ul style="list-style-type: none"> <li>... have you also heard discuss this?</li> <li>... would be the best person to consult?</li> <li>... will be the key people in this?</li> <li>... deserves recognition for this?</li> </ul>
<b>What</b>	<ul style="list-style-type: none"> <li>... are the strengths/weaknesses?</li> <li>... is another perspective?</li> <li>... is another alternative?</li> <li>... would be a counter-argument?</li> </ul>	<ul style="list-style-type: none"> <li>... is the best/worst case scenario?</li> <li>... is most/least important?</li> <li>... can we do to make a positive change?</li> <li>... is getting in the way of our action?</li> </ul>
<b>Where</b>	<ul style="list-style-type: none"> <li>... would we see this in the real world?</li> <li>... are there similar concepts/situations?</li> <li>... is there the most need for this?</li> <li>... in the world would this be a problem?</li> </ul>	<ul style="list-style-type: none"> <li>... can we get more information?</li> <li>... do we go for help with this?</li> <li>... will this idea take us?</li> <li>... are the areas for improvement?</li> </ul>
<b>When</b>	<ul style="list-style-type: none"> <li>... is this acceptable/unacceptable?</li> <li>... would this benefit our society?</li> <li>... would this cause a problem?</li> <li>... is the best time to take action?</li> </ul>	<ul style="list-style-type: none"> <li>... will we know we've succeeded?</li> <li>... has this played a part in our history?</li> <li>... can we expect this to change?</li> <li>... should we ask for help with this?</li> </ul>
<b>Why</b>	<ul style="list-style-type: none"> <li>... is this a problem/challenge?</li> <li>... is it relevant to me/others?</li> <li>... is this the best/worst scenario?</li> <li>... are people influenced by this?</li> </ul>	<ul style="list-style-type: none"> <li>... should people know about this?</li> <li>... has it been this way for so long?</li> <li>... have we allowed this to happen?</li> <li>... is there a need for this today?</li> </ul>
<b>How</b>	<ul style="list-style-type: none"> <li>... is this similar to _____?</li> <li>... does this disrupt things?</li> <li>... do we know the truth about this?</li> <li>... will we approach this safely?</li> </ul>	<ul style="list-style-type: none"> <li>... does this benefit us/others?</li> <li>... does this harm us/others?</li> <li>... do we see this in the future?</li> <li>... can we change this for our good?</li> </ul>

# SenseMaking

ELO: Given information about a situation, Marines will identify the relevant perspectives within it, clearly articulate the motives associated with each, and then use these to justify specific actions taken in that situation

## SUB-SKILL PERFORMANCE CRITERIA



### **Empathetic**

Demonstrates understanding of the thoughts/emotions of others

**Supports interactions:** Understanding others' thoughts and emotions help Marines work tactfully and tactically with other people



### **Reasoned**

Correctly accounts for uncertainty and own biases

**Supports readiness:** Taking into account your uncertainty and bias supports accurate inferences about others' behavior



### **Adjustable**

Updates interpretations as actions and events evolve

**Supports adaptation:** Correctly taking perspective requires you to recognize that people's motivations are dynamic

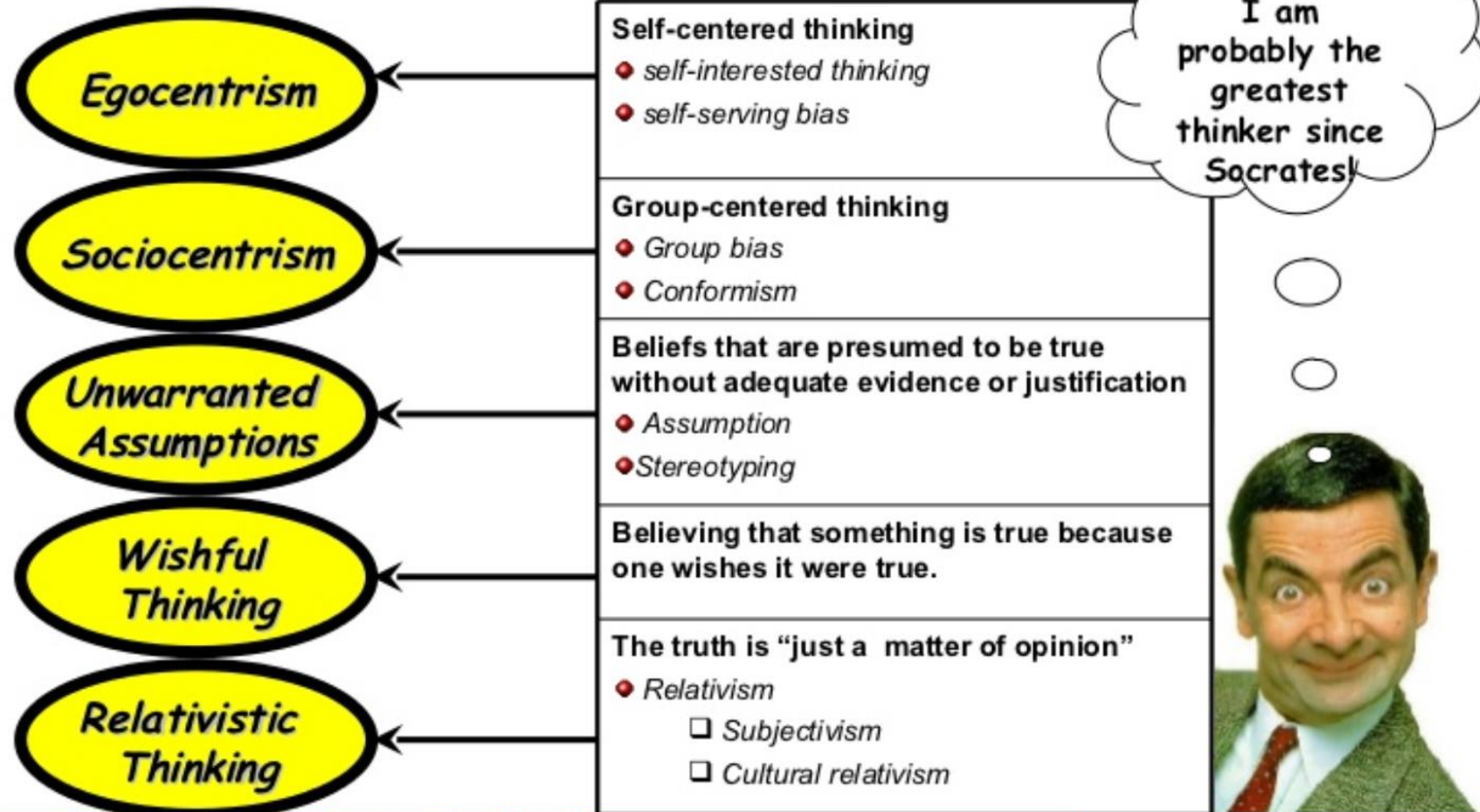
## TRAINING BENEFITS

- Supports understanding the motives of others
- Increases overall understanding of the environment
- Improves social interactions
- Provides a basis for estimating future behavior

# Barriers to Critical Thinking

## 1.6 Barriers to Critical Thinking

Five **Powerful Barriers** to Critical Thinking:





# Critical Thinking - Challenges

- Egocentricity: Confusing what we see and think with reality
  - An inability or unwillingness to consider others' points of view
  - "Group think" results when people egocentrically attach themselves to a group. Confuse loyalty with always supporting and agreeing, even when the other person or the group is wrong.
- Become aware of our own tendency to confuse our views with "The Truth"
  - Our Shadow: Project our fears onto others
- Able to consider the strengths and weaknesses of opposing points of view
  - To put ourselves in the place of others in order to genuinely understand them
  - This ability to accurately reconstruct the viewpoints and reasoning of others and to reason from assumptions, and ideas other than our own
- At least be willing to acknowledge this is their perception of reality & will likely behave in certain ways based upon it
  - The 1<sup>st</sup> step in countering their behavior

# Critical Thinking

1. It is natural to seek to simplify problems and experiences to make them easier to deal with
  - People often oversimplify & as a result misrepresent problems and situations
  - Complex, intricate, ambiguous, or subtle issues are often viewed as simple, elementary, clear, and obvious
2. Use reliable sources of information
  - Give less weight to sources which lack a track record of honesty, are not in a position to know, or have a vested interest in the issue
  - Understand the Authors agenda & goals
3. Recognize when there is more than one reasonable position to be taken on an issue
  - Compare alternative sources of information, noting areas of agreement
  - Determine whether or not the source is in a position to know
  - Gather more information when sources disagree
4. Recognize the difference between facts relevant to an issue and those which are not

# Analyze the Information Presented

Commonly Socratic Questioning can be split into 6 different categories of questions:

## 1. Clarify The Thought Process

- “Why do you say that?”
- “Could you explain further?”

## 2. Challenge Assumptions

- “Is this always the case?”
- “Why do you think that this assumption holds here?”

## 3. Explore the Evidence or Referential Basis for The Argument

- “How do you know that?”
- “Why do you say that?”
- “Is there reason to doubt this evidence?”

## 4. Explore Alternative Viewpoints and Perspectives

- “What is the counter argument for ... ?”
- “Can/did anyone see this another way?”

## 5. Explore the Implications and Consequences

- “But if...happened, what else would result?”
- “How does...affect...?”

## 6. Question the Question

- “Why do you think that I asked that question?”
- “Why was that question important?”
- “Which of your questions turned out to be the most useful?”



# Challenging Disinformation

So how do you challenge people's wonky logic?

The most effective methods rely on:

- > framing messages that align with the values of the person you are talking to,
- > keeping facts simple (and simpler than the statements of faulty logic),
- > keeping your arguments free from your own emotional biases,
- > talk about the outcomes of research, not the processes,
- > Referring to spokespeople those you are talking to trust, and
- > using pictures and graphs to reinforce a factual argument.

It also helps to be respectful of other people, particularly of their values, and to allow yourself to learn from other people's perspectives, all the while keeping a watchful eye on logic and evidence.

# MetaModeling of Information

1. The meta-model is a set of questions designed to challenge and expand a person's model of the world
2. The Meta Model
  1. Listen carefully to what is said/presented
  2. Construct a representation in your mind based on what was presented
  3. Ask yourself: What's missing? What or who is being limited? What just doesn't make sense?
3. The Secret of General Modeling is:
  1. Listen to and look closely at everything they present
  2. Form a tentative model/hypothesis about what they intend you to perceive
  3. **Ask yourself:** What is missing? What info is needed to make this reasonable? Is this enough information to understand the other persons perspective?

# MetaModeling of Information

## THE META MODEL

<i>Pattern</i>	<i>Response</i>	<i>Prediction</i>
<b>DISTORTIONS</b>		
1. <b>Mind Reading:</b> Claiming to know someone's internal state. Ex: "You don't like me."	"How do you know I don't like you?"	Recovers Source of the Info.
2. <b>Lost Performative:</b> Value judgments where the person doing the judging is left out. Ex: "It's bad to be inconsistent."	"Who says it's bad?" "According to whom?" "How do you know it's bad."	Gathers evidence. Recovers source of the belief, the Performative, strategy for the belief.
3. <b>Cause—Effect:</b> Where cause is wrongly put outside the self. Ex: "You make me sad."	"How does what I'm doing cause you to choose to feel sad?" (Also, Counter Ex., or "How Specifically?")	Recovers the choice.
4. <b>Complex Equivalence:</b> Where two experiences are interpreted as being synonymous. Ex: "She's always yelling at me, she doesn't like me."	"How does her yelling mean that she..?" "Have you ever yelled at someone you liked?"	Recovers Complex Equivalence. Counter Example.
5. <b>Presuppositions:</b> Ex: "If my husband knew how much I suffered, he wouldn't do that." There are 3 Presuppositions in this sentence: (1) I suffer, (2) My husband acts in some way, and (3) My husband doesn't know I suffer.	(1) "How do you choose to suffer?" (2) "How is he (re)acting?" (3) "How do you know he doesn't know?"	Specify the choice & the verb, & what he does. Recover the Internal Rep., and the Complex Equivalence
<b>GENERALIZATIONS</b>		
6. <b>Universal Quantifiers:</b> Universal Generalizations such as all, every, never, everyone, no one, etc. Ex: "She never listens to me."	Find Counter Examples. "Never?" "What would happen if she did?"	Recovers Counter Examples, Effects, Outcomes.
7. <b>Modal Operators:</b> a. <b>Modal Operators of Necessity:</b> As in should, shouldn't, must, must not, have to, need to it is necessary. Ex: "I have to take care of her." b. <b>Modal Operators of Possibility:</b> (Or Impossibility.) As in can/can't, will/won't, may/may not, possible/impossible. Ex: "I can't tell him the truth."	a. "What would happen if you did?" ("What would happen if you didn't?" Also, "Or?" b. "What prevents you?" ("What would happen if you did?")	Recovers Effects, Outcome. Recovers Causes
<b>DELETIONS</b>		
8. <b>Nominalizations:</b> Process words which have been frozen in time, making them nouns. Ex: "There is no communication here."	"Who's not communicating what to whom?" "How would you like to communicate?"	Turns it back into a process, recovers deletion, and Ref. Index.
9. <b>Unspecified Verbs:</b> Ex: "He rejected me."	"How, specifically?"	Specifies the verb.
10. <b>Simple Deletions:</b> a. <b>Simple Deletions:</b> Ex: "I am uncomfortable." b. <b>Lack of Referential Index:</b> Fails to specify a person or thing. Ex: "They don't listen to me." c. <b>Comparative Deletions:</b> As in good, better, best, worst, more, less, most, least. Ex: "She's a better person."	a. "About what/whom?" b. "Who, specifically, doesn't listen to you?" c. "Better than whom?" "Better at what?" "Compared to whom, what?"	Recovers Deletion. Recovers Ref. Index. Recovers Comparative Deletion.

# Cognitive Warfare vs Magic

1. ***AWARENESS IS NOT ABOUT A 40-, 60-, OR 90-MINUTE TRAINING PROGRAM ONCE A YEAR. IT'S ABOUT CREATING A SET OF STANDARDS AND A WAY OF THINKING THAT IS USED ALL THE TIME.***

# Cognitive Warfare vs Magic

1. IO often is sometimes referred to as “magic”
  - **ARTICLE: Magic Weapons: China's political influence activities under Xi Jinping**
2. Both often work at the subconscious level
3. Influence Operations is an *Information Magical Model* for implementing social & political change
  - **Have strong NLP basis**
4. The Future (Magical & Mundane):
  1. **“Technologies” to change opinions, reasoning, and behavior**
    - Use human-computer interaction, cyberpsychology, and decision neuroscience.
  2. **Microtargetting to develop a demographic & psychological profile and tailoring the message accordingly**
  3. **Persuasion, emotion, and trust will become design criteria**