



Informing Science: the International Journal of an Emerging Transdiscipline

*An Official Publication
of the Informing Science Institute
InformingScience.org*

Inform.nu

Volume 24, 2021

CREATED REALITIES: A MODEL

Eli Cohen

Informing Science Institute,
Santa Rosa, CA, USA

EliCohen@InformingScience.org

ABSTRACT

Aim/Purpose	The purpose of this paper is to provide a model to help explain why ideas about reality differ.
Background	Misinformation is an important topic that in the past several years has gained prominence. The author developed a model of informing.
Methodology	The methodology is model extension and creation, in this case to extend an existing model of informing so as to accommodate disinformation.
Contribution	The principal contribution is providing, perhaps, the first model that explains how differing beliefs of reality are created. It also introduces the concept of created reality.
Recommendations for Researchers	The model can be applied to a variety of situations to assist researchers in understanding created realities.
Impact on Society	The paper extends our understanding of how and why different people understand and believe reality differently.
Future Research	We recommend that researchers across the disciplines test and build on this model of created realities.
Keywords	created realities, misinformation, disinformation, fake news, beliefs, informing

OVERVIEW

If you ask 100 people about their opinion on almost any topic, you will find various beliefs about what they believe. Some beliefs will be based on facts, and some will be based on misinformation and disinformation. Such beliefs make up one's sense of reality.

Long ago, all those living in a small community saw and heard the same things. But today, with numerous sources of information, we each choose which information sources we attend. Some of those sources are based on facts, while others are artificial, based on misinformation and disinformation.

Accepting Editor Grandon Gill | Received: January 21, 2021 | Revised: May 15, 2021 | Accepted: May 18, 2021.

Cite as: Cohen, E. (2021). Created realities: A model. *Informing Science: The International Journal of an Emerging Transdiscipline*, 24, 31-48. <https://doi.org/10.28945/4800>

(CC BY-NC 4.0) This article is licensed to you under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/). When you copy and redistribute this paper in full or in part, you need to provide proper attribution to it to ensure that others can later locate this work (and to ensure that others do not accuse you of plagiarism). You may (and we encourage you to) adapt, remix, transform, and build upon the material for any non-commercial purposes. This license does not permit you to use this material for commercial purposes.

“The past year has taught us that disinformation will be one of the most significant and pervasive challenges of the digital era,” writes Maya Villaseñor (2021). This paper explores why we have different concepts about what is true and uses a model to explain this phenomenon.

Alternative understandings of reality have made headlines recently regarding politics, but it is far from new. Hannah Arendt (1973) wrote some 70 years ago that opinion, not truth, is the foundation of democratic decision-making. And the key to controlling opinions is propaganda, Lasswell (1927) noted nearly a century ago. He wrote that propaganda, particularly using rumor and pictures, manipulates and mobilizes communities against an enemy. Some propaganda is based on disinformation. In recent years, we have seen disinformation used to create fake realities, e.g., Cassidy (2020).

This paper aims to comprehend disinformation and propaganda considering the E. Cohen (2019) framework. That paper looked at a single speech reported on in various ways and created a model to explain this phenomenon. This paper expands on that model’s explanatory power by showing how it can be used when there are multiple and even contradictory information sources. This paper encapsulates and puts in perspective others’ research on what is commonly called fake news in light of the model to understand how different realities are created by people.

The history over the past century bears witness to the truth of Arendt and Lasswell’s statements that truth cannot overcome the effect of propaganda and disinformation. This paper explores an explanation for why.

MISINFORMATION, DISINFORMATION, PROPAGANDA, AND “FAKE NEWS”

“The universe of ‘fake news’ is much larger than simply false news stories. Some stories may have a nugget of truth but lack any contextualizing details. They may not include any verifiable facts or sources. Some stories may include basic verifiable facts but are written using deliberately inflammatory language, leaves out pertinent details, or only presents one viewpoint. ‘Fake news’ exists within a larger ecosystem of mis- and disinformation” (Desai et al., 2020).

Claire Wardle (2017) also rejects the term “fake news.” She created the following matrix (Figure 1) to show the different types of misinformation and disinformation.

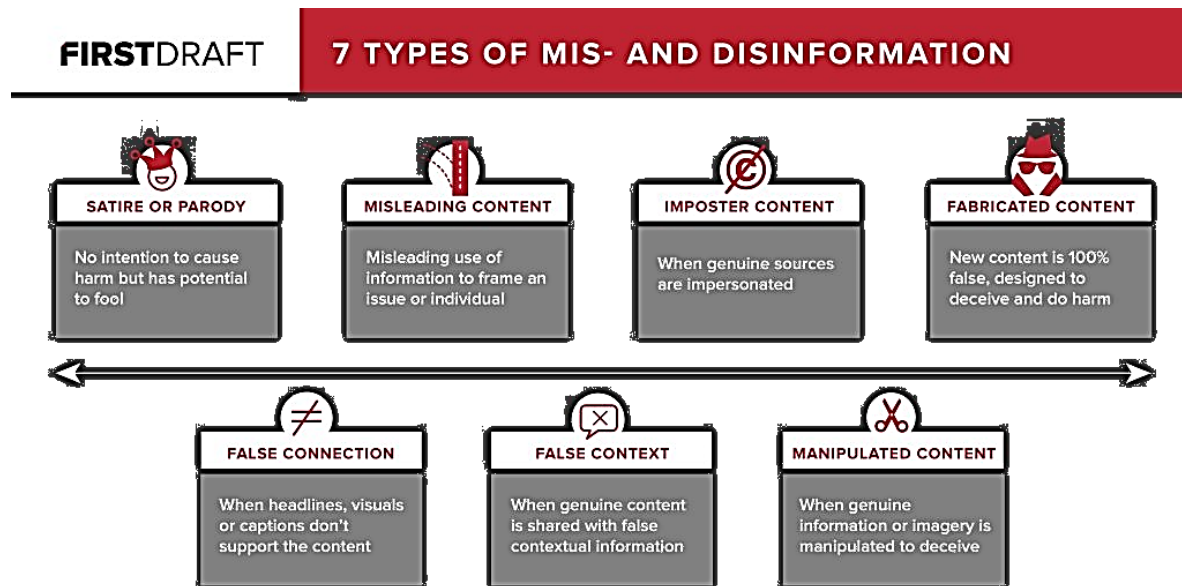


Figure 1. 7 Types of Misinformation and Disinformation (Source: Wardle, 2017)

As noted in Figure 1, disinformation is more than reporting as true that which is not true. It often contains some kernels of truth (Ellick & Westbrook, 2018). Lejla Turcilo and Mladen Obrenovic (2020) note that disinformation, while not new, is used to attack democracies. It came into great use in recent centuries, particularly during World War II. All types of propaganda were perfected in Russia (see E. Cohen & Boyd, 2019), where it was used both against its own population and to influence world events and opinions against democracy. The impact of mass media and now social media makes it easier to mislead with false information. Pomerantsev (2014) titled his book on Russian Propaganda “Nothing is true and everything is possible” to denote that Russian leaders and those of other countries can create chaos through promoting falsehoods as true so that people no longer know what to believe. Chaos as to what is true enables the creation of alternative realities.

Historically, the main supplier of disinformation is Russia, but other countries now do the same, e.g., Rawnsley (2021). Sokoloski (2021) writes that a Russian organization has flooded social media, particularly Parler, with false assertions, pretending to be coming from personal accounts of “US citizens, larger social and public social media, and US political and grassroots organizations.” Russian disinformation includes “assertions that mail-in voting amounts to fraud, that left-wing activists somehow infected President Trump with the coronavirus, and that Joe Biden is a ‘sexual predator.’” Sokoloski continues, “These are all part of a continuing effective Russian disinformation campaign run by the IRA and infiltrating all conservative right-wing media.”

“You’re seeing the complete collapse of reality,” said Christopher Guess (cited in Tardáguila & Mantas, 2021), lead technologist at the Duke Reporters’ Lab, when asked if the Capitol breach [of January 2021] had any connections with misinformation. “You’ve got people arguing for a worldview that Joe Biden is not the president.”

Similarly, Stern (2021) writes, “People are shown things [on social media] that appeal most to them, they click, they read, they watch, they fall into rabbit holes that reinforce their thoughts and ideas, they connect with like-minded people. They end up in their own personalized version of reality. They end up inside the US Capitol [as part of the attempted insurrection].”

For more on this topic, see, e.g., Ariely and Jones (2008), Brafman and Brafman (2008), Henry (2019), Jowett and O’Donnell (2018), Rabin-Havt (2016), and Thompson (2008).

Let us consider two examples of the creation of alternative realities that relate to the normalization of fascism, that is, the attempts by a charismatic authoritarian leader to split the population into “us” and “them” (nationalism) by creating a false sense of history.

Created Reality: Example 1

In the US, various investigators, including the Federal Bureau of Investigation, and courts found no evidence of significant voter fraud in the US 2020 presidential election. Yet, a good portion of the American voters believes [in December 2020] that Donald Trump won the 2020 election. (Rose, 2020; see also D. Cohen, 2021). “At least 86 judges have rejected claims by President Trump or his supporters in election lawsuits” (Weiss, 2020). This belief led to the attempted insurrection of January 6, 2021. Prior to that attempt, 48% of Republican voters in US believed that Trump **will be** sworn in as President in 2021, not just that he should be (Seidel, 2020). According to C. Kim (2020), 70 percent of Republicans think the election was not free and fair despite fact-checking. Days after the storming of the US Capitol on January 6, 2021, an NPR/PBS NewsHour/Marist poll showed that 8 in 10 of those who consider themselves Republicans do not believe that the results of the 2020 election were accurate (Marist Poll, 2021).

A large element of this disconnect is due to a billion-dollar disinformation campaign to reelect Donald Trump as President of the USA (Coppins, 2020). While the research by Benkler et al. (2020) concluded the greatest source of disinformation about voter fraud came from President Trump, Marcelino et al. (2020) also found credible evidence of foreign interference in the 2020 election. Indeed, Posard et al. (2020) describes Russian interference in the 2020 US Election. OAN, a channel known

for promoting falsehoods and conspiracy theories, shows disinformation as if Mr. Biden weren't President at all (Peters, 2021)

Many Trump supporters believe QAnon and other conspiracy theories. An NPR/Ipsos poll, cited in Rose (2020), asked respondents if they believe that "a group of Satan-worshipping elites who run a child sex ring are trying to control our politics and media." Over half of Americans believe that it could be true. According to the survey by the American Enterprise Institute cited in Sales (2021), "29% of Republicans believe the baseless claim that former President 'Donald Trump has been secretly fighting a group of child sex traffickers that include prominent Democrats and Hollywood elites."

In part, this is because Russia has been using social media to boost and amplify belief by Americans in QAnon's conspiracy theories (Menn, 2020a; 2020b). According to a joint report issued by the CIA, FBI, and NSA (United States Senate, 2020), we know that Russia expended great effort to elect Trump in 2016. In 2014, General Philip Breedlove, NATO's military alliance's top commander, declared that Russia is waging "the most amazing information warfare blitzkrieg we have ever seen in the history of information warfare" (cited in Pomerantsev, 2014). The Russian campaign against democracy is not new, as seen through the next example of a created reality.

A second created reality: Example 2:

The KGB's official warfare against democracy is more than 50 years old. E. Cohen and Boyd (2019) and Izabella Tabarovsky (2019) describe an extraordinarily successful Russian disinformation campaign that began in the 1960s to destabilize the only democracy in the middle east, Israel. The KGB campaign named Operation SIG recruited and prepared the leadership of the PLO (Arafat and Abbas), training them both in guerilla war and in the use of highly developed disinformation techniques. Abbas is now in the 17th year of his four-year term.

(It is interesting to note that while many have traced Trump's connection to Russia over 30 years, e.g., Dorell, 2017, ex-KGB spy Major Yuri Shvets (cited in D. Smith, 2021) claims that Russia cultivated Trump as an asset for over 40 years. Smith also notes that Craig Unger, author of *American Komprat*, that "around 1980, the Russians were trying to recruit like crazy and going after dozens and dozens of people.")

One element of the disinformation campaign can be called "truth decay." It involved creating disinformation about Palestinian history and the PLO leaders' desire and successor regimes for peace with the Jewish state. As in the case of Trump, many of the PLO supporters believe this disinformation.

KGB-inspired tactics include the following: planting misinformation, disinformation, and false narratives with unknowing assistants, journalists, and willing world bodies to gain sympathy and believability for their cause.

In this case, the leadership of the Palestinian Authority focuses on promulgating disinformation against the Jewish state. In a recent example, James Zogby and Ayman Mohyeldin (Mohyeldin, 2020) claimed that Israel refused to vaccinate Arabs under PA control. Without vetting these allegations' truth, news outlets blamed Israel (Hendrix & Rubin, 2020; Krauss, 2020). However, the Palestinian leadership alone is responsible for all healthcare under the Oslo Accords, and Israel is prohibited from doing so. The Oslo 1995 Interim Accords, Article 17 clearly states that the Palestinian side *agrees to vaccinate their population* as part of their commitment to Israel. Yet, the Palestinian leadership did not even ask Israel for help (Bybelezer, 2020.) Nonetheless, this falsehood was picked up and amplified by the New York Times, the Washington Post, CNN, and then reprinted in other local papers, according to Sternthal (2020a, 2020b). Such disinformation serves the Palestinian leader's desires in the Palestinian Authority and Hamas to prevent peace between the Palestinians and Israel (Miller, 2021).

Only in 2021 did the PA Ministry of Health finally request Israeli dosages of the vaccine (Abu Toameh, 2021). However, the Fatah-controlled PA still has failed to ask for vaccine dosages delivery to Hamas control Gaza (Harkov, 2021b).

Israel was already vaccinating Palestinians living in east Jerusalem. While they are not citizens, their healthcare falls under Israel's purview per the Oslo Accords (Harkov, 2021a).

The intersection of Russian disinformation campaigns with Trumpism and the PLO/Hamas Propaganda

Igor Yakovenko, a journalism professor at the Moscow State Institute of International Relations, writes, "If previous authoritarian regimes were three parts violence and one-part propaganda, this one [referring to Putin's] is virtually all propaganda and relatively little violence. Putin only needs to make a few arrests—and then amplify the message through his total control of television" (cited in Pomerantsev, 2014). In Example 1, we see this is the actions of Trump and his allies. Example 2 also promulgates falsities, such as that Jesus was not a Jew but a Palestinian Arab. This deception is repeated and amplified even by US Congresswoman Ilhan Omar, and the Black Lives Matter head Linda Sarsour (Frantzman, 2019). Lies like these come not only from the PLO and Hamas but also from the Nation of Islam. Lubbock (2020) writes that Russia amplifies the Nation of Islam's anti-semitism.

Nowadays, Russia and other bad actors need to disseminate only a few hundred carefully planted lies on social media, and the message is repeated by the gullible. Pomerantsev (2014) writes that the Russians do not care if they are caught in a lie. They care only about their lies producing results. Pomerantsev writes, "But there is one great difference between Soviet propaganda and the latest Russian variety. For the Soviets, the idea of truth was important—even when they were lying, Soviet propaganda went to great lengths to 'prove' that the Kremlin's theories or bits of disinformation were fact."

A result of disinformation and propaganda is a loss of a common sense of reality. Different people view reality differently (E. Cohen, 2020). Let us now look at why this is the case.

PERCEPTION OF REALITY

As we have seen above, in the minds of different people exist different senses of reality. Modern media has made this reconstruction of reality more prevalent (Weimann, 2000).

As noted earlier, Stern (2021) wrote, "People are shown things [on social media] that appeal most to them, they click, they read, they watch, they fall into rabbit holes that reinforce their thoughts and ideas, they connect with like-minded people. They end up in their own personalized version of reality. They end up inside the US Capitol [in the insurrection]".

This paper explores the modeling of reality or realities from a psychological view. It also helps us understand post-modernists' philosophical view that facts do not exist, only interpretations, that is, alternative views of reality (Aylesworth, 2015).

BUILDING ON THE M-C-B MODEL

E. Cohen (2020) explored the issue of why different people perceive *identical* information differently. That paper makes a case for a person constructing their own sense of reality. It advances a case that a moderator exists in the brain that filters and weighs the various messages that reach people. Cohen names this moderator for messages Cognitive Message Processor. In contrast, this paper expands on that work by exploring how different people self-select different information sources.

Cohen's model falls in the class of Stimulus-Organism-Response, or S-O-R, Models. (For more on the SOR model, see, for example, M. J. Kim et al., 2020.) For this reason, the model is called the M-

C-B model for Messages – Cognitive Message Processing – Beliefs. As in other S-O-R models, the brain is the moderator; here, messages serve as the stimuli.

The paper now provides an overview of the M-C-B model.

The simplest illustration of the M-C-B model is shown in Figure 2. Messages enter the black box that is in the human brain and result in the development of beliefs. By message, we are not assuming an accurate representation of reality. Messages include those based on facts and on non-facts: misunderstandings, fabrication, rumors, stories, and dishonesties, to name a few. The black box provides the message processing.

Figure 3 diagrams the Cognitive Message Processor in the brain as a black box.



Figure 2. The M-C-B Model. Cognitive Message Processing takes place in the brain.

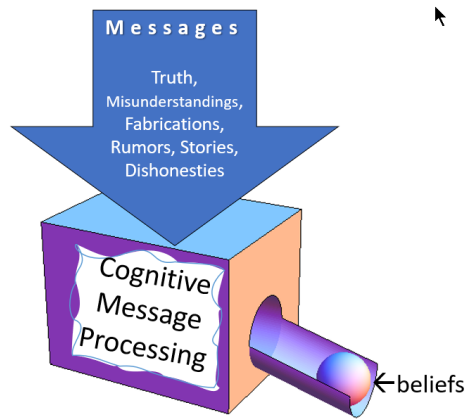


Figure 3. The moderator between messages and beliefs in the M-C-B Model is the Cognitive Message Processor. Messages affect beliefs based on the current state of the Cognitive Message Processor.

Extending the M-C-B Model's Scope

The diagrams above are a simplification of the model proposed by E. Cohen (2020). That paper demonstrated a model that explained why different people, upon encountering a single message source, come away with different beliefs. That paper used headlines in various news sources reporting on the single event of Donald Trump's remarks to a reporter.

This paper goes beyond that Cohen paper by showing that the model can also be applied to where different people choose to view different information as the truth.

People are confronted by numerous sources of information, such as newspapers, television, radio, social media sites, the web, and talking with others. But we do not and cannot attend to them all. This is illustrated in Figure 4.

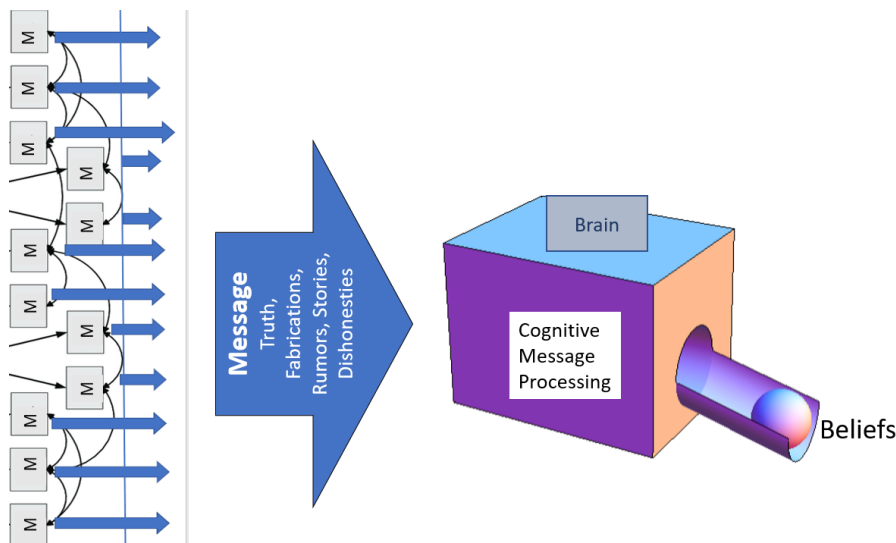


Figure 4. An individual is confronted with an array of message sources. The message sources often rely on one another. We select which ones to attend.

As noted above, people cannot attend to all information sources. People need to select which sources to monitor. Below, the paper discusses how people select their preferred information sources.

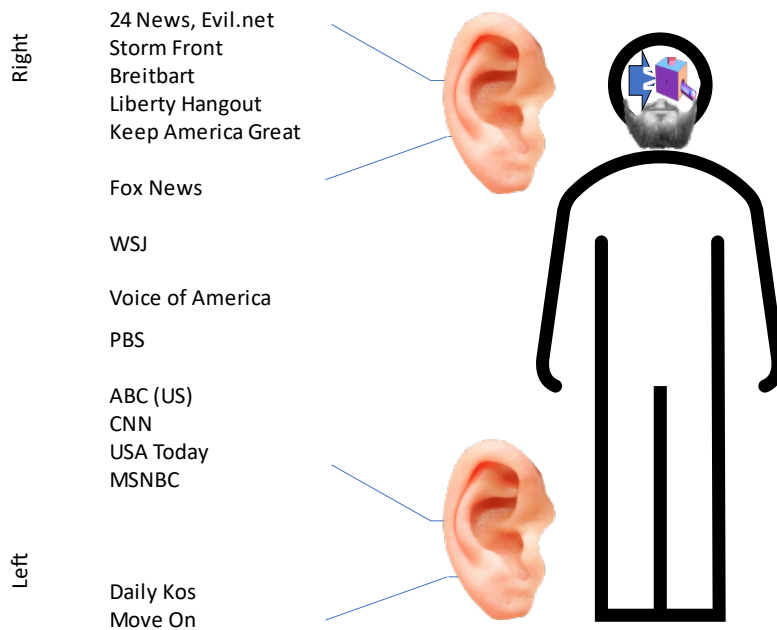


Figure 5. Different people attend to different message sources. The ear on the top illustrates a person who attends to right-wing to extreme right-wing sources primarily, while the ear on the bottom illustrates a person who attends primarily to left-wing to far-left sources.

Figure 5 shows two different people, each attending to their own non-overlapping sources. The ear represents hearing and seeing and all other senses; the sources include those listed and all sources of messages, including friends, Facebook, and more. People select which message sources they attend based on their current position on such dimensions, as explained below. This is known as affirmation bias and can lead to a political echo chamber (see, e.g., Barberá et al., 2015). Benkler et al. (2018) refer to such situations as propaganda feedback loops.

Figure 5 shows some sources of information on a single dimension, left-wing to right-wing bias. This is a simplification in terms of its dimensionality. Messages can be categorized on multiple dimensions. Messages sources vary not only on the left to right bias but also on truthfulness/factuality and the degree to which they choose to repeat conspiracies or pseudoscience, according to MediaBiasFactCheck.com. This is illustrated in Figure 6.

For example, in prior years, the Voice of America had been rated least biased on the left to right-wing dimension, mostly truthful, and low on the conspiracy/pseudoscience dimension. It and all other sources can be represented as a dot in the cube.

Representing this as a cube assumes that these three dimensions are non-orthogonal. Most likely, they are not. Additional research will determine the true shape.

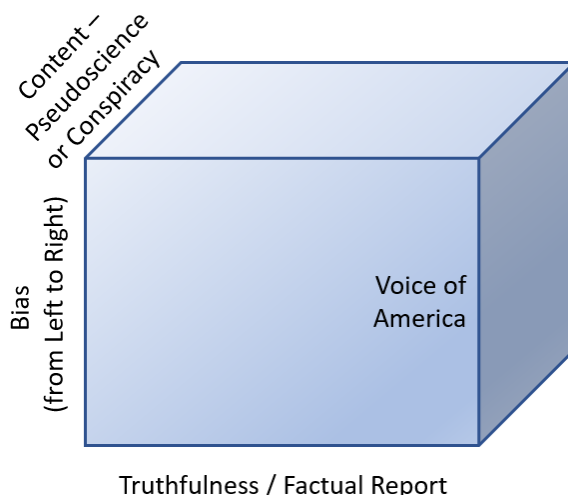


Figure 6. Messages sources vary not only on the left to right bias but also on truthfulness/factuality and the degree to which they choose to repeat conspiracies or pseudoscience, according to MediaBiasFactCheck.com.

The question remains, why some people prefer to attend to left-wing biased information sources while others prefer the opposite. The paper now addresses that question.

INFLUENCES ON SELF-SELECTION OF SOURCES FOR MESSAGES

This section describes some reasons why people choose and believe the message sources that they do.

Bias

A great deal has been written about bias. E. Cohen (2020) provides an overview of bias in messages and message selection. For that reason, this paper will merely mention the types of cognitive bias that affect how people believe. Most important for this paper is *confirmation bias* and *conservatism bias*. Confirmation bias refers to the tendency to attend primarily to information that confirms our preconceptions (see, for example, Nations, 2019). Conservatism bias makes it hard to change our views; people favor prior evidence over new evidence, for example, consider birtherism (Serwer, 2020)

Beyond Bias: People Differ on Preferences and Values

Notice that some people like hip-hop music and hate opera. Others prefer just the opposite. Some people enjoy both styles of music and some like neither. Such differences can be best described as styles or preferences (see, e.g., Sadler-Smith & Riding, 1999).

Not well explored in this context are *values*. To clarify that values often differ, see Table 1. In any group, few people will rank-order the values on this list in the table the same. This list gives only a few of the many values people hold in real life. Consider how one person may value an embryo's right to live over the mother's right to control her own body. This is not a case of right vs. wrong, but of rights vs. rights—more to the point, weighing one value over another. We shall see that values correlate with political preferences.

Table 1. A Simple example of how different people's values can differ.

Select the 10 most important items from the following list.

Rank them from 1-10, with "1" being the most important item. (Source: Therapist Aid, n.d.)

- | | |
|---|---------------------------------------|
| <input type="checkbox"/> Love | <input type="checkbox"/> Honesty |
| <input type="checkbox"/> Wealth | <input type="checkbox"/> Humor |
| <input type="checkbox"/> Family | <input type="checkbox"/> Loyalty |
| <input type="checkbox"/> Morals | <input type="checkbox"/> Reason |
| <input type="checkbox"/> Success | <input type="checkbox"/> Independence |
| <input type="checkbox"/> Knowledge | <input type="checkbox"/> Achievement |
| <input type="checkbox"/> Power | <input type="checkbox"/> Beauty |
| <input type="checkbox"/> Friends | <input type="checkbox"/> Spirituality |
| <input type="checkbox"/> Free Time | <input type="checkbox"/> Respect |
| <input type="checkbox"/> Adventure | <input type="checkbox"/> Peace |
| <input type="checkbox"/> Variety | <input type="checkbox"/> Stability |
| <input type="checkbox"/> Calmness | <input type="checkbox"/> Wisdom |
| <input type="checkbox"/> Freedom | <input type="checkbox"/> Fairness |
| <input type="checkbox"/> Fun | <input type="checkbox"/> Creativity |
| <input type="checkbox"/> Recognition | <input type="checkbox"/> Relaxation |
| <input type="checkbox"/> Nature | <input type="checkbox"/> Safety |
| <input type="checkbox"/> Popularity | |
| <input type="checkbox"/> Responsibility | |

Political Preferences and Values

Values clarification was developed to help people understand their own values and how they affect one's decisions. Values are inculcated from an early age by the actions of parents, teachers, workplaces, and religious institutions (Simon et al., 1972). The field of values clarification was critiqued by Stewart (1975) and Kirshenbaum et al. (1977). It helps people understand themselves and others in their relationships with family, friends, aging and death, work and leisure.

The idea of values clarification can be applied directly to political preference. The Pew Research Center (2019) found that party affiliation surprisingly is much more important when determining a person's values than race, religion, education, age, or gender. The greatest difference between Republicans and Democrats in the US are, in order, attitudes toward gun policy, race, climate and environment, social safety net, and immigration.

The issue of political preference is more complex than just left- or right-wing party affiliation. 8values (n.d.) uses a 70-item questionnaire to measure values on four different political values: economic, diplomatic, civil, and societal. The four dimensions are described below:

- Economic: *equality* (progressive tax codes, social programs, and, at the higher end, socialism) vs. *markets* (lower taxes, privatization, deregulation, and, at the higher end, laissez-faire capitalism)
- Diplomatic: *nation* (patriotic and nationalist) vs. *world* (cosmopolitan and globalist)
- Civil: *liberty* (Those who support strong civil liberties tend to support democracy and oppose state intervention in personal lives.) vs. *authority* (Those supporting strong authority tend toward wanting strong state power, and support government intervention into personal lives.)
- Societal: *tradition* (strict adherence to a moral code, usually religious, and support the status quo) vs. *progress* (believe in social change and rationality, usually secular or atheist, and support environmental action and scientific or technological research).

AltValues (n.d.) is a modification of the 8Values. It uses 58 questions to plot one's political position. It produces a measure across 9 dimensions. The dimensions are the following: social, economic, worldview (both essence and moral), universalism vs. particularism, ecological, social politicization, religious, and historic vs. futuristic reference.

Thus, values play a large role in why people select which message sources to which to attend. But another and different question is, why do some messages elicit a greater impact than others? Why are some stories read and others ignored? The paper now turns to Cognitive Consistency and Message Resonance to answer those questions.

Cognitive consistency, motivated reasoning, and relationships

One can better understand what leads people to adopt beliefs by examining a few psychology theories, such as cognitive consistency or dissonance, homophily, and motivated reasoning.

Cognitive Dissonance. Festinger's 1962 cognitive dissonance theory helps us to understand why some messages have a greater impact on our beliefs than do others. Festinger et al. (1956) report on a doomsday cult that predicted a flood that would end the world, which was to be caused by space aliens. Believers of the cult thought they would be "taken:" evacuated to a spaceship before the calamity as a reward for their being faithful.

When the calamity did not happen, the cult leader said she received transmissions from outer space that God saved the entire world because of the cult's faith. At that point, some cult members, those who were not with the leader at the doomsday experience, drifted away due to cognitive dissonance. In contrast, those with the leader resolved their cognitive dissonance by proselytizing, seeking to persuade others of the truth of their beliefs. The believers who proselytized created for themselves cognitive consonants.

This bizarre conviction is not unlike that of the modern-day adherents to QAnon who believe that Satan-worshipping pedophiles, including Democrats, politicians, journalists, entertainment moguls, and other institutional figures in the "deep state" seek to undermine President Trump, according to Forrest (2021). Collins (2021) reports the QAnon adherents are preparing for doomsday.

Similarly, Harwell and Timberg (2021) write:

Q, QAnon's unidentified online prophet, had promised that Trump was secretly spearheading a spiritual war against an elite cabal of child-eating Satanists who controlled Washington, Hollywood, and the world. Believers in these false, rambling theories had counted down the hours waiting for Trump to corral his enemies for military tribunals and mass executions in a show of force they called "the Storm." *Some QAnon followers felt that they had been played, but others doubled down* [emphasis mine].

According to Graham Brookie (cited in Harwell & Timberg, 2021), others made increasingly illogical leaps as they struggled to make sense of developments. Brookie wrote, “It’s something that has long been true of conspiracy theories: When they don’t come to fruition, they shift their delusions to the next thing,” he said. He noted how some comments posted below Trump’s farewell video suggested that “it wasn’t quite time for the Great Awakening, but it’s coming soon, and this is how.”

When one’s beliefs are proven wrong, some people continue with the false beliefs. This behavior can be explained by cognitive dissonance theory. Harmon-Jones and Mills (2019, p. 3-6) write:

Dissonance is aroused when people are exposed to information that is inconsistent with their beliefs. If the dissonance is not reduced by changing one’s belief, the dissonance can lead to misperception or misinterpretation of the information, rejection or refutation of the information, seeking support from those who agree with one’s belief, and attempting to persuade others to accept one’s belief. (p.6)

The greater the magnitude of the dissonance, the greater is the pressure to reduce dissonance. ... dissonance can be reduced by removing dissonant cognitions, adding new consonant cognitions, reducing the importance of dissonant cognitions, or increasing the importance of consonant cognitions. (p. 3)

The above deals with showing how cognitive dissonance can explain one’s beliefs. Another psychological theory is the homophily principle.

People with similar beliefs have shared values. As McPherson et al. (2001) write, “Similarity breeds connection. This principle—the homophily principle—structures network ties of every type, including marriage, friendship, work, advice, support, information transfer, exchange, comembership, and other types of relationship” (p. 415).

Homophily. Homophily refers to the tendency for people to socialize with those they find similar. The potential dark side of homophilous belief sharing is intimidation. When the group advances a belief to which an individual differs, that individual can feel compelled to go along with the group or remain silent. Elisabeth Noelle-Neumann (1974) found people tend to remain silent when they feel that their views are in opposition to the majority view. They do this out of fear of isolation or reprisal. She called this phenomenon the “Spiral of Silence.” For more on social networks’ impact on cognition, see E. B. Smith et al. (2020).

Motivated Reasoning. People have an unconscious tendency to credit and dismiss factual information independent of the truth to promote some goal or interest. This has been studied as motivated reasoning (Kunda, 1990). Identity-protective cognition (IPC) is a type of motivated reasoning; Sherman and Cohen (2006) write that people display IPC when they alter their beliefs to protect their status within the affinity group.

Relating to the 2021 US Insurrection. Hannah Arendt (1973) wrote the following in *The Origins of Totalitarianism*. “Before mass leaders seize the power to fit reality to their lies, their propaganda is marked by its extreme contempt for facts as such, for in their opinion fact depends entirely on the power of man who can fabricate it.” This phenomenon may explain the split in the US Republican party between followers of Trumpism and followers of more traditional Republican values. See also Brown (1963) and Ottenheimer (2020) for techniques of propaganda and brainwashing. In “Propaganda as signaling,” political scientist Haifeng Huang (2015) noted that propaganda is not just brainwashing. Another purpose is instilling pro-regime values and attitudes. Authoritarian leaders are not necessarily trying to convince you; they are reminding you of their power. By repeating a tiresome and obviously false message, the authoritarian leader signals that the public is powerless and “helpless to do anything about it.” “If a regime can make the people around you partake in absurdities, you are less likely to challenge the regime.”

The above discussion helps us understand why people select the sources of information that they do. But even within each message source, some messages garner more attention than do others. We call this Message Resonance.

Message Resonance

E. Cohen (2020) explored message resonance; the following section is based on that paper. This section describes elements that make messages more effective at changing beliefs (or at least guiding one's attention).

Heath and Heath (2007) summarize how to make ideas that “stick,” that is, that have an impact on the receiver. They call their model SUCCESs.

- **S- Simple.** Keep the message simple and short.
- **U – Unexpected.** Messages that are unexpected garner the most attention.
- **C – Concrete.** Have the message paint a mental picture that helps people remember it.
- **C- Credible.** Quote experts or anti-authorities.
- **E- Emotional.** People care about people more than they do about numbers and statistics.
- **S – Stories.** As the authors write, “stories drive action through stimulation (what to do) and inspiration (the motivation to do it).”

Robert Cialdini (2016) has written extensively on this topic.

- Keep the client focused on your message, and it will become vital for them, at least for a short time.
- Once you have initial buy-in for the message from the client, get the client to commit
- For some messages, violence and sex attract attention.

Wording

“Since we cannot change reality, let us change the eyes which see reality.”
– **Nikos Kazantzakis** (source: “Nikos Kazantzakis,” 2020)

When telling a story, Carver et al. (1983) show how the selection of wording can have a significant impact on the informing. For example, people prefer to purchase a “pre-owned” car than to buy a “used” car. Retitling the estate duty as a “death” tax makes many loyal taxpayers less enthusiastic about sharing their inheritances.

Words can even impact the impact of one's genes and, in this way, how one perceives reality, according to Newberg and Waldman (2013, p.3). They write, “a single word has the power to influence the expression of genes that regulate physical and emotional stress.” Positive words like “love” build resilience in the brain; hostile language disrupts neurochemicals production that protects us from stress. The book notes the following:

Over time, the structure of your thalamus will also change in response to your conscious words, thoughts, and feelings, and we believe that the thalamic changes affect the way in which *you perceive reality* [emphasis mine]. (pp.34-35)

Psycholinguists also research the issue of words and the brain. Danziger and Ward (2010) found that words, even the selection of language spoken, impact decision-making (see also Burton, 2009).

Wording and Framing Theory

“Facts are one thing. And the way that people react to them and make evaluations is entirely different”, says Isaiah Arkin, a professor of Structural Biochemistry at the Hebrew University of Jerusalem, in an interview with David Horovitz (2020). In the interview, Arkin related the following

anecdote on the psychology of decision making used by Nobel Prize winner Daniel Kahneman from the Hebrew University.

Someone goes to a doctor with a particular problem. The doctor tells him, “oh, fantastic; I have a procedure that will cure this by 90 percent.” The patient says, “Excellent procedure — sure. Sign me up.”

That individual might choose to go to a different doctor. And that different doctor might say, oh, I have a procedure, but there’s a 10 percent failure. The patient says, “That’s a terrible procedure. Why would I use that?”

Tversky and Kahneman’s 1989 Framing Theory tell us that choice phrasing greatly impacts how choice-message will be accepted when given alternatives.

Like framing, wording can trigger the metaphor’s construct in one’s brain.

Wording that invokes metaphors create message resonance

“If you want to change the world, you have to change the metaphor.”

Joseph Campbell (quoted by Bill Moyers, 2017).

While all have their sense of reality, myths and other common sets of shared beliefs are elements of one’s sense of reality. Whether based on facts or unproven stories, myths form the backdrop for metaphors on what to believe, right from wrong, and how to live life.

An empirical study by Thibodeau et al. (2017) demonstrates the metaphor’s power. They asked subjects to offer a solution to a real-world problem, changing just one word in how the problem was posed: *beast* or *virus*. The choice of which specific word, *beast*, or *virus*, changed the metaphor subjects used in calculating the best solution. Subjects read the following:

Crime is a [beast/virus] ravaging the city of Addison. Five years ago, Addison was in good shape, with no obvious vulnerabilities. Unfortunately, in the past five years, the city’s defense systems have weakened, and the city has succumbed to crime. Today, there are more than 55,000 criminal incidents a year - up by more than 10,000 per year. There is a worry that if the city does not regain its strength soon, even more serious problems may start to develop.

Those whose paragraph included the word “*beast*” was more in favor of incarceration. Those reading the word “*virus*” were inclined more toward treatment. An out-of-control monster needs to be captured and locked away, but spreading infection requires thoughtful analysis to determine and then eliminate its root causes. So, changing just one word activated different mental constructs in the narrative and so stimulated different solutions.

Typically, people do not even notice the metaphor and do not realize its great impact on them. The wording selection may elicit a shortcut in one’s Message Process System that directs attention into one area for a solution and thus away from others. Notice something unusual in the above case. The single word change did not attract attention. At the start of this paper, we initially defined resonance as getting past the narrative’s filters and associated it with the message attracting attention. But research shows that in some cases, it is not necessary to attract attention.

Goodhew and Kidd (2020) show that even the color of the word on the page or screen affects behavior. This finding fits well with Galdi et al.’s (2008) theory that automatic mental associations affect decision making, or using the terms of this paper, the impact a message will have on the receivers.

SUMMARY

This paper brings to focus research and studies derived from a variety of academic fields.

It has explored the influence of information, misinformation, and disinformation on why people have differing beliefs.

It has brought to focus the concept of created realities and used two examples to show the influence of Russian and other disinformation campaigns.

It showed how an extension of the M-C-B model of message processing can explain how different individuals select different messages to create their beliefs.

The paper looked at influences that determine how people select which messages to attend. The paper then introduced the concept of values in message selection.

The readers saw how cognitive consistency and cognitive dissonance influence message selection and determine whether to express thoughts contrary to one's group. When confronted with evidence that one's prior beliefs were false, we saw how some abandon the belief while others believe even stronger in the false beliefs.

Finally, the paper explored another element in message selection, message resonance, in terms of how the message is packaged and worded.

REFERENCES

- 8values. (n.d.). Github. <https://8values.github.io/>
- Abu Toameh, K. (2021, January 5). Palestinians say they are now trying to get vaccines from Israel. *Jerusalem Post*. <https://www.jpost.com/health-science/palestinians-say-they-are-now-trying-to-get-vaccines-from-israel-654352>
- AltValues. (n.d.) Github. <https://altvalues.github.io/>
- Arendt, H. (1973). *The origins of totalitarianism*. Harcourt. https://www.google.com/books/edition/The_Origins_of_Totalitarianism/8f2y0F2wzLoC?hl=en&gbpv=1&dq=Arendt,+H.+The+Origins+of+Totalitarianism+&pg=PR7&printsec=frontcover
- Ariely, D., & Jones, S. (2008). *Predictably irrational*. Harper Audio.
- Aylesworth, G. (2015). Postmodernism. In Edward N. Zalta (Ed.), *The Stanford encyclopedia of philosophy (Spring 2015 edition)*. <https://plato.stanford.edu/archives/spr2015/entries/postmodernism/>
- Barberá, P., Jost, J. T., Nagler, J., Tucker, J. A., & Bonneau, R. (2015). Tweeting from left to right: Is online political communication more than an echo chamber? *Psychological Science*, 26(10), 1531-1542. <https://doi.org/10.1177/0956797615594620>
- Benkler, Y., Faris, R., & Roberts, H. (2018). *Network propaganda: Manipulation, disinformation, and radicalization in American politics*. Oxford University Press.
- Benkler, Y., Tilton, C., Etling, B., Roberts, H., Clark, J., Faris, R., Kaiser, J. & Schmitt, C. (2020, October 2) *Mail-in voter fraud: Anatomy of a disinformation campaign*. Berkman Center Research Publication No. 2020-6. <https://doi.org/10.2139/ssrn.3703701>
- Brafman, O., & Brafman, R. (2008). *Sway: The irresistible pull of irrational behavior*. Currency.
- Brown, J. A. C. (1963). *Techniques of persuasion, from propaganda to brainwashing* (Vol. 604). Penguin books. https://ia803207.us.archive.org/25/items/brown-j.-a.-c.-techniques-of-persuasion-1963/BROWN%28J.A.C.%29-Techniques_of_Persuasion_%281963%29.pdf
- Burton, R. A. (2009). *On being certain: Believing you are right even when you're not*. Macmillan.
- Bybelezzer, C. (2020, December 21). *Media: Israel leaves Palestinians waiting for vaccines; Truth: Palestinians never asked Israel for help*. <https://honestreporting.com/media-israel-leaves-palestinians-waiting-for-vaccines-truth-palestinians-never-asked-israel-for-help/>
- Cialdini, R. (2016). *Pre-suasion: A revolutionary way to influence and persuade*. Simon and Schuster.
- Carver, C. S., Ganellen, R. J., Froming, W. J., & Chambers, W. (1983). Modeling: An analysis in terms of category accessibility. *Journal of Experimental Social Psychology*, 19(5), 403-421. [https://doi.org/10.1016/0022-1031\(83\)90019-7](https://doi.org/10.1016/0022-1031(83)90019-7)

- Cassidy, J. (2020, August 5). Trump's attempt to obscure the reality of the coronavirus pandemic is getting comical. *The New Yorker*. <https://www.newyorker.com/news/our-columnists/trumps-attempt-to-obscure-the-reality-of-the-pandemic-is-getting-comical>
- Cohen, D. (2021, January 3). Ted Cruz urges critics of presidential election challenge to calm down. *Politico Magazine*. <https://www.politico.com/news/2021/01/03/ted-cruz-presidential-election-challenge-calm-down-453842>
- Cohen, E. (2019). Building an informing science model in light of fake news. *Informing Science: The International Journal of an Emerging Transdiscipline*, 22, 95-114. <https://doi.org/10.28945/4486>
- Cohen, E. (2020). Why people perceive messages differently: The theory of cognitive mapping. *Informing Science: The International Journal of an Emerging Transdiscipline*, 23, 89-106. <https://doi.org/10.28945/4629>
- Cohen, E., & Boyd, E. (2019). The KGB and anti-Israel propaganda operations. *Informing Science: The International Journal of an Emerging Transdiscipline*, 22, 157-182. <https://doi.org/10.28945/4488>
- Collins, B. (2021, January 19). Increasingly militant 'Parler refugees' and anxious QAnon adherents prep for doomsday. *ABC News*. <http://nbcnews.com/tech/internet/increasingly-militant-parler-refugees-anxious-qanon-adherents-prep-doomsday-n1254775>
- Coppins, M. (2020, February 6). The billion-dollar disinformation campaign to reelect the president. *The Atlantic*. <http://theatlantic.com/magazine/archive/2020/03/the-2020-disinformation-war/605530>
- Danziger, S., & Ward, R. (2010). Language changes implicit associations between ethnic groups and evaluation in bilinguals. *Psychological Science*, 21(6), 799. <https://doi.org/10.1177/0956797610371344>
- Desai, S., Mooney, H., & Oehrli, J.A. (2020) "Fake news," lies, and propaganda: How to sort fact from fiction. University of Michigan Library Research Guides. <https://guides.lib.umich.edu/c.php?g=637508&p=4462356>
- Dorell, O. (2017, February 15). Donald Trump's ties to Russia go back 30 years. *USA Today*. <http://usatoday.com/story/news/world/2017/02/15/donald-trumps-ties-russia-go-back-30-years/97949746/>
- Ellick, A. B. & Westbrook, A. (2018). *Seven commandments of fake news - New York Times exposes Kremlin's methods*. EU vs Disinfo. <https://euvsdisinfo.eu/seven-commandments-of-fake-news-new-york-times-exposes-kremlins-methods/>
- Festinger, L. (1962). Cognitive dissonance. *Scientific American*, 207(4), 93-106. <https://www.jstor.org/stable/10.2307/24936719>
- Festinger, L., Riecken, H., & Schachter, S. (1956). *When prophecy fails*. University of Minnesota Press.
- Forrest, B. (2021, January 12). What is QAnon? What we know about the conspiracy-theory group. *Wall Street Journal*. <https://www.wsj.com/articles/what-is-qanon-what-we-know-about-the-conspiracy-theory-11597694801>
- Frantzman, S. (2019, July 8). Linda Sarsour's 'Jesus was Palestinian' comment ignores Jewish history. *The Jerusalem Post*. <https://www.jpost.com/diaspora/antisemitism/linda-sarsours-jesus-was-palestinian-ignores-jewish-history-594875>
- Galdi, S., Arcuri, L., & Gawronski, B. (2008). Automatic mental associations predict future choices of undecided decision-makers. *Science*, 321(5892), 1100-1102. <https://doi.org/10.1126/science.1160769>
- Goodhew, S. C., & Kidd, E. (2020). Bliss is blue and bleak is grey: Abstract word-colour associations influence objective performance even when not task relevant. *Acta Psychologica*, 206, 103067. <https://doi.org/10.1016/j.actpsy.2020.103067>
- Harkov, L. (2021a, January 22). Israel allows vaccines to be delivered to Palestinians in West Bank, Gaza Goldin family: Don't authorize transfer to Strip until captives released. *The Jerusalem Post*.
- Harkov, L. (2021b, January 4). Media adopts canard Israel denies vaccine to Palestinians – analysis. *The Jerusalem Post*. <https://www.jpost.com/diaspora/antisemitism/when-antisemitism-goes-mainstream-analysis-654206>
- Harmon-Jones, E., & Mills, J. (2019). *An introduction to cognitive dissonance theory and an overview of current perspectives on the theory*. <https://doi.org/10.1037/0000135-001>

Created Realities

- Harwell, D., & Timbert, C. (2021, January 20). *QAnon believers grapple with doubt, spin new theories as Trump era ends*. The Washington Post. <https://www.washingtonpost.com/technology/2021/01/20/qanon-trump-era-ends/>
- Heath, C., & Heath, D. (2007). *Made to stick: Why some ideas survive, and others die*. Random House.
- Hendrix, S. & Rubin, S. (2020, December 19). Israel is starting to vaccinate, but Palestinians may have to wait months. *The Washington Post*. https://www.washingtonpost.com/world/middle_east/israel-vaccine-palestinians-coronavirus/2020/12/18/f1d8d572-4083-11eb-b58b-1623f6267960_story.html
- Henry, C. (2019). *Not Buying It*. Unbound. <https://unbound.com/books/not-buying-it/>
- Horowitz, D. (2020, March 18). Israeli scientist: You're not going to see millions of people die from COVID-19. *The Times of Israel*. <https://www.timesofisrael.com/israeli-scientist-youre-not-going-to-see-millions-of-people-die-from-covid-19/>
- Huang, H. (2015). Propaganda as signaling. *Comparative Politics*, 47(4), 419-444.
- Jowett, G. S., & O'Donnell, V. (2018). *Propaganda & persuasion*. Sage publications.
- Kim, C. (2020, November 9). Poll: 70 percent of republicans don't think the election was free and fair. *Politico*. <https://www.politico.com/news/2020/11/09/republicans-free-fair-elections-435488>
- Kim, M. J., Lee, C. K., & Jung, T. (2020). Exploring consumer behavior in virtual reality tourism using an extended stimulus-organism-response model. *Journal of Travel Research*, 59(1), 69-89. <https://doi.org/10.1177/0047287518818915>
- Kirschenbaum, H., Harmin, M., Howe, L., & Simon, S. B. (1977). In defense of values clarification. *The Phi Delta Kappan*, 58(10), 743-746.
- Krauss, J. (2020, December 17). Palestinians left waiting as Israel is set to deploy COVID-19 vaccine. *PBS*. <https://www.pbs.org/newshour/health/palestinians-left-waiting-as-israel-is-set-to-deploy-covid-19-vaccine>
- Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin*, 108(3), 480. <https://fbaum.unc.edu/teaching/articles/Psych-Bulletin-1990-Kunda.pdf>
- Lasswell, H. (1927). The theory of political propaganda. *The American Political Science Review*, 21(3), 627-631. <https://doi.org/10.2307/1945515>
- Lubbock, J. (2020, July 29). Is Russian propaganda amplifying nation of Islam's Antisemitic "True Hebrew" Trope? *Byline Times*. <https://bylinetimes.com/2020/07/29/is-russian-propaganda-amplifying-the-nation-of-islams-antisemitic-true-hebrew-trope/>
- Marcellino, W., Johnson, C., Posard, M. N., & Helmu, T. C. (2020). *Foreign interference in the 2020 election: Tools for detecting online election interference*. RAND Corporation. https://www.rand.org/pubs/research_reports/RRA704-2.html
- Marist Poll. (2021, January 15.) *NPR/PBS NewsHour/Marist Poll results: Trump & the insurrection*. Marist Institute for Public Opinion. <http://maristpoll.marist.edu/npr-pbs-newshour-marist-poll-results-trump-the-insurrection/>
- McPherson, M., Smith-Lovin, L., & Cook, J. M. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, 27(1), 415-444. <https://doi.org/10.1146/annurev.soc.27.1.415>
- Menn, J. (2020a, August 24). QAnon received earlier boost from Russian accounts on Twitter, archives show. *Reuters*. <https://www.reuters.com/article/us-usa-election-qanon-cyber/qanon-received-earlier-boost-from-russian-accounts-on-twitter-archives-show-idUSKBN27I18I>
- Menn, J. (2020b, November 2). Russian-backed organizations amplifying QAnon conspiracy theories, researchers say. *Reuters*. <https://www.reuters.com/article/us-usa-election-qanon-russia/russian-backed-organizations-amplifying-qanon-conspiracy-theories-researchers-say-idUSKBN25K13T>
- Miller, E. (2021, January 14). Evolution of a false media narrative: The Palestinian coronavirus vaccine lie. *Honest Reporting*. <https://honestreporting.com/evolution-of-a-false-media-narrative-the-palestinian-coronavirus-vaccine-lie/>

- Mohyeldin, A. (2020, December 24). Covid vaccine distribution underway in Israel, Palestinians may wait months. *MSNBC*. <https://www.msnbc.com/ayman-mohyeldin/watch/covid-vaccine-distribution-underway-in-israel-palestinians-may-wait-months-98385477924>
- Moyers, B. (2017, June 9). *A Conversation with Bill Moyers*. Public Broadcasting Service. https://archive.org/details/KQED_20170609_090000_A_Conversation_With_Bill_Moyers
- Nations, D. (2019, October 28). *How confirmation bias locks people into a political bias bubble*. Daniel Nations. <https://danielnations.medium.com/why-do-republicans-and-democrats-let-other-people-do-their-thinking-dc6d208945e4>
- Newberg, A., & Waldman, M. R. (2013). *Words can change your brain: 12 conversation strategies to build trust, resolve conflict, and increase intimacy*. Penguin.
- Nikos Kazantzakis. (2020, February 14). In *Wikipedia*. https://en.wikiquote.org/wiki/Nikos_Kazantzakis
- Noelle-Neumann, E. (1974). The spiral of silence: A theory of public opinion. *Journal of Communication*, 24(2), 43-51. <https://doi.org/10.1111/j.1460-2466.1974.tb00367.x>
- Ottenheimer, D. (October 14, 2020). *How to win with propaganda*. Security Boulevard. <https://securityboulevard.com/2020/10/how-to-win-with-propaganda/>
- Peters, J. W. (2021, January 20). “They have not legitimately won”: Pro-Trump media keeps the disinformation flowing. *The New York Times*. <https://www.nytimes.com/2021/01/20/business/media/misinformation-trump-media.html>
- Pew Research Center. (2019, December 17). *In a politically polarized era, sharp divides in both partisan coalitions*. https://www.pewresearch.org/politics/wp-content/uploads/sites/4/2019/12/PP_2019.12.17_Political-Values_FINAL.pdf
- Pomerantsev, P. (2014). *Nothing is true and everything is possible: The surreal heart of the new Russia*. Public Affairs.
- Posard, M. N., Kepe, M., Reiningger, H., Marrone, J. V., Helmus, T. C., & Reimer, J. R. (2020, October 1). *From consensus to conflict: Understanding foreign measures targeting US elections*. RAND Corporation. https://www.rand.org/pubs/research_reports/RRA704-1.html
- Rabin-Havt, A. (2016). *Lies, incorporated: The world of post-truth politics*. Anchor.
- Rawnsley, A. (2021, January 12). Trolls planted dozens of bogus stories on legit news sites. *The Daily Beast*. <http://thedailybeast.com/pro-iran-trolls-planted-dozens-of-bogus-stories-on-legit-news-sites>
- Rose, J. (2020, December 30). Even if it's ‘bonkers,’ poll finds many believe QAnon and other conspiracy theories. *NPR*. <https://www.npr.org/2020/12/30/951095644/even-if-its-bonkers-poll-finds-many-believe-qanon-and-other-conspiracy-theories>
- Sadler-Smith, E., & Riding, R. (1999). Cognitive style and instructional preferences. *Instructional Science*, 27(5), 355-371. <https://doi.org/10.1007/bf00892031>
- Sales, B. (2021, February 15). Nearly 30% of Republicans believe central tenet of QAnon conspiracy – poll. *The Jerusalem Post*. <https://www.jpost.com/american-politics/nearly-30-percent-of-republicans-believe-central-tenet-of-qanon-conspiracy-poll-658992>
- Seidel, J. (2020, December 24). *Lies, distortions, disinformation, and spin are what broke the US in 2020*. News.com.au. <https://www.news.com.au/world/north-america/us-politics/lies-distortions-disinformation-and-spin-are-what-broke-the-us-in-2020/news-story/4a76b32a695200ab5a27a4ac799c888e>
- Serwer, A. (2020, May 13). Birtherism of a nation. *The Atlantic*. <https://www.theatlantic.com/ideas/archive/2020/05/birtherism-and-trump/610978/>
- Sherman, D. K., & Cohen, G. L. (2006). The psychology of self-defense: Self-affirmation theory. *Advances in Experimental Social Psychology*, 38, 183-242. http://www.dagankenaz.com/framing/ShermanDK_SelfAffirmationTheory2006.pdf
- Simon, S. B., Howe, L. W., & Kirschenbaum, H. (1972). *Values clarification*. Grand Central Publishing. <https://www.google.com/books/edition//8gaB2q-8s-IC?hl=en&gbpv=1>

Created Realities

- Smith, D. (2021, January 29). 'The perfect target': Russia cultivated Trump as asset for 40 years – ex-KGB spy. *The Guardian*. <http://theguardian.com/us-news/2021/jan/29/trump-russia-asset-claims-former-kgb-spy-new-book>
- Smith, E. B., Brands, R. A., Brashears, M. E., & Kleinbaum, A. M. (2020). Social networks and cognition. *Annual Review of Sociology*, 46. <https://doi.org/10.1146/annurev-soc-121919-054736>
- Sokoloski, M. (2021, January 11). Trump and sycophants have Putin dancing in the street. *The Daily Times*. https://www.thedailytimes.com/opinion/trump-and-sycophants-have-putin-dancing-in-the-street/article_f0d2ac3b-3ad7-54d0-9123-1d82d5d5d3e5.html
- Stern, J. (2021, January 17). Social-media algorithms rule how we see the world. Good luck trying to stop them. *The Wall Street Journal*.
- Sternthal, T. (2020a, December 20). AP falsely casts Israel as responsible for providing Palestinians with vaccines. *Committee for Accuracy in Middle East Reporting and Analysis*. <https://www.camera.org/article/ap-falsely-casts-israel-as-responsible-for-providing-palestinians-with-vaccines/>
- Sternthal, T. (2020b, December 30). James Zogby, MSNBC's Ayman Mohyeldin pair up for corona Christmas propaganda extravaganza. *Committee for Accuracy in Middle East Reporting and Analysis*. <https://www.camera.org/article/james-zogby-msnbcs-ayman-mohyeldin-pair-up-for-corona-christmas-propaganda-extravaganza/>
- Stewart, J. S. (1975). Clarifying values clarification: A critique. *The Phi Delta Kappan*, 56(10), 684-688.
- Tabarovsky, I. (2019, May). Soviet anti-zionism and contemporary left antisemitism. *Fathom Journal*. <http://fathomjournal.org/soviet-anti-zionism-and-contemporary-left-antisemitism/>
- Tardáguila, C. & Mantas, H. (2021, January 6). A man wearing a buffalo cap proves how far mis/disinformation can go and how dangerous it can be. *Poynter*. <http://poynter.org/fact-checking/2021/a-man-wearing-a-buffalo-cap-proves-how-far-mis-disinformation-can-go-and-how-dangerous-it-can-be>
- Therapist Aid. (n.d.). *Values assessment*. <https://www.therapistaid.com/interactive-therapy-tool/values-assessment>
- Thibodeau, P. H., Hendricks, R. K., & Boroditsky, L. (2017). How linguistic metaphor scaffolds reasoning. *Trends in Cognitive Sciences*, 21(11), 852-863. <https://doi.org/10.1016/j.tics.2017.07.001>
- Thompson, D. (2008). *Counterknowledge*. WW Norton & Company.
- Turcilo, L. & Obrenovic, M. (2020, August). Misinformation, disinformation, malinformation: Causes, trends, and their influence on democracy. *Heinrich Böll Foundation*. https://hk.boell.org/sites/default/files/importedFiles/2020/11/04/200825_E-Paper3_ENG.pdf
- Tversky, A., & Kahneman, D. (1989). Rational choice and the framing of decisions. In B. Karpak & S. Zions (Eds.), *Multiple criteria decision making and risk analysis using microcomputers* (pp. 81-126). Springer. https://doi.org/10.1007/978-3-642-74919-3_4
- United States Senate. (2020, August 18). Report of the select committee on intelligence united states senate on Russian active measures campaigns and interference in the 2016 US election: counterintelligence threats and vulnerabilities. 116th Congress 1st Session. https://www.intelligence.senate.gov/sites/default/files/documents/report_volume5.pdf and https://www.intelligence.senate.gov/sites/default/files/documents/Report_Volume1.pdf
- Villasenor, M. (2021, January 4). 2020 in review: The year disinformation went mainstream. *Council on Foreign Relations*. <https://www.cfr.org/blog/2020-review-year-disinformation-went-mainstream>
- Wardle, C. (2017, February 16). Fake news. It's complicated. *First Draft*. <https://firstdraftnews.org/latest/fake-news-complicated/>
- Weimann, G. (2000). *Communicating unreality: Modern media and the reconstruction of reality*. Sage Publications. <https://sk.sagepub.com/books/communicating-unreality>

Weiss, D. C. (2020, December 14). Afternoon briefs: At least 86 judges reject election claims; Granddaughter of Biden joins BigLaw. *ABA Journal*. <https://www.abajournal.com/news/article/afternoon-briefs-at-least-86-judges-reject-election-claims-biden-granddaughter-joins-biglaw>

AUTHOR



Eli Cohen founded and now serves as the Executive Director of the Informing Science Institute and as Editor-in-Chief of two of its journals, *Informing Science*: the international journal of an emerging transdiscipline, and the journal *Issues in Informing Science and Information Technology*. He has a background in multiple disciplines, including psychology, statistics, business, and cat tending. He retired from the Kozminski University in Warsaw.