

GULLIBILITY AND THE ENVELOPE OF LEGITIMACY

Joel Cooper

Princeton University

On the evening before Halloween, 1938, Orson Welles began his weekly radio broadcast with the disclaimer that the Mercury Theater would present a dramatization of H.G. Wells' *War of the Worlds*. By the time his broadcast had ended, hundreds of thousands of American listeners were seized with panic as they tried to flee monsters from the planet Mars. In the dramatization, listeners heard what was portrayed as a series of news bulletins. One of the bulletins described unusual explosions on Mars while another indicated that there had been a disturbance in a field in the small town of Grovers Mill, New Jersey where a "huge flaming object" had landed. A CBS news reporter and a Princeton University astronomy professor allegedly raced to the scene to describe that monsters too hideous to describe were emerging from the object. Within the next few minutes, the monsters had decimated the state police and were in full control of the area. The National Guard was called and it, too, proved no match for the objects.

The consequences of the great deception were brief but spectacular. It was estimated that six million listeners heard the broadcast and that at least one million believed that Martians had invaded the United States. (Cantril, 1940). They believed that Martians had been sighted in many major cities across the country and that New York City itself had been wiped from the Earth. People cried, screamed and prepared for the end. Mr. William Dock was famously photographed with his shotgun, ready to do battle with any Martian that dared attack

his farm. Others got into their cars to drive as far away as they possibly could while still others huddled with loved ones to await their end. “We all kissed one another and felt we would all die,” admitted one respondent. The reaction was not confined to any educational, geographic or racial group. The *New York Times* reported that that in several communities, physicians showed up at hospitals to help care for the injured and college students sped along highways to spend their last moments with their families.

Orson Welles’ broadcast underscored the plausibility of the implausible. Not only was the program’s premise a fantasy, but Welles had clearly stated that the Mercury Theater was a drama. The program itself was rife with internal inconsistencies of time and space. Nonetheless, it caused more than a million people to become frightened, many of whom took action to flee from the Martian menace. During the ensuing decades, commentators have speculated on the gullibility of the audience with a concern for whether such gullibility could lead to a future bout of mass hysteria.

Toward an Operational Definition of Gullibility

The Oxford dictionary defines gullibility as the tendency to be easily persuaded. Merriam-Webster adds “easily duped or cheated.” The definitions imply that extreme persuasibility is the property of the individual. It is sometimes seen as synonymous with naïveté or foolishness (Rotter, 1980). Viewed as an element of personality, it should transcend time and situation. The implication of this perspective is that people who are gullible are generally easy to persuade or deceive. They are the kinds of people who believe what they are told not only about creatures invading from other planets but about most anything conveyed to them by authority. They believe in séances and believe political rhetoric that emanates from the

pens or mouths of populist leaders. The search for personality variables in persuasion has proved elusive (Cooper, Blackman & Keller, 2016), and the search for reliable individual differences in the degree of gullibility has been no exception (Mercier, 2017). Rotter (1980), for example, examined the relationship between gullibility and interpersonal trust and could find no systematic evidence that the reliable individual differences in trust were related to people's tendency to believe statements that most people would see as untrue.

Mercier (2017) views gullibility as source-based rather than a characteristic of certain impressionable people. He maintains that gullibility emanates from the undue influence of "focal sources, often authority figures, be thy religious leaders, demagogues, TV anchors or celebrities." (Mercier, 2017, p. 104). Certainly, history is replete with communicators who had the ability to convince masses to believe propaganda that, in retrospect, facilitates our using the term gullible to describe their falling prey to the communicators' messages. From Huey Long to Adolf Hitler, communicators have had the special charisma, power and the ability to persuade.

In the *War of the Worlds* radio broadcast, the talent of the communicator was extraordinary. Orson Welles, at the time just a little-known radio host, was soon to become one of the world's greatest actors. His rhetorical gifts may have been a primary cause of the mass beliefs and hysteria that the newspapers were later to label as gullibility. The actor portraying the Secretary of the Interior was specifically chosen for his ability to imitate the voice of President Franklin Roosevelt. This ensemble of communicators represented the credible source that could convince the naïve and the sophisticated to believe in the improbable newscast.

Another conceptualization of gullibility is to consider people's faulty responses to a persuasive communication. In this view, gullibility is conceptualized as believing someone's communication despite good evidence that the person should not be believed (Rotter, 1980). The gullible audience simply fails to seek consider reasons for disbelief. It is the basis of the phenomenon known as the Barnum effect (Meehl, 1956) whereby individuals give high accuracy ratings to descriptions of their personality that supposedly are tailored specifically to them but that are, in fact, vague and general enough to apply to a wide range of people. People fail to notice that the statements are at a level of abstraction that makes them applicable to almost anyone.

Even when people do check the trustworthiness of the source and the information, persuasion that we can call gullibility occurs. In the response to the War of the Worlds broadcast, almost everyone whom Cantril (1940) interviewed and those who were quoted in newspapers around the country made an attempt to check the veracity of the information. One person reported looking out her window and seeing traffic on the street. "They all must be fleeing the invasion," she reported. Another person looked out his window and saw no traffic at all on his street. "The roads must be clogged on account of the Martians," he concluded. Another person quickly tuned to another of his favorite stations. He heard static. He concluded that the Martians had knocked the station off the air. Another listener turned his dial to find corroboration. He heard church music. "They all must be praying," he thought.

We may be better able to identify gullibility than define it. When large numbers of people fall for an implausible assertion, we have little trouble identifying it as an instance of gullibility. Almost all newspapers on the morning of October 31, 1938, used terms like duped

and gullible to describe the hysteria and the widespread belief that creatures from the planet Mars had landed. Why? Because the untruthful premise was so outrageous that people found it difficult to identify disconfirming evidence. Although people may have checked for corroborating evidence, many ultimately accepted the premise that the Martians had landed. The only question left was what to do about it. As some of the reactions to the War of the Worlds broadcast attest, it is difficult to be certain of how to disconfirm the assertion. And disconfirmation may be more difficult as the assertion becomes more outrageous. As Adolf Hitler mused in *Mein Kampf*, "People will believe a big lie sooner than a little one; and if you repeat it frequently enough people will sooner or later believe it.... In the big lie, there is always a certain force of credibility...they fall victim to the big lie since they themselves often tell small lies but would be ashamed to resort to large scale falsehoods. It would never come into their heads to fabricate colossal untruths and they would not believe that others could have the impudence to distort the truth so infamously." (Hitler, 1935, Vol 1, Ch. X).

Gullibility as an Internal State. We view gullibility as a specific response to a persuasive communication. We view it as an internal state -- *an uncomfortable feeling state that is prompted by the perception that one has been persuaded to believe something that is not true.* Not all persuasion results in the feeling of gullibility, even when people realize they have been misled. The feeling of gullibility is associated with the magnitude of the untruth but is not isomorphic with it. It is also associated with source and communication characteristics but not identical to those variables either. Let us consider a more mundane circumstance than being persuaded that the Earth was invaded by Martians. Consider a person persuaded to believe the veracity of a television commercial that promised that a new vitamin supplement will produce

15 pounds of weight loss in a single week. Convinced of the extraordinary impact the supplement could have on his life, the consumer purchases the tablet, only to find that it had no effect whatsoever. Our consumer may or may not feel gullible as a result of his being persuaded to believe the unlikely proposition of 15 pounds of weight loss in a week. Under some circumstances, the consumer may feel disappointed in the outcome but nonetheless conclude that purchase was a reasonable even if unlikely way to accomplish his weight loss goal. He might vow not to believe a similar communication in the future, become annoyed with the radio station that aired the commercial or vow never to believe a person wearing a white lab coat in an infomercial.

On the other hand, being persuaded to purchase the unlikely pill may cause the individual to experience the unpleasant tension state of gullibility. The person believes that his own sense of self-esteem has been implicated. His experience is self-directed. Good and worthy people do not fall for schemes. Good and worthy people do due diligence. They check the credibility of the source, the reasonableness of the claims and/or the evidence that the claim is valid. This person may use terms like, "I fell for it," to describe his belief in the advertiser's claims. The experience is unpleasant, aversive and motivates him to reduce it.

People who listened to the War of the Worlds broadcast responded in many different ways. Some disbelieved in the first instance, realizing they had been listening to a drama. Some were angry but others viewed their being persuaded as their own fault. It is this reaction that we term gullibility. Mr. T. Owen Miller of Washington, DC, captured this view of gullibility when he explained, "I admit that I am one of the many thousands who showed incredible stupidity, lack of nerve and ignorance while listening to Mr. Welles' broadcast."

Gullibility and Dissonance

The claim that gullibility is an aversive, unpleasant reaction to having been persuaded is akin to the feeling of cognitive dissonance that occurs in the presence of inconsistent cognitions. Like dissonance, gullibility is a condition that people seek to reduce. At the operational core of gullibility is your having been persuaded to believe something, or to do something, only to find that what you were led to believe is false. One way to reduce felt gullibility is to accept the improbable belief as true. In the vernacular, you double-down on your belief, becoming even more certain that it is a true and valid position. The person who bought his miracle diet cure, and who feels gullible as a result of its not working, comes to believe that it is actually working. He may even take action to lose weight in other ways in order to avoid the unpleasant feeling of gullibility. The person who believed that Martians had landed will have a difficult time doubling down on that belief ... but he still may try. One woman from Newark, NJ, reported running from her apartment, hoping to drive to her mother's house before the Martians destroyed the city. When she arrived at the street, a man told her that he had heard an announcement that it was all a hoax. She refused to believe him and told him to "start praying."

Among the most well-known examples of gullibility in the psychological literature was the reaction of the group of people who believed that the world would end in a cataclysmic flood. It was arguably the first research specifically designed to test the implications of cognitive dissonance theory (Festinger, Riecken & Schachter, 1956). Member of the group were persuaded by its founder that the end of the world was imminent and that beings from the planet Clarion would descend to Earth on a rocket ship to whisk the true believers to safety

while the rest of the planet was destroyed by the flood. This preposterous communication from Clarion was allegedly delivered to the group by automatic writing, using the founder as a medium. The true believers ---known as the Seekers – included people from all walks of life, including educated professionals. They had been persuaded by Mrs. Keech by what they thought was automatic writing from Clarion, to believe that the world would end. In dramatic fashion, they prepared for the world’s end and awaited the arrival of the space ship from Clarion that would save them from destruction.

The evidence that they had been wrong was obvious. The morning following the expected cataclysm dawned with no destruction and no space ship. The feeling of tension and must have been palpable. How could they live with the shame of believing the preposterous story? How could they deal with their feelings of gullibility? We believe that people will take steps to reduce their experience of gullibility. They convince themselves that they had not been duped after all. Just as our weight supplement consumer tried to convince himself that the supplement he took really was working, the group of cataclysm believers found a way to convince themselves that they had not been wrong after all. In their well-known response to the disconfirmation, the group received a new message from planet Clarion: “that this little group sitting so long shined so much light upon the world, that God has decided to save the Earth from destruction.” And they “doubled-down”. They did not shrink back to their homes with the knowledge that they had been deceived. To the contrary, they shouted their ‘success’ for all to hear. They sent out press releases, wrote flyers and talked to whoever would listen to make sure that the entire world would learn that they had been correct in their beliefs.

Gullibility and the Envelope of Legitimacy.

We do not always feel gullible when we are persuaded to believe. An editorial may extol the virtues of a particular piece of legislation or a particular candidate. A celebrity may tell us that he eats a breakfast “cereal of champions” and an economist from the conservative Freedom Foundation may present convincing arguments for a reduction in corporate tax rates. The arguments in these persuasive messages may convince us, may fail to convince us, or convince us temporarily. We may be persuaded in the short term, but return to our original beliefs over time. Despite being persuaded to believe something that we ultimately feel is not correct, we do not ordinarily feel gullible. We do not experience the unpleasant state of gullibility.

In broad terms, people are aware of two seemingly incompatible principles. On the one hand, we have reason to believe that, in social discourse, people are presumed to tell the truth. The social world would be difficult to navigate if people’s utterances were independent of their truth value. Paul Grice (1975) laid out a number of principles or maxims that people use in civil discourse with each other. In his ‘maxim of quality’, Grice pointed out that a speaker is presumed to be speaking the truth and not knowingly communicate information that the speaker knows to be false. On the other hand, we also know that there are instances in which communicators regularly stray from the truth. Political candidates tell us about their virtuous lives and about the courageous positions they will take if they are elected. We believe them at our own risk. Few citizens are sufficiently naïve to take the promises at face value. We would also not be shocked to learn that the athlete who seemed to savor the ‘breakfast of champions’ cereal on our television screen does not actually eat it for her own breakfast.

Grice's maxim of quality and the principle of healthy skepticism circumscribe an *envelope of legitimacy*. The envelope of legitimacy is a dimension of disingenuousness that people accept in social discourse. We do not expect every communicative act to be entirely truthful but we expect that the communication will lie within a reasonable distance from the truth. Each circumstance will present its own unique envelope of legitimacy. If I have a severe headache and have had a generally awful day, it might be within the envelope of legitimacy to tell the cashier at the grocery store that I am "fine, thank you" when she asks me how I am today. The same response may be outside the envelope if it had been my best friend or my spouse who inquired.

The acceptable envelope of legitimacy will vary as a function of the type of communicator. News anchors are expected to be veridical in their reports and thus have a small envelope of legitimacy. News 'commentators' may be granted larger swath and political candidates may have even wider envelopes. If we are persuaded to believe a position that lies outside the envelope of legitimacy for a particular communicator in a particular circumstance, and subsequently learn that the communication was untrue, that is when we are likely to feel the unpleasant tension state of gullibility.

Approximating the Size of the Envelope of Legitimacy

In the original conceptualization of cognitive dissonance, Festinger (1957) held that two cognitions were in a dissonant relationship if one cognition followed from the obverse of the other. A perplexing aspect of that conceptualization was how to determine when two cognitions were truly dissonant. Was there a way to determine how discrepant one cognition needed to be from another cognition in order for it to arouse dissonance? If a U.S. citizen

believed in the right to bear arms but made a statement advocating a ban on assault rifles, are the two cognitions discrepant? If so, are they sufficiently discrepant to arouse dissonance?

Fazio, Zanna and Cooper (1974) proposed a resolution to determining the degree of discrepancy that is needed for it two cognitions to be psychologically inconsistent. Based on prior classic work by Sherif, Sherif & Nebergall (1965) on latitudes of acceptance and rejection, Fazio et al proposed that people have their own latitudes when it comes to discrepancy. Participants were asked to identify positions on a variety of issues that they believed were acceptable (latitude of acceptance) or not acceptable (latitude of rejection) in light of their own position on the issues. As predicted, the unpleasant feeling of cognitive dissonance occurred only when participants advocated for positions that were outside of their own latitude of acceptance, regardless of whether they were on the same side of the midpoint of the issue.

We believe that the envelope of gullibility is a conceptually similar construct. People have their own conception of the degree to which a communicator can violate the maxim of quality. Some amount of dissimulation is acceptable, even if not desirable. Beyond that latitude fall utterances whose degree of falsehood lies in an unacceptable range. Gullibility requires one more step. A person feels gullible when he or she believes the communication that lies in the latitude of rejection. A person who claims on his resume to have been a university graduate when in fact he dropped out after freshman year would most likely be perceived to have made a statement outside of the envelope of legitimacy. The perceiver experiences gullibility when he or she believes the statement and ultimately realizes that it is not true.

The Motivation to Protect Against Gullibility. Another lesson from cognitive dissonance.

We are proposing that gullibility is an unpleasant feeling and that people will undergo considerable effort to avoid and reduce it. We are proposing that people would rather believe that a lie is true rather than believe that they were duped, if that lie falls outside the envelope of legitimacy. Why should this be so? Elliot Aronson wrestled with this question when he commented on the motivational roots of cognitive dissonance. Why should people be upset when they act inconsistently with their beliefs? Rather than maintaining that people are hard-wired to reject inconsistency, Aronson believed that cognitive dissonance is an experience that implicates the self as unworthy (Aronson, 1960). People generally think that they are good and decent people and have a reasonably positive self-concept. Good and decent people should say what they believe and believe what they say. Only a “schnook” would engage in dissonant behavior. And most people do not think of themselves as schnooks (Aronson, 1999). According to Aronson, at the very heart of dissonance theory is people trying to maintain their sense of self-worth that had been brought into question by their dissonant behavior.

Stone and Cooper (2003) amplified this view especially in conditions in which personal self-standards are made salient. They found that when the self was made salient, people responded to inconsistency by protecting their sense of self-esteem. The more their self-esteem was compromised by their inconsistent behavior, the more dissonance they experienced – that is, they changed their attitudes to protect their self-worth.

In summary, the experience of gullibility occurs when people discover that they have believed a statement that lies outside the envelope of legitimacy and that the statement was

not true. The limits of the envelope of legitimacy will depend on the circumstances of the untruth, including an assessment of the communicator, the communication and the importance of the act. Because gullibility is threatening to people's sense of self-worth, it is experienced as an unpleasant state of tension that people try to avoid or reduce. One way to reduce the aversive experience of gullibility is to diminish its importance but, more interestingly, to convince themselves that the lie was true.

EMPIRICAL RESEARCH: Trusting the Untrustworthy.

Imagine being in a situation in which your well-being depends on how well you can trust another person. Your choices are to trust a partner, with the potential of achieving excellent outcomes, or go it alone and be absolutely certain of a modest outcome. This is the basic choice contained in the classic prisoner's dilemma game. Two partners understand that they each have a binary choice to make. If both partners agree on a common cooperative choice, each partner earns a reward. However, if one of the partners should decide not to cooperate – i.e., defect -- then the defecting partner receives the reward while the other partner receives a punishment. The punishment could be receiving nothing of value or returning a valued prize. If both partners decide to defect simultaneously, then both are punished. The parameters of reward magnitude may change, but the common element in the PDG is that the best outcomes for both partners is mutual cooperation. However, in order for cooperation to yield a positive outcome for each player, each must trust that the other person will cooperate.

We established a PDG in the laboratory. The goal of the experimental procedure was to have participants choose to trust their partner, despite having good reason not to do so. We expected that people who trusted their partner after having seen the partner act in an

untrustworthy manner would experience gullibility. Moreover, we predict that, given another opportunity to trust, partners who trusted on the first occasion would be more likely to trust again as a way of avoiding gullibility.

Participants came to the laboratory to take part in a study on economic games and interpersonal impressions. Each was told that he or she would be paired with a partner who had already participated in one of the games. They would soon play a game together, which will be video recorded, and that recording will be shown to a subsequent participant. First, however, the participant would be shown the video of his or her partner and be asked to make ratings, just as the next person will make ratings of the participant.

Participants were shown a video of two other students playing a dictator game. In that game, one participant makes decisions about how much money each participant would receive on the subsequent round. In our version, the target (i.e., the player who was to become the participant's partner in the PDG) played the role of the allocator. The allocator was given \$10 to distribute, giving as much as he liked to herself, with the remainder going to the partner. The allocator was asked to announce publicly what his allocation would be. After announcing that she would be fair, she actually gave more to herself than her partner. In one condition, she gave herself \$6 and in the other condition, she gave herself nine of the ten dollars. Although the allocator was not completely fair in the \$6 condition, her behavior was expected to be perceived as a violation within what we have called the envelope of legitimacy. The \$9 condition was expected to lie outside the envelope. This assumption was supported by an independent group of participants who rated the magnitude of the violation on a scale of legitimacy.

The participant and target were then seated in separate rooms for the PDG. They were told that the rules of the research allowed one partner to communicate to the other and that the partner would be allowed to communicate to the participant. The partner suggested cooperation and did so on the first round. After suggesting cooperation on the second round, the partner defected. In the communication prior to the round, the partner apologized for defecting and suggested that they should cooperate from this point forward. The dependent measure of interest is what the participant did on the third round.

Although we expected defections on round 3, we predicted that those who were misled by a partner who had already shown his willingness to act outside of the envelope of legitimacy would experience gullibility. They will reduce their unpleasant feeling state by doubling down on their trust in the partner. We predicted that more participants who had witnessed the untrustworthy partner keep the \$9 in the dictator game would cooperate on the third round of the prisoner's dilemma game.

Preliminary results support the proposition. Overall, approximately 60% of participants are defecting on the critical 3rd round: But more participants in the gullibility condition are continuing to trust their partner during the third round than are participants in the control condition. Participants were also asked to rate their feeling of discomfort while playing the game. Consistent with our expectations, participants report feeling more uncomfortable in the gullibility condition than in the control condition.

Gullibility in the Era of Donald Trump

Donald Trump surprised the pundits when he squeaked to an electoral college victory in the 2016 U.S. presidential election. He survived as a candidate despite publicity that would

have ended the campaigns of most candidates. Allegations of sexual assault rolled off his back, his own Planet Hollywood admissions of his crude sexual attitudes and behavior did not derail his candidacy nor did his coarse and demeaning language with which he castigated his opponents.

Although he entered the presidency on January 21, 2017 with the lowest popularity rating of any president in modern times, his behavior continued to spiral downward in ways that would sink the electoral careers of most politicians. Anyone who voted for Trump expecting him to “pivot” and become more “presidential” had to be disappointed by the President’s first year in office. But Trump’s popularity has not shown much change, despite his unpopular stances on immigration, his partial embrace of the Ku Klux Klan in Charlottesville VA or his reference to the countries of Latin America and Africa as s*holes.

“I could stand in the middle of Fifth Avenue and shoot somebody and I wouldn’t lose any voters,” said candidate Trump during the 2016 primaries. And it appears he may be right. A Quinnipiac poll taken February 2018 showed that people had the same impression of Trump’s leadership and personal characteristics after his tumultuous first year in office as they had before the presidential election. Despite his inflammatory public statements, people did not see him as any less moral as they had prior to the election. Republican voters in particular saw the President as highly moral, giving him the same 65% approval on that dimension as they had given him prior to the election.

Many voters cast their ballots for Donald Trump because they believed he was an effective deal maker. He could get things done. His failure to pass healthcare legislation, his failure to write a legally valid immigration ban against people from predominantly Muslim

countries and his inability to secure funding for his infamous wall (especially from Mexico) did not stop people from reporting (in the same poll) that they saw him as an equally strong leader now as they did when he told the public of his extraordinary deal-making skills.

We think that many of the people who supported Donald Trump in the election felt gullible after a year of inconsistency between what he promised and what he did. People who voted for Trump knew of his past history of being a showman, a TV personality, a businessman whose casinos failed and whose 'university' failed to educate students. Nonetheless, they made their choice, hoping that his deeds as president would match his rhetoric. When they did not, they risked feeling as gullible as Orson Welles' radio audience.

One of the specific promises that characterized nearly every one of candidate Donald Trump's campaign rallies was his pledge to build a 2000 mile wall across the southern border with Mexico – combined with a rallying cry that the wall would be paid for by Mexico. There is ample evidence that at least one part of that promise will not come to fruition. As the government of Mexico has made abundantly clear, if there is a wall, it will not be paid for by Mexico. Our analysis of gullibility suggests that many Republican voters will attempt to avoid the unpleasant feeling of gullibility by denying all evidence and continuing to believe that Mexico will pay for the wall.

We are collecting data on Amazon's MTurk platform examining voters' belief in the likelihood of there being a wall paid for Mexico. We believe that more Trump voters will continue to express the belief in a Mexican sponsored wall despite the evidence to the contrary. We expect this to be true of people who made the decision to vote for Trump, including Democrats and independents. We have also asked respondents to complete a

number of individual difference scales. Embedded in the scale were items assessing people's fear of gullibility. For example, we asked, "How upset would you be if you found that you believed something that was not true?" "How uncomfortable would it make you if you trusted someone who deceived you?" "How much do you worry about appearing gullible?" We expect to find that belief in the focal question of Mexico's building the wall will be greater for Trump voters who score high on the gullibility items. It is the avoidance of gullibility that causes them to believe in the unbelievable.

In a second section of the survey, we asked people to rate the degree to which they supported a number of policy positions. One group of respondents were not told who made the statements while a second group was told that policies were positions taken by Donald Trump during the presidential campaign or during his presidency. It is our position that many of the people who voted for Donald Trump, hoping he would build the wall paid for by Mexico, renegotiate NAFTA, drain the government swamp or stand up to Russia, feel gullible. They might have known that there were reasons not to believe what they were told, but they chose to follow Trump anyway. In order to respond to the negative feeling of gullibility, we predict that they will show their enthusiastic support for the positions we listed if we attribute them to Trump. In reality, the statements we selected were all made by Hillary Clinton. We predict that Trump voters will endorse the Clinton proposals if they believe they were made by Trump. Moreover, we predict that the effect will be at least partially mediated by people's fear of appearing gullible.

Conclusion:

We believe that gullibility is a feeling state akin to the affective state of cognitive dissonance. It is negative, unpleasant, and needs to be reduced. People experience gullibility when they realize that they have been convinced to believe a proposition that was untrue and that the position fell outside of an envelope of legitimacy. On some occasions, people have no choice but to accept their gullibility. The listeners who believed Orson Welles' *War of the Worlds* broadcast eventually had to face the incontrovertible realization that Martians had not invaded our planet left many with the unpleasant feeling of having been gullible. However, many instances of false belief in a persuasive message leave room for ambiguity. Reduction of gullibility results in the ironic increase in a version of the original belief with an accompanying belief in the veracity of the communicator. The continued belief in the conspiracy of fake news may be an illustration of this phenomenon as those who seek to avoid gullibility deny evidence that potentially contradicts their beliefs.

We conclude by wondering if there is a window of time after which people will face their own gullibility. Can we continue to believe that a proposition is true even if the passage of time produces no evidence of its truth value? If the Mexican wall is never built, if NAFTA is never re-negotiated, will people who sought to avoid gullibility eventually decide that dealing with truth is better than avoiding gullibility? This is a proposition for future testing.

References

- Aronson, E. (1968). Dissonance theory: Progress and problems. In R. P. Abelson, E. Aronson, W.J. McGuire, T.M Newcomb, M.J. Rosenberg and P.H. Tannenbaum (Eds.) *Theories of cognitive consistency: A sourcebook*. Chicago: Rand McNally
- Aronson, E. (1999). Dissonance, hypocrisy and the self-concept. In J. Mills & E. Harmon-Jones (Eds.) *Cognitive dissonance: Progress on a pivotal theory in social psychology*. Washington, DC: APA
- Cantril, H. (1940). *The invasion from Mars*. Princeton, NJ: Princeton University Press.
- Cooper, J., Blackman, S. F. & Keller, K. K. (2016). *The science of attitudes*. NY: Routledge.
- Fazio, R. H., Zanna, M.P. & Cooper, J. (1977). Dissonance and self-perception: An integrative view of each theory's proper domain of application. *Journal of Experimental Social Psychology*, 13, 464-479.
- Festinger, L, Riecken, H. W. & Schachter, S. (1956). *When prophecy fails*. Minneapolis, MN: U. of Minnesota Press.
- Grice, H.P. (1975). *The logic of conversation*. In P.Cole and J.L. Morgan (Eds). *Syntax and semantics, Vol. 3 (pp. 41-58.)* New York: Academic.
- Meehl, P. E. (1956). Wanted—A good cookbook. *American Psychologist*, 11, 262-272.
- Mercier (2017). How gullible are we? A review of the evidence from psychology and social science. *Review of General Psychology*.
- Rotter, J. B. (1980). Interpersonal trust, trustworthiness, and gullibility. *American Psychologist*, 35, 1-7.
- Sherif, C.W., Sherif, M. & Nebergall, R.E. (1965). *Attitude and attitude change: The social judgment-involvement approach*. Philadelphia: Saunders.
- Stone, J. & Cooper, J. (2003). The effect of self-attribute relevance on how self-esteem moderates attitude change in the dissonance process. *Journal of Experimental Social Psychology*, 39, 508-515.