The Role of Authoritarian and Laissez-faire Leaders on Subordinate's Compliance and

Pluralistic Ignorance

Dissertation

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Abstract

The present series of studies aimed to explore the relevance of novel leadership prototypes (i.e., autonomous, paternalistic, authoritarian, and laissez-faire) on compliance and pluralistic ignorance in different cultures–Western democracies, a paternalistic society, and an informational autocracy. We recruited participants with part- or full-time jobs who categorized their boss into one of four different leadership prototypes, and then assessed compliance, and pluralistic ignorance with misinformation. Chapter 2 validated these leadership prototypes by demonstrating that people with authoritarian and laissez-faire leaders endorsed more loyalty and nepotism in their organization, and differentiated authoritarian vs. laissez-faire leaders by the frequency of interactions that they have with their subordinates. Chapter 3 demonstrated the relationship between these leadership prototypes on general, public, and private compliance with misinformation, and pluralistic ignorance: People with authoritarian and laissez-faire leaders were more likely to comply with misinformation and believed that their coworkers would be more likely to comply than themselves. We aimed to extend both the leadership literature and the social influence literature by demonstrating that the social forces of controlling leaders are related to people's compliance and pluralistic ignorance about misinformation.

Dedication

This dissertation is dedicated to my family: my dad and my mom, Jorge Ospina and María Elena Arboleda; my brother and his wife, Daniel Ospina and María José Santibáñez; my uncle and his wife, Julián Arboleda and Diana Amaya; my aunts and their loved ones, Clara Arboleda and Jaime Pérez, and Ana Arboleda and Felipe San Martín; and my grandparents, Jorge Arboleda and Humbelina Gómez. Thank you all for your constant support, love, and care.

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Publications

Ospina, J., Orosz, G., & Spencer, S. (2023). The Relation Between Authoritarian

Leadership and Belief in Fake News. *Scientific Reports*, *13*(1), Article 1.

https://doi.org/10.1038/s41598-023-39807-x

Ospina, J. P., Jiang, T., Hoying, K., Crocker, J., & Ballinger, T. (2021). Compassionate

Goals Predict COVID-19 Health Behaviors During the SARS-CoV-2 Pandemic.

PLOS ONE, *16*(8), e0255592. https://doi.org/10.1371/journal.pone.0255592

Walton, G. M., Okonofua, J. A., Remington Cunningham, K., Hurst, D., Pinedo, A.,

Weitz, E., Ospina, J. P**.**, Tate, H., & Eberhardt, J. L. (2021). Lifting the Bar: A

Relationship-Orienting Intervention Reduces Recidivism Among Children

Reentering School From Juvenile Detention. *Psychological Science*, *32*(11), 1747–

1767. https://doi.org/10.1177/09567976211013801

Fields of Study

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Chapter 1. Introduction

"[T]he fundamental concept in social science is Power, in the same sense in which Energy is the fundamental concept in physics. Like energy, power has many forms, such as wealth, armaments, civil authority, influence on opinion. No one of these can be regarded as subordinate to any other, and there is no one form from which the others are derivative… The laws of social dynamics are laws which can only be stated in terms of power, not in terms of this or that form of power." (Russell, 1938)

Imagine your boss sends you a fake news article on social media. You meet, and they ask you about this article. Would you comply with your boss? What would you think of your boss in this situation? We suggest your reactions to this situation would depend on your perceptions of your boss. If you have an *autonomous* boss who is not controlling but caring, we suggest you will have confidence and permission to disagree and explain your rationale for why the article is fake. If you have a *paternalistic* boss who is similarly controlling and caring, we suggest you have space to respectfully disagree with them (e.g., agree to disagree) or agree with them and avoid conflict, but your job would not be at risk. If you have an *authoritarian* boss who is highly controlling and not caring or a *laissez-faire* boss who is generally neither controlling nor caring, but controlling when you interact with them, however, we suggest that you will feel strong social pressure to agree with the misinformation, even when you know full well that it is fake. After all, if you disagree, you lose your job.

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Social Power as Control

Social psychologists agree that social power (i.e., control) is one of the most important and influential concepts in our discipline. Indeed, one of the tenets of social psychology is about how the power of the situation (e.g., the context or other people) can influence people's affect, cognition, and behavior. Social power has been defined broadly in three different ways, a) control over resources and outcomes: an individual's capacity to modify another by using resources or punishments, b) actual influence: when one person causes or influences the behavior of others, and c) potential influence: the capacity or possibility to influence someone else (for a review, see Fiske and Berdahl, 2007). We are not aiming to argue that one definition is better than another. Instead, we want to argue that a controlling leader is one who is *actually influencing* their subordinate in interpersonal interactions. Thus, we are equating this definition of social power as control from leaders.

Lewin et al., (1939) argued that there are broadly three different types of leaders: authoritarian, democratic (i.e., autonomous), and laissez-faire leaders. Although Lewin et al., (1939) did not explicitly argue that these leadership styles varied in the degree that they control and care for their subordinates, they do so implicitly. An authoritarian leader was highly controlling and uncaring because they made all the decisions and were not concerned with their subordinates' needs or desires. An autonomous leader was not controlling but caring because all the decisions were taken together and the subordinates' needs or desires were taken into account. A laissez-faire leader was disengaged and thus, neither controlling nor caring, and did not have any influence on their subordinates.

Their research was a naturalistic experiment with children: they did not assess these different leadership styles but simply described the leader's behavior from observations. They found that groups with authoritarian leaders tended to be more aggressive, hostile, frustrated, and apathetic compared to those with autonomous leaders. Surprisingly, we could not find other empirical research that focused on control and care as key underlying features of leaders. We aim to fill that gap by developing prototypes of leadership styles that vary in the degree that they are controlling and caring towards their subordinates. We argue that as leaders become more controlling and uncaring (authoritarian and laissez-faire) towards their subordinates when leaders interact with them, they will succumb more to their leader's social influence by a) complying more to the leader (Cialdini & Goldstein, 2004), and b) increasing pluralistic ignorance (i.e., a discrepancy or misperception) between the subordinate's perceptions and their perceptions of their coworkers (Miller, 2023).

Compliance

We suggest that there are at least three forms of social influence that powerfully create compliance when wielded by a controlling and uncaring boss: pressures to conform, obedience to authority, and expected real-life negative consequences (e.g., punishment). The higher the magnitude of these three factors, the more people would conform to believing misinformation. In the classic Asch (1956) study of conformity, a large number of people conform to judgments they know are wrong when faced with a unanimous majority, demonstrating that pressure to conform can lead people to such agreement. As Milgram (1974) demonstrated, a controlling and uncaring leader can ramp

up acquiescence to decisions that people know are wrong and these powerful findings occurred even when people knew the leader had no control over any important part of their life. And Raven et al. (1998) demonstrated that people comply with leaders because of two broad types of reasons: harsh and soft bases. Harsh bases are those where the leader uses economic and physical outcomes (e.g., making it difficult to get a promotion) to create compliance from the subordinate. How much more will controlling and uncaring leaders who can punish people in ways that are important to them create an agreement with their errant views? We suggest that the powerful forces of conformity, obedience, and real-life negative consequences will work together to cause people to agree with controlling and uncaring leaders even when they know the information they are promoting is inaccurate and wrong. That is, people will agree with fake news when controlling and uncaring leaders promote such information.

Will people comply with their boss because they genuinely believe in the article (private compliance) that their boss shared or they just agree publicly but disagree privately (public compliance)? Private compliance is informational influence and refers to genuine change in beliefs or opinions when agreeing with people who we believe have accurate information. Thus, private compliance leads to long-lasting changes in beliefs. In contrast, public compliance is normative influence and refers to a superficial change in beliefs or opinions that is expressed publicly but not privately. Thus, public compliance leads to momentary or shallow changes in beliefs (McCauley, 1989). Authoritarian and laissez-faire leaders may increase their subordinates' compliance with their requests, but we do not know whether people would actually believe in their leader's request or if they

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simply agree to follow such requests without truly believing in their leader. Will people privately or publicly comply more with their boss when they are authoritarian or laissez-faire compared to when they are autonomous or paternalistic?

Pluralistic Ignorance

If people are publicly or privately complying with their leader, are there misperceptions in their own beliefs compared to their perceptions of their coworkers' beliefs? Pluralistic ignorance refers to a situation in which a group of people systematically misestimate or misperceive their peer's opinions, beliefs, or behaviors (Miller, 2023). Thus, it may be plausible that people working for authoritarian or laissez-faire leaders may be more likely to express pluralistic ignorance. Yet, we do not know whether pluralistic ignorance will occur for normative beliefs (public compliance) or informational beliefs (private compliance). That is, we may find a discrepancy in people's normative beliefs or in people's informational beliefs depending on the leader's style.

Other Leadership Characteristics

Past research has also demonstrated the importance of other leadership characteristics. For example, leaders vary in the extent that they are competent or warm (Cuddy et al., 2008; Cuddy et al., 2009). They can also vary in the extent that they are relationship- or task-oriented (Fleishman, 1953; Northouse, 2021). And they can also vary in the extent that they would want to transform the culture (i.e., transformational leadership; Bass, 1999; Rafferty & Griffin, 2004). To demonstrate the unique contribution of our leadership styles, we included the most relevant leadership

characteristics in our studies and controlled for them in robustness check analyses (see

Appendix B).

<div align="center">**Cross-cultural Differences**</div>

In western democracies, we found a strong effect of leadership style on

compliance such that people with authoritarian leaders were more likely to be expected to

openly agree with their leaders compared to those with paternalistic or autonomous

leaders (Ospina et al., 2023). Would these effects replicate, be stronger, or weaker in

other societies? We aim to explore this question by recruiting participants from a

paternalistic society (i.e., Singapore) and an informational autocracy (i.e., Hungary).

Although both Singapore and Hungary are considered democracies, both countries have

highly controlling governments. The Singaporean government is highly controlling in

policies and regulations because the government believes they know what is best for their

citizens (similar to our description of a paternalistic leader, see Table 2) . In contrast, the

Hungarian government is highly controlling of the information that citizens consume to

maintain the status quo and socio-economic inequalities that benefit those in power

(Krekó, 2022). Indeed, in recent decades, the Hungarian government has launched pro-

governmental disinformation campaigns in the mainstream media to maintain their power

(Demeter, 2018; Guriev & Treisman, 2022; Krekó & Enyedi, 2018). Thus, although both

are controlling, the experience of living in these countries is very different. This can be

reflected both by the GDP per capita and the life expectancy in these two countries. In

recent years, Singapore had a GDP per capita of USD$82,807.60 and a life expectancy of

83, whereas Hungary had a GDP per capita of USD$18,390.20 and a life expectancy of

74 (World Bank, 2021, 2022). Although we do not have a clear hypothesis of whether the compliance effects from authoritarian leaders in a democracy, a paternalistic society, or an informational autocracy would be similar, weaker, or stronger, we expect that authoritarian leaders would make people more compliant compared to autonomous or paternalistic leaders.

Present Research

The present series of studies aimed to explore the relevance of novel leadership prototypes (i.e., autonomous, paternalistic, authoritarian, and laissez-faire) in different cultures–Western democracies such as the United States, Canada, United Kingdom, and Australia; a paternalistic society such as Singapore; and an informational autocracy such as Hungary. We recruited participants from Prolific and Qualtrics Panels who had either part-time or full-time jobs and asked them to categorize their immediate superior into one of four different leadership prototypes, the levels of control and care of their superiors, characterize them along other relevant leadership dimensions, and also assessed other measures (for all the measures included in these studies, refer to Appendix A). Chapter 2 validates these leadership prototypes by providing evidence of convergent and divergent validity, and differentiates authoritarian vs. laissez-faire leaders by the frequency of interactions that they have with their subordinates. Chapter 3 provides evidence of predictive validity by demonstrating the relationship between these leadership prototypes on general, public, and private compliance with misinformation and pluralistic ignorance. We aim to extend both the leadership literature and the social influence literature by demonstrating that the social forces of controlling and uncaring leaders are related to

people's compliance and pluralistic ignorance about misinformation. In sum, people may

comply with fake news because of the power of the situation created by controlling and

uncaring leaders.

Chapter 2. Validation of Measures

Overview

In Chapter 2, we validated the leadership prototypes and provided evidence of convergent and divergent validity (Studies 1, 2, 3, and 4), and differentiated authoritarian vs. laissez-faire leaders by frequency of interactions with their subordinates (Study 4).

Methods

Participants and Data Quality

In Study 1, we collected a sample of 501 respondents from Western democracies, such as the UK, US, Australia, and Canada in Prolific, an online platform that connects researchers with participants who get paid cash for taking part in the research. The sample was not representative of the UK, US, Australian and Canadian populations with regard to age, sex, and ethnicity. We did not drop any participants as they went through the attention and quality check questions. All participants passed the reCaptcha to check whether there were any bots and we had two English comprehension questions. Although some participants failed these questions, when we reviewed open-ended questions pertaining to the study, their responses were clear and thoughtful. Statistical analyses were conducted on 501 participants ($n_{US}=126$; $n_{Canada}=125$, $n_{Australia}=125$, $n_{UK}=125$) who were screened with several questions to gather data only from respondents with part-time (28.5%) or full-time (71.5%) jobs, have the nationality of their respective country (100%), and speak English as their primary language (100%). Participants' ages ranged from 18 to 73 years of age ($M=36.25$ years, $SD=11.88$ years). The majority of

participants identified as women (60.3%), 38.1% identified as men, and 1.6% identified with another identity. Most of the participants were non-Hispanic White (78.4%), and the remaining 21.6% reported another race (i.e., Black, Asian, Hispanic, Indian, Middle Eastern, Native American, and Pacific Islander). The majority of the participants reported a liberal political ideology (69.5%), 14.2% were conservative, and 16.4% were independent. Almost half of the participants reported their parents or guardians graduated from college with a four-year college degree (43.5%), 53.7% had no college degree, and 2.8% chose not to answer, did not know, or reported the question was not applicable to them. Based on participant responses, 23.8 percent have worked in their current position for 0–1 year, 25.5% for 2–3 years, 17.0% for 4–5 years, 18.4% for 6–10 years, 6.4% for 11–15 years, 5.8% for 16–20 years, and 3.2% for more than 20 years.

In Study 2, we collected a sample of 511 respondents from Singapore, a paternalistic society, in Qualtrics Panels, an online platform similar to Prolific. The sample was not representative of the Singaporean population with regard to age, sex, and ethnicity. We dropped 40 participants who had duplicated IP addresses, failed two attention checks (i.e., We had two items included in some of the measures: "If you're reading this statement, please select 'Somewhat agree'"), or responded that they preferred that we do not use their data in our analyses (i.e., We included this question at the end of the survey: "In your honest opinion, should we use your data in our analysis?"). We also dropped 13 participants who responded that they did not have a full- or part-time job. Thus, statistical analyses were conducted on 428 participants. Participants' ages ranged from 25 to 59 years of age (M=39.77 years, SD=9.22 years). More than half of

participants identified as women (52.3%), 47.7% identified as men. Most of the participants were Chinese (86%), and the remaining 14% reported another ethnicity (i.e., Indian, Malay, and other). Almost a third of the participants reported a liberal political ideology (29.4%), 23.4% were conservative, 32.9% were independent, and 14% did not identify with any political ideology. More than half of the participants reported that they graduated from college with a four-year college degree (55.6%), 30.6% had no college degree, and 13.8% had a postgraduate degree. Based on participant responses, 13.6 percent have worked in their current position for 0–less than 2 years, 17.1% for 2–less than 4 years, 19.4% for 4–less than 6 years, 22% for 6–less than 10 years, 14.3% for 10–less than 15 years, 8.4% for 15–20 years, and 5.4% for more than 20 years.

In Study 3, we collected a sample of 237 respondents from Hungary, an informational autocracy, in Prolific. This study was translated to Hungarian. The sample was not representative of Hungarian populations with regard to age, sex, and ethnicity. We only removed one participant who completed the survey twice. All participants passed the reCaptcha to check whether there were any bots. Some participants failed the attention checks, but when we reviewed open-ended questions pertaining to the study, their responses were clear and thoughtful, so we decided to keep them. Thus, statistical analyses were conducted on 236 participants who were screened with several questions to gather data only from respondents with part-time (22%) or full-time (77.5%) jobs, have a Hungarian nationality (100%), and speak Hungarian as their primary language (100%). Participants' ages ranged from 19 to 65 years of age (M=29.14 years, SD=7.83 years). The majority of participants identified as men (57.6%), 40.7% identified as women, and

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0.8% identified with another identity. Most of the participants were non-Hispanic White (98.3%), and only 1.7% reported another ethnicity. Almost half of the participants reported a liberal political ideology (47.9%), 11.9% were conservative, 20.3% were independent, and 19.5% did not identify with any political ideology. Almost a quarter of the participants reported that they graduated from college with a four-year college degree (23.3%), 54.7% had no college degree, and 22% had a postgraduate degree. Based on participant responses, 32.6 percent have worked in their current position for 0–1 year, 30.1% for 2–3 years, 18.6% for 4–5 years, 10.6% for 6–10 years, 4.7% for 11–15 years, 2.1% for 16–20 years, and 1.3% for more than 20 years.

In Study 4, we conducted a preregistered replication and collected a sample of 406 respondents from the US in Prolific. The sample was not representative of the US populations with regard to age, sex, and ethnicity. We dropped three participants who answered that they preferred that we do not use their data, and one participant who did not select a prototype of leadership. All participants passed the reCaptcha to check whether there were any bots and we had two English comprehension questions. Although some participants failed these questions, when we reviewed open-ended questions pertaining to the study, their responses were clear and thoughtful. Thus, statistical analyses were conducted on 402 participants who were screened with several questions to gather data only from respondents with part-time (15.9%) or full-time (82.6%) jobs, have an American nationality (100%), and speak English as their primary language (100%). Participants' ages ranged from 19 to 86 years of age (M=41.34 years, SD=12.48 years). Almost half of participants identified as women (47%), 52.2% identified as men, and

0.5% identified with another identity. More than half of the participants were non-Hispanic White (57.5%), and the remaining 42.5% reported another race (i.e., Black, Asian, Hispanic, Indian, Middle Eastern, Native American, and Pacific Islander). The majority of the participants reported a liberal political ideology (56.5%), 26.6% were conservative, and 16.9% were independent. Almost half of the participants reported that they graduated from college with a four-year college degree (44.5%), 33.8% had no college degree, and 21.6% had a postgraduate degree. Based on participant responses, 12.7 percent have worked in their current position for 0–less than 2 years, 14.4% for 2–less than 4 years, 20.1% for 4–less than 6 years, 24.4% for 6–less than 10 years, 12.4% for 10–less than 15 years, 6% for 15–20 years, and 10% for more than 20 years.

For a summary of the sample of each study, please refer to Table 1. All studies were conducted in accordance with the Declaration of Helsinki and with the approval of The Ohio State University's ethical committee as well as the informed consent of the participants

Table 1. Summary of samples of studies 1 to 4.

Countries and Platform	Type of Job %	*N*	Age *M* (*SD*)	Gender %	Race/ethnicity %	Political affiliation %
Study 1: Western democracies (US, UK, Can., Aus.; Prolific)	Part: 28.5 Full: 71.5	501 (~125 per country)	36.3 (11.9)	Women: 60.3 Men: 38.1 Other identity: 1.6	White: 78.4 Other: 21.6	Liberal: 69.5 Conservative: 14.2 Independent: 16.4
Study 2: Paternalistic Society (Singapore; Qualtrics Panels)	Part: 5.6 Full: 94.4	428	39.8 (9.2)	Women: 52.3 Men: 47.7	Chinese: 86 Indian: 3.3 Malay: 8.9 Other: 1.9	Liberal: 29.4 Conservative: 23.4 Independent: 32.9 Not identified: 14
Study 3: Informational autocracy (Hungary; Prolific)	Part: 22 Full: 77.5	236	29.1 (7.8)	Women: 40.7 Men: 57.6 Other identity: 0.8	White: 98.3 Other: 1.7	Liberal: 47.9 Conservative: 11.9 Independent: 20.3 Not identified: 19.5
Study 4: Preregistered Replication in the US (Prolific)	Part: 15.9 Full: 82.6	402	41.3 (12.5)	Women: 47.0 Men: 52.2 Other identity: 0.5	White: 57.5 Other: 42.5	Liberal: 56.5 Conservative: 26.6 Independent: 16.9

Measures

Participants first selected the description that best fit their boss, then assessed the frequency of interactions. Afterwards, we counterbalanced the order of a) the leader's care and control, b) loyalty and nepotism in their organization, and c) other leadership characteristics and practices. Measures across all studies can be found on Appendix A.

Leadership styles. Inspired by Hazan and Shaver (1987), we developed prototypes of leaders in which participants selected the description that best fits the boss or supervisor they interacted with the most (see Table 2 for prototypes of autonomous, paternalistic, authoritarian, and Llaissez-faire leaders). These descriptions varied in values (i.e., loyalty, creativity, and hard work), who makes the decisions in the company, how the employee can be successful in the company, how help is received, and whether the system can change or not. Participants only read the descriptions of their bosses and not the labels (e.g., authoritarian). Our objective was to ensure that participants maintained a clearly defined superior in mind while responding to the survey. Thus, after participants selected the description, they were asked to provide a name or nickname of their boss, and we piped that name or nickname to remind participants that they were thinking about a specific boss (and not multiple bosses or bosses in general) as they completed the survey.

Table 2. Prototypes of Leadership Styles and Their Descriptions.

Please **take your time** and **read carefully** the following descriptions.
There are many types of bosses. We are going to describe four broad types of bosses. We want you to **select the description that best fits the boss or supervisor that you interact most frequently with**. If you have multiple supervisors, or if your organization changes roles depending on projects, please think about the leader with the most significant impact on your daily work. Even if your boss left the job recently, please think about them when selecting the descriptions. Which of the following best describes your boss? (Please continue scrolling to see all the different types of bosses)

Autonomous: *My boss values input from workers, hard work, and creativity. When ideas are discussed, the most important thing is that people bring their best ideas, and they are heard. People who disagree with my boss are encouraged to express their ideas fully and their ideas are respected. The way to be successful is to bring forward good ideas and work hard to implement them. My boss is eager to provide help, and help comes with no strings attached. My boss encourages challenging the system to develop fair and more equitable rules.*

Paternalistic: *My boss values loyalty, hard work, and creativity. When ideas are discussed, people's voices are heard, but my boss makes the final decision. People who disagree with my boss can still succeed if they follow the rules. There are several ways to be successful (e.g., be loyal, hardworking, or creative), but you have to win over my boss to be successful. My boss is eager to provide help, but receiving help comes with rules that you have to follow. My boss discourages challenging the system, and this can only happen when going through proper channels.*

Authoritarian: *My boss values loyalty over hard work and creativity. When ideas are discussed, the most important thing is that people agree with my boss. People who disagree with my boss have no place in the organization and are cut off from important information. The way to be successful is to agree with my boss. My boss is eager to provide help, but receiving help comes with strings attached. Only my boss or their superiors can change the system, no one else can.*

Laissez-faire: *My boss doesn't value input from workers, nor does he/she care much about the quality of ideas people have, their creativity, or their loyalty. We rarely discuss ideas because we rarely meet and there is little disagreement or agreement. My boss plays little to no role in whether people are successful in the company. My boss is*

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rarely available to help, and I need to figure things out by myself. I can't see my boss ever wanting to change the existing system.

Loyalty. Participants indicated the extent that people in their organization are loyal to each other with a six-item measure (Ferris & Kacmar, 1992; e.g., "*Favoritism rather than merit determines who gets ahead at my workplace*", "*It is safer to agree with managers than to say what you think is right*") using a five-point scale (1=*Strongly disagree* to 5=*Strongly agree*).

Nepotism in organizations. Participants indicated the extent that senior management positions in their organization are chosen based on nepotism with a three-item measure (Van de Vliert, 2011; e.g., "*Senior management positions in your organization are usually held by professional managers chosen based on [relatives/connections to the boss/friends]*") using a six-point scale (1=*Never* to 6=*Very frequently*).

Competence of leader. Participants indicated the competence of their boss with a three-item measure (Cuddy et al., 2009; e.g., *"How confident is your boss?"*, *"How skillful is your boss?"*) using a five-point scale (*1=Not at all* to *5=Extremely*).

Warmth of leader. Participants indicated the warmth of their boss with a three-item measure (Cuddy et al., 2009; e.g., *"How friendly is your boss?"*, *"How sincere is your boss?"*) using a five-point scale (*1=Not at all* to *5=Extremely*).

Transformational leadership. Participants indicated the extent that their boss engaged in transformational leadership behaviors with a 10-item measure (Rafferty & Griffin, 2004; e.g., *"[My boss] challenges me to think about old problems in new ways"*,

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"*[My boss] says things that make employees proud to be a part of this organization*")

using a five-point scale (1=*Strongly disagree* to 5=*Strongly agree*).

      Task-oriented leadership. Participants indicated the extent that their boss engaged

in task-oriented behaviors with a four-item measure (Northouse, 2021; e.g., *"My boss*

urges others to concentrate on the work at hand", *"My boss sets timelines for when the*

job needs to be done") using a five-point scale (1=*Never* to 5=*Always*).

      Relationship-oriented leadership. Participants indicated the extent that their boss

engaged in relationship-oriented behaviors with a four-item measure (Northouse, 2021;

e.g., "*My boss tries to make the work fun for others*", "*My boss helps group members get*

along") using a five-point scale (1=*Never* to 5=*Always*).

      Harsh bases. Participants indicated the extent that they will comply with their

leader because of economic and physical outcomes that are based on legitimacy,

coercion, and rewards with an 18-item measure (Raven et al., 1998; e.g., *"My supervisor*

could make it more difficult for me to get a promotion", "*My supervisor had the right to*

request that I do my work in a particular way") using a seven-point scale (1=*Definitely*

not a reason for complying to 7=*Definitely a reason for complying*).

      Soft bases. Participants indicated the extent that they will comply with their

leader because of social outcomes that are based on competence and respect with an 15-

item measure (Raven et al., 1998; e.g., *"My supervisor probably had more technical*

knowledge about this than I did", "*My supervisor made me feel more valued when I did*

as requested") using a seven-point scale (1=*Definitely not a reason for complying* to

7=*Definitely a reason for complying*).

Leadership practices inventory. Participants indicated the extent that their boss

engages in exemplar practices such as modeling the way, inspiring a shared vision,

challenging the process, enabling others to act, and encouraging the heart with a 30-item

measure (Kouzes & Posner, 2003; e.g., "*My immediate boss, [boss name], asks for*

feedback on how his/her actions affect people's performance", "*My immediate boss,*

[boss name], gives people choice about how to do their work") using a ten-point scale

(1=*Almost never* to 10=*Almost always*).

Personal sense of power. Participants indicated the extent that they perceive a

personal sense of power in their relationship with their boss with a eight-item measure

(Anderson et al., 2012; e.g., "*In my relationship with my boss, [boss name], I can get*

him/her/them to listen to what I say", "*In my relationship with my boss, [boss name], if I*

want to, I get to make the decisions") using a seven-point scale (1=*Strongly disagree* to

7=*Strongly agree*).

Leader's control. Inspired by Fiske and Berdahl (2007) definition of actual

influence (i.e., when one person causes or influences the behavior of others), we defined

a controlling leader as the extent that the employee perceives that they are *actually*

influenced by their superior in interpersonal interactions. Thus, we developed an eight-

item measure (e.g., "When I interact with my immediate boss, [boss name], what is most

important to them is that I do what they want me to do", "When I interact with my

immediate boss, [boss name], they expect me to agree with them") using a nine-point

scale (1=*Almost never [less than 10% of the time]* to 9= *Almost always [more than 90%*

of the time]).

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Leader's care. A caring leader was defined as the employee's perception that the leader demonstrates concern and supports them both personally and professionally. We developed a 16-item measure (e.g., "My immediate boss, [boss name], cares about me as an individual", "My immediate boss, [boss name], cares about my professional goals") using a nine-point scale (1=*Almost never [less than 10% of the time] to 9= Almost always [more than 90% of the time]*).

Frequency of interactions. We developed three items to assess *actual* ("*How frequently do you interact with your boss, [boss name] (whether in person or online)?*"), *desired* ("*How frequently would you like to interact with your boss, [boss name] (whether in person or online)?*"), and *ideal* ("*Ideally, if you had a good boss, how frequently would you like to interact with that boss (whether in person or online) to effectively do your work?*") interactions with their leader, using a nine-point scale (1=*Multiple times a day*, 9=*Almost never*).

Results

Distribution of Leadership Styles

Table 3 shows the distribution of leadership styles by study. In Study 1, we only developed the prototypes of autonomous, paternalistic, and authoritarian leaders. Thus, we do not have any data about laissez-faire leaders in this sample. Across studies, close to half of the participants described their boss as autonomous, paternalistic was the next most common description, followed by laissez-faire, and lastly, by authoritarian.

Table 3. Distribution of Leadership Styles by Study.

	Study 1: Western democracies (US, UK, Can., Aus.)		Study 2: Paternalistic society (Singapore)		Study 3: Informational Autocracy (Hungary)		Study 4: Preregistered Replication (US)	
Leadership Style	*N*	%	*N*	%	*N*	%	*N*	%
Autonomous	268	53.5	180	42.1	91	38.6	204	50.7
Paternalistic	166	33.1	128	29.9	96	40.7	123	30.6
Authoritarian	67	13.4	51	11.9	25	10.6	30	7.5
Laissez-faire	---	---	69	16.1	24	10.2	45	11.2
Total *N*	501		428		236		402	

Convergent and Divergent Validity of Leadership Styles

Table 4 provides evidence of convergent and divergent validity of these leadership styles in Study 4. We conducted OLS linear regressions with leadership styles as the categorical independent variable predicting each outcome in Table 4. To demonstrate convergent validity, we found that people with authoritarian and laissez-faire leaders reported that loyalty is more valued in their organization, and that senior management roles are more frequently chosen based on nepotism, than those with paternalistic or autonomous leaders. We also found linear trends in leadership characteristics such that people with autonomous leaders were more likely to perceive their leader as competent, warm, transformational, and relationship-oriented, followed by those with paternalistic, authoritarian, and finally those with laissez-faire leaders were the least likely to be perceived as having any of these characteristics. We also found a similar linear trend in leadership practices such that people with autonomous leaders were more

likely to use soft bases, engage in exemplar practices, and provide a higher personal sense

of power to their employees, followed by those with paternalistic, authoritarian, and

finally those with laissez-faire leaders were the least likely to engage in any of these

practices. To demonstrate divergent validity, we only found differences in task-oriented

leadership and harsh bases between people with laissez-faire leaders and all the other

leadership styles. We found the same pattern of results in study 1 (see Table 5 in

Appendix B). In study 2, we found a very similar pattern of results, except that people

with autonomous leaders rated nepotism and their leader's competence similarly as those

with paternalistic leaders (see Table 6 in Appendix B). In study 3, we found a very

similar pattern of results, except that people with laissez-faire leaders rated warmth,

transformational, and relationship-oriented leadership similarly as those with

authoritarian leaders (see Table 7 in Appendix B).

Table 4. Convergent and Divergent Validity of Leadership Styles in Study 4.

Variable	Autonomous M (*SD*)	Paternalistic M (*SD*)	Authoritarian M (*SD*)	Laissez-faire M (*SD*)	F (3, 398)
Loyalty	2.27$_a$ (0.78)	2.94$_b$ (0.74)	3.69$_c$ (0.71)	3.91$_c$ (0.71)	81.70
Nepotism in Organizations	2.78$_a$ (1.3)	3.33$_b$ (1.28)	4.16$_c$ (1.05)	3.73$_{b, c}$ (1.34)	15.47
Leader's Competence	4.47$_a$ (0.61)	4.04$_b$ (0.74)	3.53$_c$ (0.92)	2.47$_d$ (1.18)	91.86
Leader's Warmth	4.31$_a$ (0.68)	3.57$_b$ (0.96)	2.53$_c$ (1.26)	1.72$_d$ (0.87)	137.32
Transformational Leadership	4.23$_a$ (0.57)	3.77$_b$ (0.76)	2.71$_c$ (0.9)	1.94$_d$ (0.74)	163.60

Task-oriented Leadership	3.73$_a$	3.8$_a$	3.59$_a$	3.16$_b$	
	(0.7)	(0.74)	(0.72)	(0.92)	8.86
Relationship-oriented Leadership	3.94$_a$	3.31$_b$	2.28$_c$	1.56$_d$	
	(0.69)	(0.86)	(1.04)	(0.74)	136.52
Harsh Bases	4.02$_a$	4.2$_a$	4.06$_a$	3.25$_b$	
	(1.18)	(1.11)	(1.21)	(1.05)	7.59
Soft Bases	5.42$_a$	4.93$_b$	3.68$_c$	2.62$_d$	
	(0.95)	(1.09)	(1.51)	(1.32)	93.46
Leadership Practices Inventory	8.01$_a$	6.8$_b$	4.48$_c$	2.64$_d$	
	(1.42)	(1.67)	(2.33)	(1.44)	164.91
Personal Sense of Power	5.06$_a$	4.22$_b$	2.82$_c$	2.21$_d$	
	(0.96)	(1.16)	(1.38)	(1.19)	107.18
Leader's Control	4.44$_a$	5.88$_b$	7.27$_c$	7.38$_c$	
	(1.91)	(1.65)	(1.63)	(1.29)	53.64
Leader's Care	7.50$_a$	6.44$_b$	4.13$_c$	2.84$_d$	
	(1.33)	(1.54)	(1.97)	(1.53)	149.59
Actual Interactions	2.32$_a$	2.43$_a$	2.17$_a$	4.02$_b$	
	(1.54)	(1.74)	(1.74)	(2.14)	13.33
Desired Interactions	2.47$_a$	2.85$_a$	5.07$_b$	6.67$_c$	
	(1.61)	(1.96)	(2.86)	(2.60)	66.59
Ideal Interactions	2.45$_a$	2.54$_a$	2.87$_{a, b}$	3.20$_b$	
	(1.65)	(1.64)	(2.39)	(2.05)	2.55

Note. Means with different subscript letters (i.e., a, b, c, or d) represent a significant difference ($p < .05$) between those leadership styles.

Differentiating Authoritarian vs. Laissez-faire Leaders

In terms of leader's care, we found a linear relationship with leadership styles such that autonomous leaders were perceived as more caring, followed by paternalistic, authoritarian, and finally laissez-faire leaders were perceived as less caring. But in terms of control, we found that *both* authoritarian and laissez-faire leaders were perceived as equally highly controlling, followed by paternalistic, and lastly autonomous leaders. Why

are laissez-faire leaders perceived as equally controlling as authoritarian leaders? Our leadership styles measure clearly describes laissez-faire leaders as disengaged, rarely being available, and not having too much influence in the company, whereas authoritarian leaders are clearly controlling, making most of the decisions, and being influential in the company. This apparent paradox can be explained by the frequency of interactions that leaders have with their subordinates. As shown in Table 4, there are no differences in the *actual* interactions that people had with their autonomous, paternalistic, or authoritarian leaders, where, on average, people interacted with their boss between once a day and multiple times a week (see Appendix A for full scale). In contrast, we found significant differences between laissez-faire leaders and all other leadership styles such that people with these leaders tend to *actually* interact once a week with their boss.

Furthermore, we found that people with laissez-faire leaders would *desire* to interact much less with their leaders compared to other leadership styles (see Table 4). But when we look at the difference between *actual* and *desired* interactions for each leadership style (contrasts of each leadership style are computed against 0, not between leadership styles. Average differences higher than 0 suggest people would *desire* to interact less than what they *actually* interact with their boss), we found that people would *desire* to interact less with both authoritarian and laissez-faire leaders. That is, people with authoritarian leaders would *desire* to interact less with their boss, from once a day, on average, to multiple times a month ($b=2.90$, $t(398)=9.43$, $p<.001$). And those with laissez-faire leaders would want to interact even less with their boss, from once a week, on average, to multiple times a year ($b=2.64$, $t(398)=10.53$, $p<.001$).

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Finally, we found that people with laissez-faire leaders would want to interact with an *ideal* boss less than those with autonomous and paternalistic, but on similar levels with authoritarian leaders (see Table 4). But when we look at the difference between *actual* and *ideal* interactions for each leadership style (contrasts of each leadership style are computed against 0, not between leadership styles. Average differences higher than 0 suggest people would want to interact *less* with an *ideal* boss than what they *actually* interact with their current boss, whereas average differences lower than 0 suggest people would want to interact *more* with an *ideal* boss than what they *actually* interact with their current boss), we found that people would want to interact *less* with their *ideal* boss compared to their authoritarian boss, and *more* with their *ideal* boss compared to their laissez-faire boss. That is, people with authoritarian leaders would want to interact *less* with their *ideal* boss compared to their current boss, from once a day, on average, to multiple times a week ($b=0.70$, $t(398)=2.87$, $p=.004$). And those with laissez-faire leaders would want to interact *more* with their *ideal* boss compared to their current boss, from once a week, on average, to multiple times a week ($b=-.82$, $t(398)=4.13$, $p<.001$).

Discussion

Across four studies, we found that people with autonomous leaders have a better workplace experience followed by those with paternalistic, authoritarian, and those with laissez-faire leaders reported a more negative workplace experience. People with laissez-faire and authoritarian leaders were more likely to agree that loyalty matters in their organization, and that senior management positions are chosen based on nepotism, compared to those with autonomous and paternalistic leaders. Thus, this seems to suggest

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that laissez-faire and authoritarian leaders may maintain the status quo, and hence, their positions of power, by emphasizing loyalty and nepotism in their organizations.

Laissez-faire and authoritarian leaders were also perceived as less skilled than those with autonomous and paternalistic leaders. Laissez-faire and authoritarian leaders were rated as less competent, warm, transformational, and relationship-oriented than those with autonomous and paternalistic leaders. Laissez-faire and authoritarian leaders were also less likely to engage in leadership behaviors that are beneficial for employees such as using soft bases, engaging in exemplar practices, and providing a higher personal sense of power, compared to those with autonomous and paternalistic leaders. Thus, this also seems to suggest that laissez-faire and authoritarian leaders may maintain the status quo of their organization that advantages them by doing the bare minimum to maintain their jobs and by taking away the social power or influence of their subordinates.

We also found some cross-cultural differences between western democracies, a paternalistic society (Singapore), and an informational autocracy (Hungary). In Singapore, people with autonomous and paternalistic leaders rated equally nepotism in organizations and leader's competence, whereas in western democracies and in Hungary, those with autonomous leaders believed that nepotism is less used in their organization, and that these leaders are more competent, compared to those with paternalistic leaders. This seems to suggest that, in Singapore, autonomous leaders could be successful without needing to excel individually, and paternalistic leaders could be successful without nepotism. Taken together, these differences may highlight Singapore's interdependent culture, where individual competence or standing out may be less valued (Markus &

Kitayama, 2010), and thus, people may not need to be as competent or to showcase themselves to advance in their companies.

We also found cross-cultural differences when comparing Hungary with Singapore and the US. In Hungary, we found that people with laissez-faire leaders were rated as equally warm, transformational, and relationship-oriented as authoritarian leaders. In contrast, in Singapore and in the US replication, we found that people with laissez-faire leaders had lower ratings in these measures than those with authoritarian leaders. This seems to suggest that laissez-faire leaders in Hungary can maintain similar relationships with their subordinates as authoritarian leaders, and thus, maintain their positions of power without needing to actively enforce their control (see below). Furthermore, these findings could also highlight cross-cultural differences in these societies. In Singapore and the US, laissez-faire leaders tend to have worse relationships with their subordinates, probably because they are being held accountable for their actions or inactions. But because the living conditions in Hungary are worse than in Singapore or the US, laissez-faire leaders can evade accountability without being perceived negatively by their subordinates.

So far, it seems that laissez-faire and authoritarian leaders are very similar to each other. Yet, we described authoritarian leaders as generally highly controlling, whereas laissez-faire leaders are disengaged. Nonetheless, we found that both are equally rated as highly controlling. How can laissez-faire leaders be described as disengaged and controlling at the same time? We argue that this apparent paradox can be explained by the frequency of interactions with their subordinates and the level of specificity (general

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vs specific) of the control of leaders. First, we found only significant differences in *actual* interactions between laissez-faire leaders and all other leadership styles, suggesting that people with these leaders meet much less with them than people with other styles of leaders. Second, our leadership styles measure and the dimension of control are tapping into different levels of specificity of control. Our leadership styles assess *general* levels of control because it is a description of how the boss usually *is*. That is, it assesses what leaders value, how they make decisions, how can their employees be successful in the company, how they provide help, and whether they believe they can change the system or not. The dimension of control, however, is more *specific* because it taps only on the behaviors of the leader when interacting with their subordinates. This can explain why we found similarities between authoritarian and laissez-faire leaders in their levels of control. Although laissez-faire leaders are *generally* disengaged, as described in the prototypes, they *are specifically* controlling in the fewer moments when they *actually* interact with their subordinates. Authoritarian leaders, in contrast, are *generally* controlling, as described in the prototypes, and they are also *specifically* controlling when they *actually* interact with their subordinates. Taken together, the key difference seems to be that authoritarian leaders *actively* control their employees by interacting with them regularly and making people comply with them, whereas laissez-faire leaders *passively* control their employees by disengaging most of the time but making people comply with them when they are around.

We also found similarities and differences between authoritarian and laissez-faire leaders in their *desired* interactions and interactions if people had an *ideal* boss. We

found similarities in *desired* interactions such that people with both authoritarian and laissez-faire leaders would desire to interact less with their leader, although those with laissez-faire leaders would desire to interact even less with their leader than those with authoritarian leaders. We did not find differences on *ideal* interactions such that people with either authoritarian and laissez-faire leaders are equally likely to want to interact with an *ideal* boss multiple times a week, on average. But when we look at the difference between *ideal* and *actual* interactions, this suggests that those with authoritarian leaders would want to interact *less* with an *ideal* boss than with their current boss, whereas those with laissez-faire leaders would want to interact *more* with an *ideal* boss than with their current boss. These findings seem to suggest that both authoritarian and laissez-faire leaders are perceived as controlling when they *actually* interact with their subordinates. This makes people *desire* less interactions with either type of boss, but people also recognize that if they could have an *ideal* boss, they would prefer to meet *less* with them if they have experience with an authoritarian leader, whereas those with laissez-faire leaders would want to meet more with an *ideal* boss.

Chapter 3. Social Influence

Overview

In Chapter 3, we provided evidence of predictive validity by demonstrating the relationship between leadership styles on general compliance with misinformation (Studies 1, 2, 3, and 4), whether compliance is public or private (Study 4), and pluralistic ignorance (Study 4). For Study 4, we preregistered the effect of leadership styles on expectations to agree with misinformation such that people with authoritarian leaders will be more likely to be expected to agree with fake news articles, followed by those with paternalistic leaders, and those with autonomous leaders will be less likely to be expected to agree with fake news articles (see https://osf.io/uce3s).

Measures

Expectation to agree with fake news article. Participants were presented with four fake politically-neutral news articles headlines (Pennycook & Rand, 2019; e.g., "*The Controversial Files: Fake Cigarettes are Being Sold and Killing People, Here's How to Spot Counterfeit Packs*"; "*Man Kicked Out Golden Corral After Eating 50LBS of Food; Sues for $2 Million*") and indicated the extent they would be expected to openly agree with their boss on each news headline (i.e., "*Imagine your boss sent this article to one of your social media accounts, you meet with them, and they ask you about this article. To what extent would you be expected to openly agree with your boss, [boss name]?*") using a five-point scale (1=*Not at all* to 5=*Extremely*, α=0.90).

Coworker's expectation to agree with fake news article. Participants also

assessed the extent that their coworkers would be expected to openly agree with their

boss on the same news headlines (i.e., "*Imagine your boss sent this article to your*

coworkers' social media accounts, each of them meet with your boss, and your boss ask

them about the article. To what extent would your coworkers be expected to openly agree

with your boss, [boss name]?") using a five-point scale (1=*Not at all* to 5=*Extremely*).

Hiding disagreement with fake news article. Participants assessed the extent that

they would hide their disagreement with their boss on the same news headlines (i.e., "*If*

your boss, [boss name], would bring up the article in a meeting with you and your

coworkers, would you hide your disagreement with your boss?") using a five-point scale

(1=*Not at all* to 5=*Completely*).

Coworker's hiding disagreement with fake news article. Participants also

assessed the extent that their coworkers would hide their disagreement with their boss on

the same news headlines (i.e., "*If your boss, [boss name], would bring up the article in a*

meeting with you and your coworkers, would your coworkers hide their disagreement

with your boss?") using a five-point scale (1=*Not at all* to 5=*Completely*).

Genuine belief in fake news article. Participants assessed the extent that they

would genuinely believe in the same news headlines that their boss shared (i.e., "*How*

much would you genuinely believe in the article that your boss, [boss name], shared?")

using a five-point scale (1=*Not at all* to 5=*Completely*).

Coworker's genuine belief in fake news article. Participants assessed the extent

that their coworkers would genuinely believe in the same news headlines that their boss

shared (i.e., "*How much would your coworkers genuinely believe in the article that your boss, [boss name], shared?*") using a five-point scale (1=*Not at all* to 5=*Completely*).

Accuracy of fake news article. Participants rated the accuracy of each headline using a four-point scale (Pennycook & Rand, 2019; i.e., "*To the best of your knowledge, how accurate is the claim in the above headline?*", 1=*Not at all accurate* to 4=*Very accurate*).

Education. Participants assessed their level of education using a nine-point scale (1=*Primary school* to 9=*Doctorate degree [e.g., Ph.D. or Ed.D.]*).

Socio-economic status (SES). SES was assessed with the subjective SES scale from the MacArthur Foundation Research Network on Socioeconomic Status and Health socio-demographic questionnaire (for an example, see Gage-Bouchard et al. [2013]; see details in Appendix A).

Political ideology. Political ideology was assessed with a single item measuring the extent that participants identified as liberal to conservative using a seven-point scale (1=*Extremely liberal* to 7=*Extremely conservative*).

Demographics. Participants reported their gender identity, age, parental education, and race/ethnicity as detailed in Appendix A.

Results

Compliance: Main effect of leadership style on expectation to agree with fake news

We conducted OLS linear regressions with leadership styles as the categorical independent variable predicting expectations to agree with misinformation. Leadership style was related to different expectations to agree with misinformation (see Figure 1). In

western democracies (Figure 1, Panel A), people with authoritarian leaders were more likely to be expected to openly agree with their boss than those with paternalistic, $b=0.72$, $t(498)=5.41$, $p<0.001$, Cohen's $d=0.70$, or autonomous leaders, $b=1.33$, $t(498)=10.62$, $p<0.001$, Cohen's $d=1.30$. And those with paternalistic leaders were also more likely to be expected to openly agree with their boss than those with autonomous leaders ($b=0.61$, $t(498)=6.75$, $p<0.001$, Cohen's $d=0.60$; Ospina et al., 2023). These effects remained strong and stable, even after controlling for accuracy ratings, perceived competence, and transformational leadership, and also when controlling for relevant demographics and political ideology using multiple regressions (all ps<0.001, for detailed reports of these robustness checks, see Appendix B).

A) Study 1: Western democracies
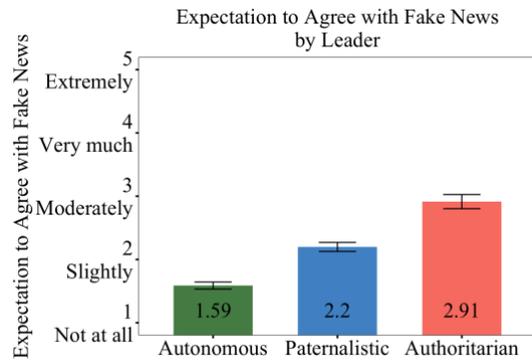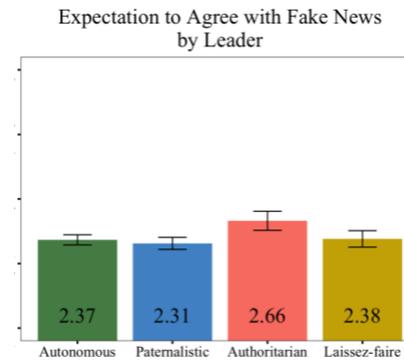
Expectation to Agree with Fake News by Leader

B) Study 2: Paternalistic society (Singapore)

Expectation to Agree with Fake News by Leader

C) Study 3: Informational autocracy (Hungary)

Expectation to Agree with Fake News by Leader

D) Study 4: Preregistered replication in the US
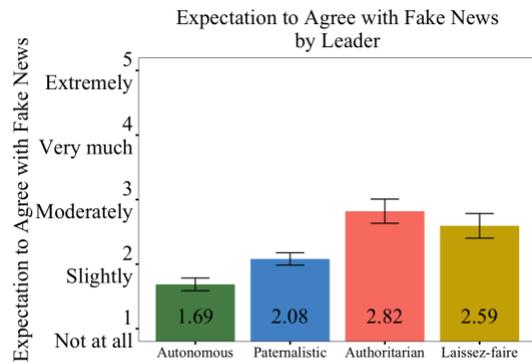
Expectation to Agree with Fake News by Leader
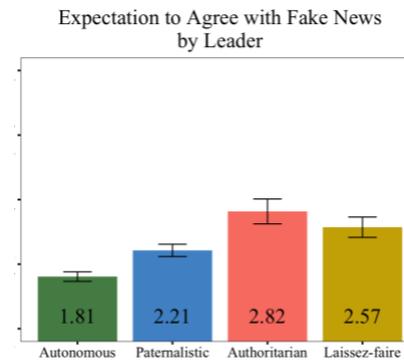
Figure 1. Unstandardized ratings of expectation to agree with misinformation as a function of leadership style, error bars represent standard errors.

In a paternalistic society (i.e., Singapore; Figure 1, Panel B), people with authoritarian leaders were more likely to be expected to openly agree with their boss than those with paternalistic leaders, $b=0.35$, $t(424)=2.00$, $p=0.046$, Cohen's $d=0.33$, and somewhat more likely to openly agree than those with autonomous leaders, $b=0.30$, $t(424)=1.76$, $p=0.079$, Cohen's $d=0.28$. No significant differences were found among other leadership styles ($ps>0.05$). Only the effect between authoritarian and autonomous leaders remained strong and stable after controlling for relevant demographics and political ideology ($p=0.019$), but not when controlling for accuracy ratings and other leadership characteristics (see Appendix B).

In an informational autocracy (i.e., Hungary; Figure 1, Panel C), we replicated the results from western democracies. People with either authoritarian or laissez-faire leaders were more likely to be expected to openly agree with their boss than those with paternalistic (Contrast with authoritarian: $b=0.74$, $t(232)=3.52$, $p<0.001$, Cohen's $d=0.74$; Contrast with laissez-faire: $b=0.51$, $t(232)=2.40$, $p=0.017$, Cohen's $d=0.51$), or autonomous leaders (Contrast with authoritarian: $b=1.13$, $t(232)=5.36$, $p<0.001$, Cohen's $d=1.13$; Contrast with laissez-faire: $b=0.91$, $t(232)=4.22$, $p<0.001$, Cohen's $d=0.90$). Those with paternalistic leaders were also more likely to be expected to openly agree with their boss than those with autonomous leaders ($b=0.39$, $t(232)=2.88$, $p=0.004$, Cohen's $d=0.39$). We did not find differences on compliance between those with authoritarian and laissez-faire leaders ($p>0.05$). The effect between authoritarian and autonomous leaders remained strong and stable, even after controlling for accuracy ratings and other leadership characteristics, and also when controlling for relevant

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demographics and political ideology (all ps<0.019). All other effects remained strong and stable only after controlling for demographics and political ideology, except the effect between laissez-faire and paternalistic leaders, which became marginally significant (see Appendix B).

In the preregistered replication in the US (Figure 1, Panel D), we replicated the results from western democracies and Hungary. As expected, people with authoritarian leaders were more likely to be expected to openly agree with their boss than those with paternalistic (b=0.60, t(398)=2.81, p=0.005, Cohen's d=0.55), or autonomous leaders, (b=1.01, t(398)=4.89, p<0.001, Cohen's d=0.92). As expected, those with paternalistic leaders were also more likely to be expected to openly agree with their boss than those with autonomous leaders (b=0.41, t(398)=3.37, p<0.001, Cohen's d=0.37). We did not preregister the contrasts of laissez-faire with other leadership styles, as we did not know if those leaders would be perceived similarly as in Hungary. Nonetheless, we found a similar pattern as in Hungary. People with laissez-faire leaders were marginally more likely to be expected to openly agree with their boss than those with paternalistic (b=0.36, t(398)=1.95, p=0.051, Cohen's d=0.33), or autonomous leaders, (b=0.77, t(398)=4.40, p<0.001, Cohen's d=0.69). We did not find differences on compliance between those with authoritarian and laissez-faire leaders (p>0.05). The preregistered effects between autonomous and authoritarian, autonomous and paternalistic, and paternalistic and authoritarian leaders remained strong and stable, even after controlling for accuracy ratings and other leadership characteristics, and also when controlling for relevant

demographics and political ideology (all ps<0.043). All effects are robust and stable after controlling for demographics and political ideology (see Appendix B).

**Public compliance: Main effect of leadership style on hiding disagreement with fake news article**

We conducted OLS linear regressions with leadership styles as the categorical independent variable predicting hiding disagreement with misinformation. Leadership style was related to different hiding disagreements with misinformation (see Figure 2). In the preregistered replication in the US, we found a very similar pattern of leadership styles on hiding disagreement as with expectation to agree with fake news. People with either authoritarian or laissez-faire leaders were more likely to hide their disagreement with their boss than those with paternalistic (Contrast with authoritarian: b=0.83, t(398)=3.99, p<0.001, Cohen's d=0.75; Contrast with laissez-faire: b=0.45, t(398)=2.53, p=0.012, Cohen's d=0.41), or autonomous leaders (Contrast with authoritarian: b=1.37, t(398)=6.84, p<0.001, Cohen's d=1.23; Contrast with laissez-faire: b=0.99, t(398)=5.87, p<0.001, Cohen's d=0.89). Those with paternalistic leaders were also more likely to hide their disagreement with their boss than those with autonomous leaders (b=0.54, t(398)=4.60, p<0.001, Cohen's d=0.48). We did not find differences on hiding disagreement between those with authoritarian and laissez-faire leaders. Because these analyses were exploratory, we did not conduct robustness check analyses.
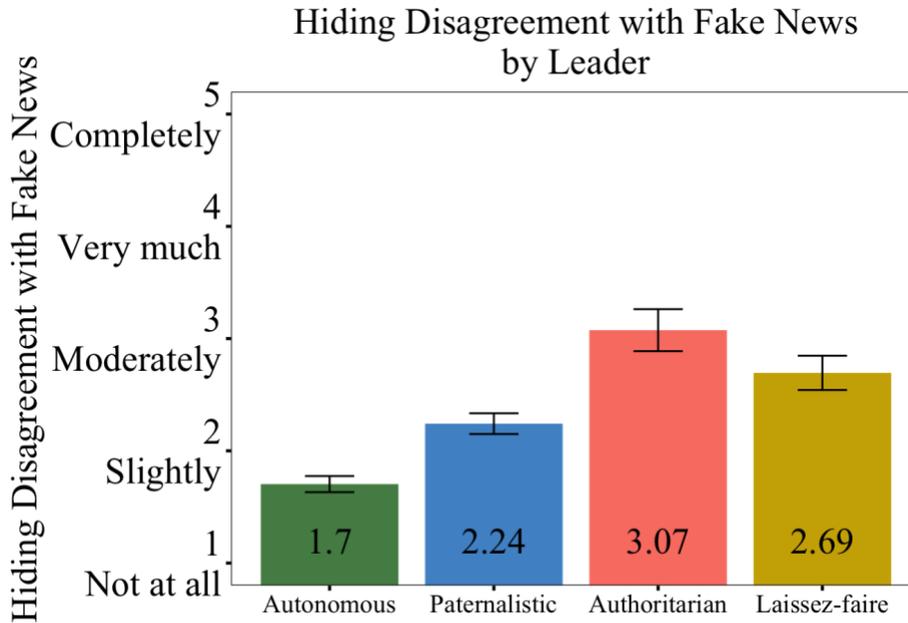
Figure 2. Unstandardized ratings of hiding disagreement with misinformation as a function of leadership style, error bars represent standard errors.

Private compliance: Main effect of leadership style on genuine belief of fake news article

We conducted OLS linear regressions with leadership styles as the categorical independent variable predicting genuine belief of misinformation. The pattern of leadership style on genuine belief of misinformation was very different from public compliance (see Figure 3). In the preregistered replication in the US, we found no differences on genuine belief between people with autonomous, paternalistic, or authoritarian leaders. But people with laissez-faire leaders were less likely to genuinely believe in the fake news articles than those with autonomous (b=-0.42, t(398)=2.95, p=0.003, Cohen's d=0.48), and paternalistic (b=-0.44, t(398)=2.96, p=0.003, Cohen's

d=0.51) leaders. We also found a marginal difference between those with laissez-faire and authoritarian leaders (*b*=-0.36, *t*(398)=1.77, *p*=0.078, Cohen's *d*=0.41). Because these analyses were exploratory, we did not conduct robustness check analyses.
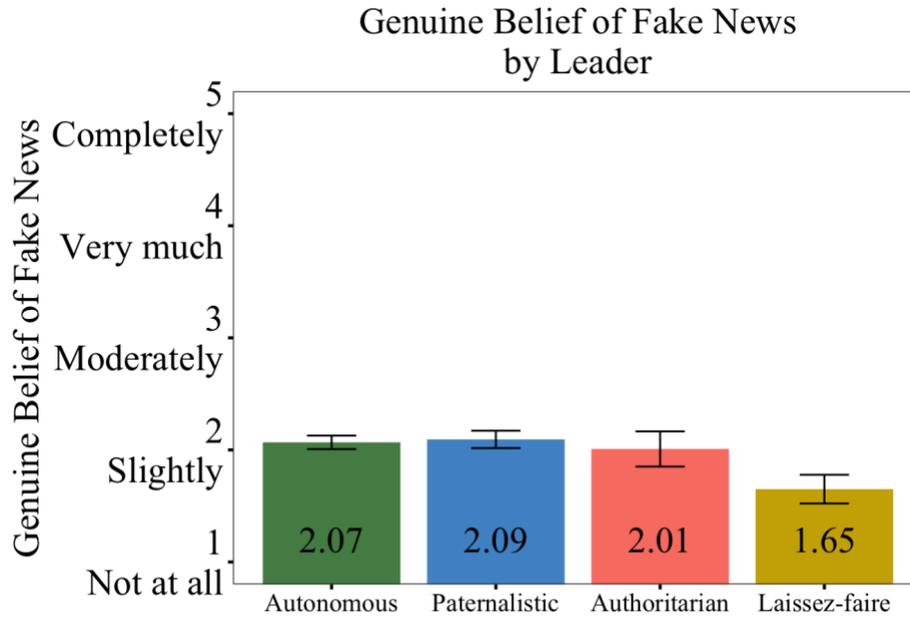
Figure 3. Unstandardized ratings of genuine belief of misinformation as a function of leadership style, error bars represent standard errors.

Pluralistic ignorance: Main effect of target on expectation to agree with fake news articles

First, we conducted a paired samples t-test to compare mean differences of target (self vs coworkers). Overall, people believed that their coworkers (*M*=2.14, *SD*=1.11) would be more likely to be expected to openly agree with their boss about the fake news article than themselves (*M*=2.09, *SD*=1.10; *t*(401)=-3.42, 95% CI[-0.081, -0.022], *p*<.001).

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Pluralistic ignorance: Interaction of leadership style and target on expectation to agree with fake news articles

Then, we conducted a linear-mixed model with the interaction of leadership styles and target predicting expectation to agree with fake news articles with a random factor of participant ID (See Figure 4). We continued to find the same main effect of target (b=0.08, t(398)=4.19, p<0.001, Cohen's d=0.07). When inspecting the simple effects of target by leadership style, we did not find differences in target for people with autonomous or paternalistic leaders. For people with authoritarian (b=0.11, t(398)=1.98, p=0.049, Cohen's d=0.10) and laissez-faire (b=0.16, t(398)=3.47, p<0.001, Cohen's d=0.14) leaders, however, we found significant differences such that people believed that their coworkers would be more expected to openly agree with their boss than themselves. We also found a two-way interaction of target and leadership style such that the target discrepancy appears when people have laissez-faire leaders but not for people with autonomous leaders (b=0.13, t(398)=2.55, p=0.011). Because these analyses were exploratory, we did not conduct robustness check analyses.
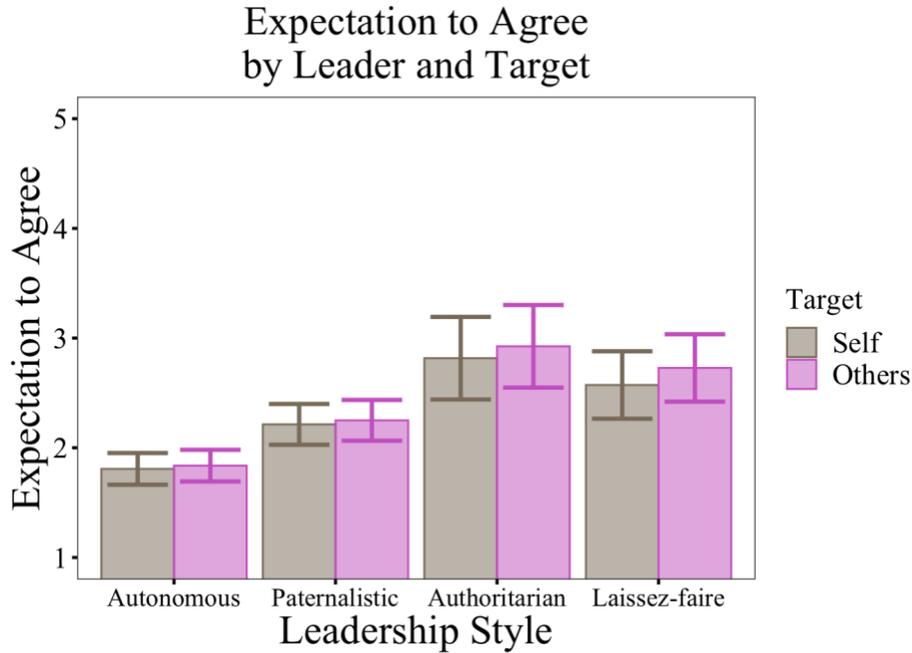
Figure 4. Unstandardized ratings of pluralistic ignorance of expectation to agree with misinformation as a function of leadership style and target, error bars represent 95% CI.

Pluralistic ignorance: Main effect of target on hiding disagreement with fake news articles

First, we conducted a paired samples t-test to compare mean differences of target (self vs coworkers). Overall, people believed that their coworkers (*M*=2.13, *SD*=1.07) would be more likely to hide their disagreement with their boss about the fake news article than themselves (*M*=2.08, *SD*=1.11; *t*(401)=-2.11, 95% CI[-0.091, -0.003], *p*=.035).

Pluralistic ignorance: Interaction of leadership style and target on hiding disagreement with fake news articles

Then, we conducted a linear-mixed model with the interaction of leadership styles and target predicting expectation to agree with fake news articles with a random factor of participant ID (See Figure 5). The main effect of target was not significant (b=0.04, t(398)=1.41, p=0.159, Cohen's d=0.04). When inspecting the simple effects of target by leadership style, we did not find differences in target for people with autonomous or paternalistic leaders. We found a marginal difference for people with authoritarian (b=-0.14, t(398)=-1.75, p=0.081, Cohen's d=0.13) leaders such that people believed that their coworkers would be less likely to hide their disagreement with their boss than themselves. For people with laissez-faire (b=0.22, t(398)=3.36, p<0.001, Cohen's d=0.20) leaders, however, we found significant differences such that people believed that their coworkers would be more likely to hide their disagreement with their boss than themselves. We also found two-way interactions of target and leadership style. First, we found a target discrepancy when people have authoritarian but not when people have autonomous leaders (b=-0.18, t(398)=2.06, p=0.040). In contrast, when people have laissez-faire leaders, we found a target discrepancy in the opposite direction of authoritarian leaders, and no discrepancy for people with autonomous leaders (b=0.19, t(398)=2.54, p=0.012).
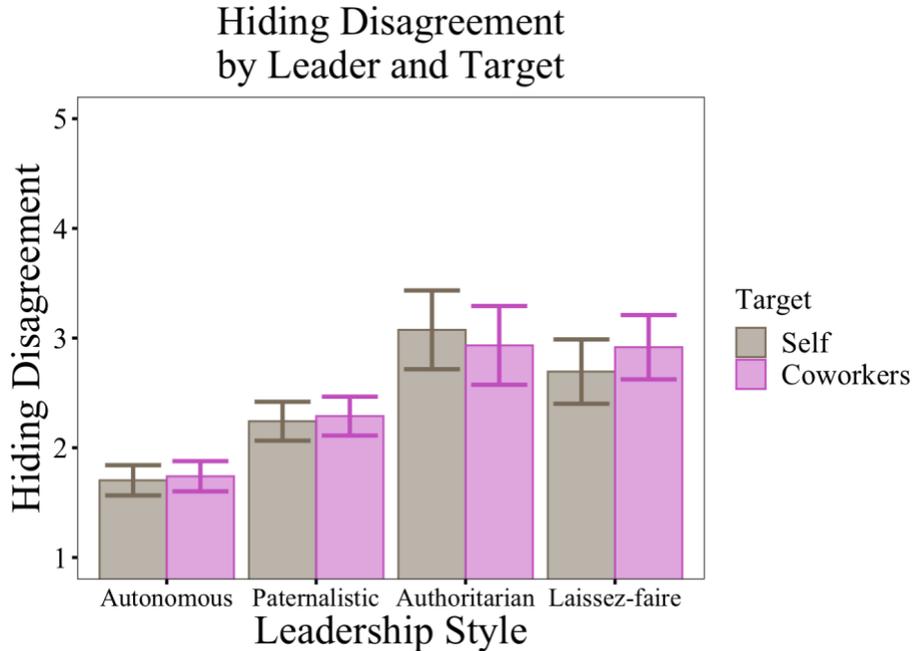
Figure 5. Unstandardized ratings of pluralistic ignorance of hiding disagreement with misinformation as a function of leadership style and target, error bars represent 95% CI.

Pluralistic ignorance: Main effect of target on genuine belief with fake news articles

First, we conducted a paired samples t-test to compare mean differences of target (self vs coworkers). Overall, people believed that their coworkers (*M*=2.25, *SD*=0.83) would be more likely to hide their disagreement with their boss about the fake news article than themselves (*M*=2.02, *SD*=0.87; *t*(401)=-9.60, 95% CI[-0.273, -0.181], *p*<.001).

Pluralistic ignorance: Interaction of leadership style and target on genuine belief with fake news articles

Then, we conducted a linear-mixed model with the interaction of leadership styles and target predicting expectation to agree with fake news articles with a random factor of

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participant ID (See Figure 6). The main effect of target remained significant (b=0.29, t(398)=9.56, p<0.001, Cohen's d=0.34). When inspecting the simple effects of target by leadership style, we found significant differences for each leadership style such that people with autonomous (b=0.17, t(398)=5.11, p<0.001, Cohen's d=0.19), paternalistic (b=0.22, t(398)=5.13, p<0.001, Cohen's d=0.25), authoritarian (b=0.30, t(398)=3.53, p<0.001, Cohen's d=0.35), and laissez-faire (b=0.48, t(398)=6.97, p<0.001, Cohen's d=0.56) leaders were more likely to think that their coworkers genuinely believed the fake news article that their boss shared than themselves. We also found a two-way interaction of target and leadership style such that the target discrepancy is amplified when people have laissez-faire leaders compared to autonomous leaders (b=0.31, t(398)=4.13, p<0.001).
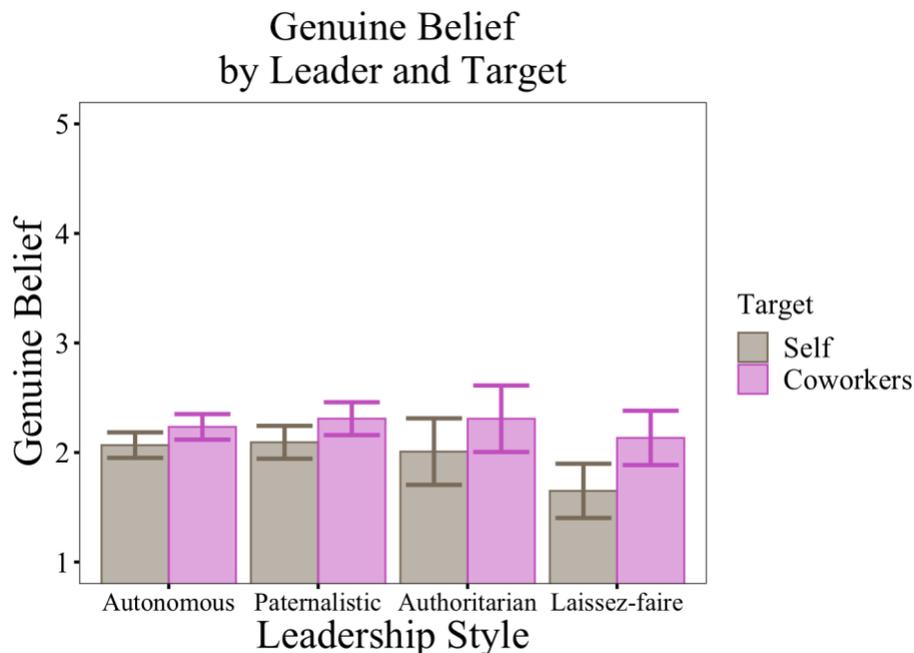

Figure 6. Unstandardized ratings of pluralistic ignorance of genuine belief of misinformation as a function of leadership style and target, error bars represent 95% CI.

Discussion

In western democracies, an informational autocracy (Hungary), and the preregistered replication in the US, people with authoritarian and laissez-faire leaders were more likely to be expected to comply with their boss about a politically-neutral, personally- and professionally-irrelevant, fake news article shared to their social media compared to those with paternalistic and autonomous leaders. Thus, highlighting the effect of social influence on compliance, across three studies, we found that the more controlling and uncaring the leader is (i.e., authoritarian and laissez-faire), the more people are going to comply with them. In these countries, the effect between autonomous and authoritarian leaders remained strong and stable after controlling for accuracy ratings and other leadership characteristics, or after controlling for demographics and political ideology, suggesting that the active control of authoritarian leaders cannot be explained by these factors.

In a paternalistic society such as Singapore, however, those with authoritarian leaders were more likely to be expected to openly agree with their boss than those with paternalistic leaders. The difference between authoritarian and autonomous leaders, however, was marginal. This difference was smaller because those with autonomous leaders were more likely to comply compared to other societies. We believe that there are two potential explanations of why Singaporeans are more compliant than those in western democracies and an informational autocracy. First, Singapore is part of South East Asia, where countries tend to be interdependent (Kitayama et al., 2022). Thus, an autonomous leader that promotes independence may not be a good fit. Second, Singapore is a

paternalistic society that is heavily governed by rules and policies. In 2022, Singapore

was the third country with the highest rule of law, which is a dimension of governance

from the World Bank that captures perceptions of the extent to which people trust and

follow governmental policies and laws (Kaufmann and Kraay, 2023). Thus, autonomy

may be less promoted. This highlights how culture could also play a role in compliance.

When a culture values interdependence or being heavily governed by rules, people may

be more likely to comply, even when they have an autonomous leader that values their

opinion. This seems to suggest that when there is a mismatch between leadership style

and culture, as when people had an autonomous leader in an interdependent culture, the

effect of leadership style on compliance was buffered. In contrast, when there is a match

between leadership style and culture, as when people had an autonomous leader in an

independent culture, the effect of leadership style on compliance was accentuated. This

could also help explain why we found similar results in western democracies and in

Hungary. Both western democracies and Hungary are more independent than

interdependent. Thus, it is more likely to find an effect between people with autonomous

and authoritarian leaders.

Then, we wanted to parse out whether people comply with their leader because of

public or private compliance. In Study 4, we found a similar pattern on public compliance

(i.e., hiding disagreement) as with expectations to agree with fake news. People with

authoritarian or laissez-faire leaders were more likely to hide their disagreement with

their boss about fake news articles compared to those with paternalistic and autonomous

leaders. And we also found that people with laissez-faire leaders are less likely to

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privately comply (i.e., genuinely believe) with the misinformation articles compared to other leadership styles. Taken together, these findings seem to suggest that compliance from controlling and uncaring leaders is more public than private. That is, people are not genuinely changing their beliefs or opinions when complying with their authoritarian or laissez-faire leader. Instead, people with these leaders are agreeing with their boss in public, but disagreeing privately.

We also wanted to explore whether there exists pluralistic ignorance in compliance (i.e., discrepancies between perceptions of the self and perceptions of others). Overall, we found that people tended to believe that their coworkers would be more compliant than themselves: people believed that their coworkers would be more likely to be expected to openly agree with their boss, hide their disagreement, and genuinely believe in the fake news article that their boss shared. That is, people were more likely to believe that their coworkers would be more likely to both publicly and privately comply with their leader, regardless of leadership style.

Furthermore, we found that pluralistic ignorance of general and public compliance emerges when people have authoritarian or laissez-faire leaders. For people with autonomous and paternalistic leaders, we did not find a discrepancy between self and coworkers in general compliance (expectations to agree) or in public compliance (hiding disagreement). In contrast, people with authoritarian or laissez-faire leaders perceived that their coworkers were more likely to be expected to agree with the fake news article than themselves. And we also found that people with laissez-faire leaders perceived that their coworkers would be more likely to hide their disagreement with their

boss than themselves, but those with authoritarian leaders perceived that their coworkers would be marginally less likely to hide their disagreement with their boss than themselves.

For pluralistic ignorance of private compliance, we found that people perceived that their coworkers would be more gullible than themselves, regardless of the leadership style of their boss. People thought that their coworkers would be more likely to genuinely believe in the fake news article shared by their boss than themselves. Furthermore, we found that this discrepancy of perceptions between self and coworkers is amplified when comparing people with autonomous vs laissez-faire leaders. This seems to suggest that as leaders become more disengaged generally and more controlling specifically, pluralistic ignorance on private compliance increases. That is, although people with both autonomous and with laissez-faire leaders believed that their coworkers were more gullible than themselves, those with laissez-faire leaders were much more likely to think that their coworkers genuinely believed the fake news article that their boss shared than themselves compared to those with autonomous leaders.

Future research could change the nature of the articles, or establish causal evidence of leadership styles on compliance. Could different types of articles change levels of compliance? For example, would people become more or less compliant if the articles are factual news, related to their work, personally relevant, novel, or politically charged? Follow-up studies could also establish causal evidence of leadership styles on compliance. Given that we found the strongest effects when comparing autonomous vs authoritarian leaders, developing a hypothetical experiment where people either work

with an autonomous or authoritarian leader could help find causal evidence for the effect of leadership style. We hypothesize that those assigned to work with an authoritarian leader would be more likely to comply with their leader than those with an autonomous leader. Furthermore, we would also expect that authoritarian leaders will be more likely to use illegitimate harsh bases, and this could partly explain why people are more likely to comply with them.

Chapter 4. General Discussion

Social power or control comes in many forms. For example, wealth, resources, armament, information, and other people can influence how we behave, feel, and think about our lives. Here, we shed light on how leaders in organizational settings can influence their subordinates to comply with misinformation. We argue that one key underlying factor that makes people more compliant to their leaders is control. A controlling leader is one who is *actually influencing* their subordinates in interpersonal interactions (Fiske and Berdahl, 2007). We found that both authoritarian and laissez-faire leaders were similarly perceived as controlling, followed by paternalistic leaders who were somewhat controlling, and autonomous leaders were the least controlling.

Although both authoritarian and laissez-faire leaders were rated as equally controlling when *specifically* interacting with their subordinates, and thus influenced compliance similarly among their subordinates, these two leadership styles are different from each other at least in two aspects: the level of specificity of their control, and the frequency of interactions with their subordinates. First, we argue that authoritarian leaders are *generally* controlling towards their subordinates. This leadership style is characterized by high general levels of control because they value loyalty, make most of the decisions in the company, help subordinates who agree with them, and only them or their superiors can change how the company works. Thus, even when they do not interact directly with their subordinates, they are actively constraining the influence that their subordinates can have in the organization, even when they are not directly interacting

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with their employees. In contrast, laissez-faire leaders are *generally* not controlling towards their subordinates. This leadership style is characterized by low general levels of control because they are mostly disengaged, do not value loyalty, rarely make decisions, rarely help others, and would not have any influence in changing how the company works. Thus, *generally*, they rarely have any influence on their subordinates or the organization.

Another key difference between authoritarian and laissez-faire leaders is the frequency of interactions that they have with their subordinates. Authoritarian leaders interact much more frequently with their subordinates, whereas laissez-faire leaders rarely interact with their subordinates. Taking these two differences together, we argue that authoritarian leaders are *actively* controlling their subordinates because they are both *generally* controlling their subordinates by constraining the influence of their subordinates in the organization as demonstrated by their leadership style, and also *specifically* controlling their subordinates by interacting with them regularly. In contrast, we argue that laissez-faire leaders are *passively* controlling their subordinates because they are *generally* not controlling by being mostly disengaged as demonstrated by their leadership style, but *specifically* controlling when they actually interact with their subordinates. Thus, even when both authoritarian and laissez-faire leaders influence similar levels of compliance among their subordinates, the process by which they enforce it is different.

Furthermore, we found similarities and differences on public vs private compliance between leadership styles. The pattern of general compliance (expectations to

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agree with misinformation) was strikingly similar to public compliance (hiding

disagreement). People with authoritarian and laissez-faire leaders felt much more the

social pressure to agree with their boss, and the frustration of having to hide their

disagreement with them, compared to people with paternalistic or autonomous leaders.

For private compliance (genuine belief), the pattern was different. Those with

authoritarian leaders were as equally likely to genuinely believe in the fake news articles,

whereas those with laissez-faire leaders were less likely to genuinely believe in those

articles compared to those with autonomous or paternalistic leaders. This seems to

suggest that the social influence from authoritarian leaders may be more genuinely

believed than the social influence from laissez-faire leaders.

We also found cross-cultural differences on general compliance (expectations to

agree). The pattern of results was very similar for western democracies, an informational

autocracy (Hungary), and the replication in the US. In contrast, in a paternalistic society

(Singapore), people with autonomous leaders were more likely to be expected to openly

agree with their boss compared to people with autonomous leaders in other societies. This

seems to suggest that culture could play a role in compliance. Singaporeans may value

more interdependence over independence, and following rules over speaking up. Thus,

these factors may make people more likely to comply, even when they have an

autonomous leader who values their ideas and opinions.

What about pluralistic ignorance in compliance? When people have autonomous

or paternalistic leaders, we did not find a discrepancy in their own and their perceptions

of their coworkers of general or public compliance, but we found such discrepancies

when people had authoritarian or laissez-faire leaders. That is, people tended to rate similarly their own and their perceptions of their coworkers' expectations to agree and hiding disagreement of the fake news article when shared by their autonomous or paternalistic boss. In contrast, people tended to perceive that their coworkers would be more likely to be expected to openly agree with their boss compared to themselves when they have an authoritarian or laissez-faire leader. For pluralistic ignorance in public compliance, we found an opposite pattern between authoritarian and laissez-faire leaders. People with authoritarian leaders were marginally *less* likely to believe that their coworkers would hide their disagreement compared to themselves, whereas those with laissez-faire leaders were *more* likely to believe that their coworkers would hide their disagreement compared to themselves.

In addition, we found a consistent effect of pluralistic ignorance in private compliance (genuine belief), regardless of the boss' leadership style. People perceived that their coworkers would genuinely believe more in the fake news article than themselves, even when they had an autonomous, paternalistic, authoritarian, or laissez-faire boss. Furthermore, when inspecting these differences more closely, we found a two-way interaction such that the target discrepancy was larger when people have laissez-faire leaders compared to autonomous leaders. Taken together, these findings seem to suggest that pluralistic ignorance in general and public compliance emerges when people have more controlling leaders (authoritarian and laissez-faire). For pluralistic ignorance in private compliance, people tend to believe that their coworkers are more gullible than

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themselves, regardless of the leadership style of their boss. Nonetheless, this discrepancy amplifies when people have laissez-faire leaders compared to autonomous leaders.

Future Directions

So far, we have demonstrated that there is a relationship between leadership styles, compliance, and pluralistic ignorance. Future research should demonstrate experimentally that these leadership styles cause compliance and pluralistic ignorance among their subordinates. Because we argue that control is one of the underlying dimensions of these leadership styles, a potential experiment to test causality of these leadership styles would be to make people imagine a hypothetical situation where they either have an autonomous (low in control) or an authoritarian (high in control) leader, and then ask them similar questions of compliance and pluralistic ignorance as in our studies above. In-lab experiments could also recreate similar circumstances where leaders either behave in an autonomous or authoritarian way and participants would rate their own and others' compliance.

Future research could also test different moderators of these leadership styles. We found cross-cultural differences between a paternalistic society (Singapore), western democracies, and an informational autocracy (Hungary). The pattern of results may also vary depending on whether participants belong to Eastern vs Western societies (Zhong et al., 2006), individualistic vs interdependent cultures (Markus & Kitayama, 2010), authoritarian vs democratic regimes (Diamond, 1999; Linz, 2000), or a combination of all these different factors.

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Organizations can also vary in similar dimensions. Some organizations could be more authoritarian and value tradition, whereas other organizations could be more autonomous and value innovation. We may expect that the degree of compliance would depend on the interaction between leadership styles and the organization's culture. We may expect that when the organizational culture is authoritarian, people would be *more* likely to comply, especially when they have authoritarian leaders. In contrast, when the organizational culture is autonomous, people would be *less* likely to comply, especially when they have autonomous leaders

Future research could also apply these leadership styles to other contexts such as politics and family dynamics. We would expect that an authoritarian or laissez-faire political leader may be more likely to make their followers comply with their requests than a paternalistic or autonomous political leader. For example, Trump may be characterized as an authoritarian leader who makes the most important decisions by himself without considering the views of people who disagree with him. He may have convinced his constituents to comply with him and riot the Capitol on January 6th, 2021, when he argued that the election was stolen.

Furthermore, helicopter or "tiger mom" parenting can be described as authoritarian or paternalistic parenting (Kim et al., 2013; LeMoyne & Buchanan, 2011; Schiffrin et al., 2014). Similar to organizational settings, parents behave as leaders and children as their subordinates. Both helicopter and "tiger mom" parenting styles are characterized by high levels of control. These parenting styles seek to manage most of the aspects of a child's life. What would differentiate an authoritarian from a paternalistic

parenting style would be the reasoning that they would use to control their children's life. An authoritarian parent would seek to control their children to manage the impressions that their social circle would have of their family and their children and would not consider their children's needs or desires. In contrast, a paternalistic parent would seek to control their children because they "know what is best" for their children. That is, although both authoritarian and paternalistic parents would be highly controlling of their children, authoritarian parents would care less about their children's needs, whereas paternalistic parents would care more about their children's needs, but they would still make most of the decisions without taking their children's desires into account.

Conclusion

Across four studies, we find that when people imagine being asked by their authoritarian or laissez-faire boss to agree with headlines that are fake, they express much more compliance with that misinformation, and pluralistic ignorance, than when they are asked to comply with the same news by their autonomous or paternalistic boss. These findings suggest that the power of the social situation by controlling leaders may play an important role in compliance with misinformation, and pluralistic ignorance among their subordinates.

Bibliography

Anderson, C., John, O. P., & Keltner, D. (2012). The personal sense of power. *Journal of Personality*, *80*(2), 313–344.

Asch, S. E. (1956). Studies of independence and conformity: I. A minority of one against a unanimous majority. *Psychological Monographs: General and Applied*, *70*(9), 1.

Bass, B. M. (1999). Two Decades of Research and Development in Transformational Leadership. *European Journal of Work and Organizational Psychology*, *8*(1), 9–32. https://doi.org/10.1080/135943299398410

Cialdini, R. B., & Goldstein, N. J. (2004). Social Influence: Compliance and Conformity. *Annual Review of Psychology*, *55*(1), 591–621. https://doi.org/10.1146/annurev.psych.55.090902.142015

Cuddy, A. J., Fiske, S. T., & Glick, P. (2008). Warmth and competence as universal dimensions of social perception: The stereotype content model and the BIAS map. *Advances in Experimental Social Psychology*, *40*, 61–149.

Cuddy, A. J. C., Fiske, S. T., Kwan, V. S. Y., Glick, P., Demoulin, S., Leyens, J.-P., Bond, M. H., Croizet, J.-C., Ellemers, N., Sleebos, E., Htun, T. T., Kim, H.-J., Maio, G., Perry, J., Petkova, K., Todorov, V., Rodríguez-Bailón, R., Morales, E., Moya, M., … Ziegler, R. (2009). Stereotype content model across cultures: Towards

universal similarities and some differences. *British Journal of Social Psychology*, *48*(1), 1–33. https://doi.org/10.1348/014466608X314935

Demeter, M. (2018). Propaganda against the West in the Heart of Europe. A masked official state campaign in Hungary. *Central European Journal of Communication*, *11*(21), 177–197.

Diamond, L. (1999). *Developing democracy: Toward consolidation*. JHU Press.

Ferris, G. R., & Kacmar, K. M. (1992). Perceptions of Organizational Politics. *Journal of Management*, *18*(1), 93–116. https://doi.org/10.1177/014920639201800107

Fiske, S. T., & Berdahl, J. (2007). *Social power*.

Fleishman, E. A. (1953). The description of supervisory behavior. *Journal of Applied Psychology*, *37*(1), 1.

Gage-Bouchard, E. A., Devine, K. A., & Heckler, C. E. (2013). The Relationship between Socio-demographic Characteristics, Family Environment, and Caregiver Coping in Families of Children with Cancer. *Journal of Clinical Psychology in Medical Settings*, *20*(4), 478–487. https://doi.org/10.1007/s10880-013-9362-3

Guriev, S., & Treisman, D. (2022). *Spin dictators: The changing face of tyranny in the 21st century*. Princeton University Press.

Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, *52*(3), 511–524. https://doi.org/10.1037/0022-3514.52.3.511

Kaufmann, D., & Kraay, A. (2023). Worldwide Governance Indicators. Retrieved from https://www.worldbank.org/en/publication/worldwide-governance-indicators

Kim, S. Y., Wang, Y., Orozco-Lapray, D., Shen, Y., & Murtuza, M. (2013). Does "tiger parenting" exist? Parenting profiles of Chinese Americans and adolescent developmental outcomes. *Asian American Journal of Psychology*, *4*(1), 7.

Kitayama, S., Salvador, C. E., Nanakdewa, K., Rossmaier, A., San Martin, A., & Savani, K. (2022). Varieties of interdependence and the emergence of the Modern West: Toward the globalizing of psychology. *American Psychologist*, *77*(9), 991.

Krekó, P., & Enyedi, Z. (2018). Explaining Eastern Europe: Orbán's Laboratory of Illiberalism. *Journal of Democracy*, *29*(3), 39–51.

Krekó, P. (2022). The birth of an illiberal informational autocracy in Europe: A case study on Hungary. *The Journal of Illiberalism Studies*, *2*(1), 55–72.

Kouzes, J. M., & Posner, B. Z. (2003). *The leadership practices inventory (LPI): Self instrument* (Vol. 52). John Wiley & Sons.

LeMoyne, T., & Buchanan, T. (2011). Does "hovering" matter? Helicopter parenting and its effect on well-being. *Sociological Spectrum*, *31*(4), 399–418. https://doi.org/10.1080/02732173.2011.574038

Lewin, K., Lippitt, R., & White, R. K. (1939). Patterns of aggressive behavior in experimentally created "social climates." *The Journal of Social Psychology*, *10*(2), 269–299.

Linz, J. J. (2000). *Totalitarian and authoritarian regimes*. Lynne Rienner Publishers.

Markus, H. R., & Kitayama, S. (2010). Cultures and selves: A cycle of mutual constitution. *Perspectives on Psychological Science*, *5*(4), 420–430.

McCauley, C. (1989). The nature of social influence in groupthink: Compliance and

internalization. *Journal of Personality and Social Psychology*, *57*(2), 250.

Milgram, S. (1974). *Obedience to Authority: An Experimental View* (Reprint edition).

Harper Perennial Modern Classics.

Miller, D. T. (2023). A century of pluralistic ignorance: What we have learned about its

origins, forms, and consequences. *Frontiers in Social Psychology*, *1*.

https://www.frontiersin.org/articles/10.3389/frsps.2023.1260896

Northouse, P. G. (2021). *Leadership: Theory and practice*. Sage publications.

Ospina, J., Orosz, G., & Spencer, S. (2023). The relation between authoritarian leadership

and belief in fake news. *Scientific Reports*, *13*(1), Article 1.

https://doi.org/10.1038/s41598-023-39807-x

Pennycook, G., & Rand, D. G. (2019). Lazy, not biased: Susceptibility to partisan fake

news is better explained by lack of reasoning than by motivated reasoning.

Cognition, *188*, 39–50. https://doi.org/10.1016/j.cognition.2018.06.011

Rafferty, A. E., & Griffin, M. A. (2004). Dimensions of transformational leadership:

Conceptual and empirical extensions. *The Leadership Quarterly*, *15*(3), 329–354.

https://doi.org/10.1016/j.leaqua.2004.02.009

Raven, B. H., Schwarzwald, J., & Koslowsky, M. (1998). Conceptualizing and measuring

a power/interaction model of interpersonal influence 1. *Journal of Applied Social

Psychology*, *28*(4), 307–332.

Russell, B. (1938). *Power: A new social analysis*. London: Allen and Unwin.

Schiffrin, H. H., Liss, M., Miles-McLean, H., Geary, K. A., Erchull, M. J., & Tashner, T.

（2014). Helping or hovering? The effects of helicopter parenting on college students'

well-being. *Journal of Child and Family Studies*, *23*, 548–557.

Van de Vliert, E. (2011). Climato-Economic Origins of Variation in Ingroup Favoritism.

Journal of Cross-Cultural Psychology, *42*(3), 494–515.

https://doi.org/10.1177/0022022110381120

World Bank, World Development Indicators. (2021). *Life expectancy at birth, total*

(years) [Data file]. Retrieved from

https://data.worldbank.org/indicator/SP.DYN.LE00.IN

World Bank, World Development Indicators. (2022). *GDP per capita (current US$)*

[Data file]. Retrieved from https://data.worldbank.org/indicator/NY.GDP.PCAP.CD

Zhong, C.-B., Magee, J. C., Maddux, W. W., & Galinsky, A. D. (2006). Power, Culture,

and Action: Considerations in the Expression and Enactment of Power in East Asian

and Western Societies. In Y.-R. Chen (Ed.), *National Culture and Groups* (Vol. 9,

pp. 53–73). Emerald Group Publishing Limited. https://doi.org/10.1016/S1534-

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Overview

We used the following measures in Study 4, the US preregistered replication. In previous studies, we used the same or very similar measures, but the wording of some measures were slightly different. Some measures were only used in Study 4, we marked these measures with an (*). Items with an (R) next to them were reverse-scored in analyses. All the items of each measure were presented in a random order to counterbalance them. Leadership styles were always presented in the beginning of the survey to make sure that participants were thinking about a specific boss. Then, the following measures were counterbalanced together and presented in the following order 1) leader's control and care (i.e., some participants saw leader's control first and then leader's care while others saw these measures in the opposite order), 2) loyalty and nepotism in organizations, 3) interpersonal power inventory, leadership practices inventory, personal sense of power, leader's competence and warmth, transformational leadership, task- and relationship-oriented leadership, 4) 4 fake and 4 real politically-neutral article headlines. Then, participants completed in a fixed order some organizational measures, demographics, data quality questions, were debriefed, and provided comments about the survey (if they had any).

Leadership Styles

Please **take your time** and **read carefully** the following descriptions.

There are many types of bosses. We are going to describe four broad types of bosses. We want you to **select the description that best fits the boss or supervisor that you interact most frequently with**. If you have multiple supervisors, or if your organization changes roles depending on projects, please think about the leader with the most significant impact on your daily work. Even if your boss left the job recently, please think about them when selecting the descriptions. Which of the following best describes your boss? (Please continue scrolling to see all the different types of bosses)

   A.   My boss values input from workers, hard work, and creativity. When ideas are discussed, the most important thing is that people bring their best ideas, and they are heard. People who disagree with my boss are encouraged to express their

ideas fully and their ideas are respected. The way to be successful is to bring forward good ideas and work hard to implement them. My boss is eager to provide help, and help comes with no strings attached. My boss encourages challenging the system to develop fair and more equitable rules.

B. My boss values loyalty, hard work, and creativity. When ideas are discussed, people's voices are heard, but my boss makes the final decision. People who disagree with my boss can still succeed if they follow the rules. There are several ways to be successful (e.g., be loyal, hardworking, or creative), but you have to win over my boss to be successful. My boss is eager to provide help, but receiving help comes with rules that you have to follow. My boss discourages challenging the system, and this can only happen when going through proper channels.

C. My boss values loyalty over hard work and creativity. When ideas are discussed, the most important thing is that people agree with my boss. People who disagree with my boss have no place in the organization and are cut off from important information. The way to be successful is to agree with my boss. My boss is eager to provide help, but receiving help comes with strings attached. Only my boss or his/her superiors can change the system, no one else can.

D. My boss doesn't value input from workers, nor does he/she care much about the quality of ideas people have, their creativity, or their loyalty. We rarely discuss ideas because we rarely meet with my boss and there is little disagreement or agreement. My boss plays little to no role in whether people are successful in the company. My boss is rarely available to help, and I need to figure things out by myself. I can't see my boss ever wanting to change the existing system.

Leader's Name or Nickname

Who were you thinking about? Please write a **first name** or a **nickname** below so you can have this person in mind and we can remind you of this person later throughout the survey.

Open-ended response: _____

Frequency of Interactions*

Scale for the following items: 1 = Multiple times a day, 2 = Once a day, 3 = Multiple times a week, 4 = Once a week, 5 = Multiple times a month, 6 = Once a month, 7 = Multiple times a year, 8 = Once a year, 9 = Almost never

Actual interactions

How frequently **do you interact** with **your boss, [boss name]** (whether in person or online)?

Desired interactions

How frequently **would you like** to interact with **your boss, [boss name]** (whether in person or online)?

Ideal interactions

Ideally, if you had a **good boss**, how frequently would you like to interact with that boss (whether in person or online) to effectively do your work?

Leader's Control and Care

Scale for both leader's control and care: 1 = Almost never (less than 10% of the time), 5 = Sometimes (about 50% of the time), 9 = Almost always (more than 90% of the time)

Control

When I interact with **my immediate boss**, **[boss name],** …
1. … what is most important to them is that **I do what they want me to do**
2. … what is most important is to **follow their orders**
3. … they expect me to **agree with them**
4. … I have to **be careful about what I say**

Care

My immediate boss, **[boss name]**,…
1. … **cares** about me as an individual
2. … **could not care less** about my personal life (R)
3. … **supports me** when I have difficulties in my personal life
4. … **does not care** when I have difficulties in my personal life (R)
5. … **cares** about my growth and development
6. … **does not care** whether I grow or improve in my work (R)
7. … **cares** about my professional goals
8. … **could not care less** about my professional life (R)

9. … **genuinely helps me** find the connection between the company's purpose and my work
10. … **does not explain** the purpose or reason for the work that I do (R)
11. … **is there for me** when I want or need their help
12. … **is not available** to meet with me when I want or need their help (R)
13. … **does their best** to make my workload manageable
14. … **does not care** that the amount of my work is unreasonable (R)
15. … **gives me credit** for my work in front of other people

Loyalty

Please be completely honest in your responses and remember that all your responses are confidential. Think about **how you and people at your work interact with each other** and rate the items using the scale below.

Scale: 1 = Strongly disagree to 5 = Strongly agree

1. Favoritism rather than merit determines who gets ahead at my workplace
2. It is safer to agree with managers than to say what you think is right
3. Good ideas are desired even when it means disagreeing with supervisors (R)
4. You can get along around here by being a good guy, regardless of the quality of your work
5. Employees are encouraged to speak out frankly even when they are critical of well-established ideas (R)
6. There are "cliques" or "in-groups" that hinder the effectiveness at my workplace

Nepotism in Organizations

Senior management positions in **your organization** are usually held by professional managers chosen based on…

Scale: 1 = Never, 2 = Very rarely, 3 = Rarely, 4 = Occasionally, 5 = Frequently, 6 = Very frequently

1. … **relatives**
2. … **connections to the boss**
3. … **friends**

Interpersonal Power Inventory*

Often supervisors ask subordinates to do their job somewhat differently. Sometimes subordinates resist doing so or do not follow the supervisor's directions exactly. Other times, they will do exactly as their supervisor requests. We are interested in those situations which lead subordinates to follow the requests of their supervisor.

Think about a time when you were being supervised in doing some task. Suppose your supervisor, **[boss name]**, asked you to do your job somewhat differently and, though you were initially reluctant, you did exactly as you were asked. On the following pages, there are a number of reasons why you might do so. Read each descriptive statement carefully, thinking of the situation in which you were supervised. Decide how likely it would be that this would be the reason you would comply.

Scale: 1 = Definitely **not** a reason for complying, 7 = Definitely a reason for complying

Harsh bases

Note: The subscales bolded are the ones used for the mediation model presented in Chapter 3.

Legitimacy/Reciprocity
1. For past considerations I had received, I felt obliged to comply
2. My supervisor had previously done some good things that I had requested
3. My supervisor had let me have my way earlier so I felt obliged to comply now

Legitimacy/Equity
4. By doing so, I could make up for some problems I may have caused in the past
5. Complying helped make up for things I had not done so well previously
6. I had made some mistakes and therefore felt that I owed this to him/her

Coercive Impersonal
7. My supervisor could make things unpleasant for me
8. My supervisor could make it more difficult for me to get a promotion
9. My supervisor could make it more difficult for me to get a pay increase

Reward Impersonal
10. A good evaluation from my supervisor could lead to an increase in pay

11. My supervisor could help me receive special benefits

12. My supervisor's actions could help me get a promotion

Personal Coercion

13. It would have been disturbing to know that my supervisor disapproved of me

14. My supervisor may have been cold and distant if I did not do as requested

15. Just knowing that I was on the bad side of my supervisor would have upset me

Legitimacy/Position

16. After all, he/she was my supervisor

17. My supervisor had the right to request that I do my work in a particular way

18. As a subordinate, I had an obligation to do as my supervisor said

Soft bases

Expert Power

1. My supervisor probably knew the best way to do the job

2. My supervisor probably knew more about the job than I did

3. My supervisor probably had more technical knowledge about this than I did

Referent Power

4. I respected my supervisor and thought highly of him/her and did not wish to disagree

5. I saw my supervisor as someone I could identify with

6. I looked up to my supervisor and generally modeled my work accordingly

Informational Power

7. Once it was pointed out, I could see why the change was necessary

8. My supervisor gave me good reasons for changing how I did the job

9. I could then understand why the recommended change was for the better

Legitimacy/Dependence

10. Unless I did so, his/her job would be more difficult

11. I understood that my supervisor really needed my help on this

12. I realized that a supervisor needs assistance and cooperation from those working with him/her

Personal Reward
13. I liked my supervisor and his/her approval was important to me
14. My supervisor made me feel more valued when I did as requested
15. It made me feel personally accepted when I did as my supervisor asked

Leadership Practices Inventory*
My immediate boss, **[boss name],**…

Scale: 1 = Almost never, 2 = Rarely, 3 = Seldom, 4 = Once in a while, 5 = Occasionally, 6 = Sometimes, 7 = Fairly often, 8 = Usually, 9 = Very frequently, 10 = Almost always

Model the way
1. … sets a personal example of what is expected
2. … makes certain that people adhere to the principles and standards that have been agreed upon
3. … follows through on promises and commitments
4. … asks for feedback on how his/ her actions affect people's performance
5. … builds consensus around organization's values
6. … is clear about his/her philosophy of leadership

Inspire a shared vision
7. … talks about future trends influencing our work
8. … describes a compelling image of the future
9. … appeals to others to share dream of the future
10. … shows others how their interests can be realized
11. … paints "big picture" of group aspirations
12. … speaks with conviction about meaning of work

Challenge the Process
13. … seeks challenging opportunities to test skills
14. … challenges people to try new approaches
15. … actively searches for innovative ways to improve what we do
16. … asks "what can we learn?"
17. … identifies measurable milestones that keep projects moving forward
18. … takes initiative in anticipating and responding to change

Enable Others to Act
19. … develops cooperative relationships

20. … actively listens to diverse points of view
21. … treats people with dignity and respect
22. … involves people in the decisions that directly impact their job performance
23. … gives people choice about how to do their work
24. … ensures that people grow in their jobs

Encourage the Heart
25. … praises people for a job well done
26. … expresses confidence in people's abilities
27. … makes sure that people are creatively recognized for their contributions to the success of our projects
28. … recognizes people for commitment to shared values
29. … tells stories of encouragement about the good work of others
30. … gets personally involved in recognizing people and celebrating accomplishments

Personal Sense of Power*

In rating each of the items below, please use the following scale.

In my relationship with my boss, **[boss name],**…

Scale: 1 = Strongly disagree, 2 = Disagree, 3 = Somewhat disagree, 4 = Neither agree nor disagree, 5 = Somewhat agree, 6 = Agree, 7 = Strongly agree

1. … I can get him/her/them to listen to what I say
2. … my wishes do not carry much weight (R)
3. … I can get him/her/them to do what I want
4. … even if I voice them, my views have little sway (R)
5. … I think I have a great deal of power
6. … my ideas and opinions are often ignored (R)
7. … even when I try, I am not able to get my way (R)
8. … if I want to, I get to make the decisions

Leader's Competence and Warmth

Using the scale below, select the option that best represents **how you view your boss, [boss name]**.

Scale: 1 = Not at all, 2 = A little, 3 = Somewhat, 4 = A lot, 5 = Extremely

Competence:
1. Competent
2. Confident
3. Skillful

Warmth:
1. Friendly
2. Warm
3. Sincere

Transformational Leadership

Please keep in mind the leader or manager of your work unit, **[boss name]**, which is your boss or leader that you interact with on a day-to-day basis.

Scale: 1 = Strongly disagree, 2 = Somewhat disagree, 3 = Neither agree nor disagree, 4 = Somewhat agree, 5 = Strongly agree

1. Has a clear understanding of where we are going
2. Has no idea where the organization is going (R)
3. Says things that make employees proud to be a part of this organization
4. Encourages people to see changing environments as situations full of opportunities
5. Challenges me to think about old problems in new ways
6. Has challenged me to rethink some of my basic assumptions about my work
7. Considers my personal feelings before acting
8. Behaves in a manner which is thoughtful of my personal needs
9. Acknowledges improvement in my quality of work
10. Personally compliments me when I do outstanding work

Task- and Relationship-oriented Leadership

For each item below, indicate on the scale the extent to which **your supervisor or boss** engage in the described behavior. Move through the items quickly. Do not try to categorize **your supervisor or boss** in one area or another.

Remember that **the boss you were thinking about is [boss name]**.

Scale: 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always

Task oriented
1. My boss makes a "to do" list of the things that need to be done
2. My boss urges others to concentrate on the work at hand
3. My boss sets timelines for when the job needs to be done
4. My boss stresses to others the rules and requirements for the project

Relationship oriented
1. My boss tries to make the work fun for others
2. My boss shows concern for the personal well-being of others
3. My boss helps group members get along
4. My boss spends time exploring other people's ideas for the project

Fake and Real News Politically Neutral Article Headlines

Fake News Headlines

The Controversial Files: Fake Cigarettes are Being Sold and Killing People, Here's how to Spot Counterfeit Packs

Scammers have recently been targeting those who have the already expensive habit by placing cheap cigarettes in name-brand cartridges, and gas stations are selling them at a...

THECONTROVERSIALFILES.NET

Billionaire founder of Corona beer brewery makes EVERYONE in his village a MILLIONAIRE in his will

THE billionaire founder of Corona beer has reportedly made his entire home village...

THESUN.CO.UK

Because Of The Lack Of Men, Iceland Gives $5,000 Per Month To Immigrants Who Marry Icelandic Women!

Breaking news about Iceland country incredible but true if you are interested read the full story Iceland team was able to achieve an unprecedented achievement in the European...

HOWAFRICA.COM

Man Kicked Out Golden Corral After Eating 50LBS Of Food; Sues For $2-Million

A man from Massachusetts is suing Golden Corral Corporation for 2 million dollars, for false advertising, after being literally thrown out of one of the chain's restaurants by the...

DEMICMEDIA.COM

Real News Headlines

Depression symptoms are common among active airline pilots, international survey reveals

Behind the self-confident gait, the friendly greeting and the air of superb competence, as many as 13% of the nation's commercial airline pilots may be suffering from depression,...

LATIMES.COM | BY MELISSA HEALY

Woman who had ovary frozen in childhood gives birth

She is believed to be the first woman in the world to have a baby after having ovarian tissue frozen before the onset of puberty

CBSNEWS.COM

Hitler's Austrian birthplace will be home for disability charity - BBC News

The house where Adolf Hitler was born will remain standing, Austrian MPs have decided.

BBC.COM

Yahoo Suffers World's Biggest Hack Affecting 1 Billion Users

Yahoo has discovered a 3-year-old security breach that enabled a hacker to compromise more than 1 billion user accounts, breaking the company's own humiliating record for the biggest security breach in history. The digital heist disclosed Wednesday occurred in...

ABCNEWS.GO.COM | BY ABC NEWS

Note: For each fake news and real news article, participants rated the following items. Items that assessed own vs coworkers' perceptions were counterbalanced.

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Expectation to Agree with the Article

Scale for each item: 1 = Not at all, 2 = Slightly, 3 = Moderately, 4 = Very much, 5 = Extremely

Imagine your boss sent this article to one of **your social media accounts**, you meet with them, and they ask you about the article. To what extent would **you be expected to openly agree with your boss, [boss name]**?

Coworkers' Expectation to Agree with the Article*

Imagine your boss sent this article to **your coworkers' social media accounts**, each of them meet with your boss, and your boss ask them about the article. To what extent would **your coworkers be expected to openly agree with your boss, [boss name]**?

Hiding Disagreement with the Article

Scale for each item: 1 = Not at all, 2 = Slightly, 3 = Moderately, 4 = Very much, 5 = Completely

If your boss, **[boss name]**, would bring up the article in a meeting with you and your coworkers, would **you hide your disagreement** with your boss?

Coworkers' Hiding Disagreement with the Article

If your boss, **[boss name]**, would bring up the article in a meeting with you and your coworkers, would **your coworkers hide their disagreement** with your boss?

Genuine Belief in the Article

Scale for each item: 1 = Not at all, 2 = Slightly, 3 = Moderately, 4 = Very much, 5 = Completely

How much would **you genuinely believe** in the article that your boss, **[boss name]**, shared?

Coworkers' Genuine Belief in the Article

How much would **your coworkers genuinely believe** in the article that your boss, **[boss name]**, shared?

Demographics and Political Ideology

Age

What is your age? (Please type a number below)

_____

Education

What is your highest education level?

1 = Primary school
2 = Secondary school
3 = Post-secondary (non-tertiary)
4 = Some college but no college degree
5 = Diploma or professional qualifications
6 = Bachelor's degree
7 = Master's degree
8 = Professional degree (MD, DDS, DVM, LLB, JD, DD)
9 = Doctorate degree (e.g., Ph.D. or Ed.D.)

Parental education

Have either of your parents or guardians graduated from college with a 4-year college degree (e.g., Bachelor's degree)?

1 = Yes
0 = No
2 = Not applicable
3 = I don't know
4 = Choose not to answer

Subjective SES

Think of this ladder as representing where people stand in the United States.

At the TOP of the ladder are the people who are the best off–those who have the most money, the most education, and the most respected jobs. At the BOTTOM are the people who are the worst off–who have the least money, least education, and the least respected jobs or no job. The higher up you are on this ladder, the closer you are to the people at the very top; the lower you are, the closer you are to the people at the very bottom.

Where would you place yourself on this ladder? Please indicate the rung where you think you stand at this time in your life, relative to other people in the United States: Rung scale: 1 to 10.

Political Ideology

Where would you place yourself politically on the following scale?
1 = Extremely liberal, 2 = Very liberal, 3 = Somewhat liberal, 4 = Neither liberal nor conservative, 5 = Somewhat conservative, 6 = Very conservative, 7 = Extremely conservative

Appendix B. Supplemental Analyses

Convergent and Divergent Validity for Each Study

Tables 5, 6, and 7, provide evidence of convergent and divergent validity for Studies 1, 2, and 3, respectively.

Table 5. Convergent and Divergent Validity of Leadership Styles in Study 1.

	Autonomous	Paternalistic	Authoritarian	
	M	M	M	F
Variable	(SD)	(SD)	(SD)	(2, 498)
	2.34_a	3.15_b	3.78_c	
Loyalty	(0.67)	(0.75)	(0.66)	145.45
	2.64_a	3.32_b	3.81_c	
Nepotism in Organizations	(1.14)	(1.30)	(1.56)	30.32
	4.26_a	3.75_b	3.39_c	
Leader's Competence	(0.69)	(0.88)	(1.04)	39.63
	4.21_a	3.33_b	2.54_c	
Leader's Warmth	(0.81)	(0.98)	(1.09)	109.63
Transformational	4.10_a	3.36_b	2.63_c	
Leadership	(0.55)	(0.83)	(1.00)	133.39
	3.52_a	3.57_a	3.49_a	
Task-oriented Leadership	(0.72)	(0.74)	(0.94)	0.30
Relationship-oriented	3.80_a	2.98_b	2.32_c	
Leadership	(0.72)	(0.77)	(0.93)	126.75

Note. Means with different subscript letters (i.e., a, b, c) represent a significant difference ($p < .05$) between those leadership styles.

Table 6. Convergent and Divergent Validity of Leadership Styles in Study 2.

	Autonomous	Paternalistic	Authoritarian	Laissez-faire	
	M	M	M	M	F
Variable	(SD)	(SD)	(SD)	(SD)	(3, 424)
	2.73_a	3.00_b	3.45_c	3.60_c	
Loyalty	(0.71)	(0.59)	(0.58)	(0.56)	38.86

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Variable					F
Nepotism in Organizations	2.74a	2.87a	3.61b	3.71b	
	(1.18)	(1.13)	(1.51)	(1.69)	13.32
Leader's Competence	3.90a	3.73a	3.15b	2.56c	
	(0.70)	(0.79)	(0.91)	(1.06)	51.44
Leader's Warmth	3.74a	3.50b	2.58c	2.03d	
	(0.80)	(0.91)	(1.03)	(1.05)	71.83
Transformational Leadership	3.89a	3.61b	3.05c	2.44d	
	(0.60)	(0.63)	(0.87)	(0.94)	78.10
Task-oriented Leadership	3.62a	3.64a	3.56a	2.95b	
	(0.67)	(0.75)	(0.73)	(1.00)	15.22
Relationship-oriented Leadership	3.58a	3.23b	2.72c	2.05d	
	(0.77)	(0.80)	(1.00)	(0.89)	61.69

Note. Means with different subscript letters (i.e., a, b, c, or d) represent a significant difference ($p < .05$) between those leadership styles.

Table 7. Convergent and Divergent Validity of Leadership Styles in Study 3.

Variable	Autonomous M (SD)	Paternalistic M (SD)	Authoritarian M (SD)	Laissez-faire M (SD)	F (3, 232)
Loyalty	2.26a	2.66b	3.51c	3.35c	
	(0.68)	(0.68)	(0.57)	(0.67)	32.89
Nepotism in Organizations	2.78a	3.35b	4.61c	4.47c	
	(1.04)	(1.16)	(1.29)	(1.33)	25.22
Leader's Competence	4.41a	4.15b	3.69c	3.18d	
	(0.64)	(0.68)	(0.79)	(0.85)	22.89
Leader's Warmth	4.19a	3.72b	2.83c	2.63c	
	(0.59)	(0.73)	(0.69)	(0.85)	47.82
Transformational Leadership	3.93a	3.49b	2.46c	2.30c	
	(0.61)	(0.62)	(0.71)	(0.51)	67.52
Task-oriented Leadership	3.94a	3.83a	3.41b	3.47b	
	(0.67)	(0.73)	(0.78)	(0.81)	5.33
Relationship-oriented Leadership	3.91a	3.29b	2.16c	1.83c	
	(0.70)	(0.76)	(0.71)	(0.57)	76.50

Note. Means with different subscript letters (i.e., a, b, c, or d) represent a significant difference ($p < .05$) between those leadership styles.

Robustness Analyses of Expectations to Agree with Fake News in Study 1

Intraclass correlation coefficient and cultural similarities

Although we recruited participants from four different countries (United States, United Kingdom, Canada, and Australia), we are reporting the results of agreeing with fake news aggregating the data from all these countries because the pattern of results from each country was similar from one country to the other as demonstrated by the low intraclass correlation coefficient (ICC), ICC<0.01. If the ICC was greater than 0.10, this would suggest that each country would be different from each other, and we would have had to control for the random effect of country in multilevel analyses.

Main effect of the style of leader on the expectation to agree with fake news controlling for accuracy ratings and other leadership characteristics

Moreover, to demonstrate the robustness of the effect, leadership style was related to different expectations to agree with misinformation after controlling for accuracy ratings of fake news, transformational leadership, and competence of the leader with multiple regression (see Table 8). Employees with authoritarian leaders agreed with fake news more than employees with autonomous leaders, b=1.063, $t(495)=7.279$, $p<0.001$, Cohen's $d=1.038$, and employees with paternalistic leaders agreed with fake news more than employees with autonomous leaders, b=0.484, $t(495)=5.021$, $p<0.001$, Cohen's $d=0.473$. Finally, people with authoritarian superiors agreed with misinformation more than employees with paternalistic leaders, b=0.578, $t(495)=4.305$, $p<0.001$, Cohen's $d=0.565$.

Table 8. Coefficients from multiple regression model of the expectations to agree with misinformation as a function of leadership style controlling for accuracy ratings of fake news, transformational leadership, and competence of the leader. Reference group is autonomous leaders. All regression coefficients are unstandardized.

Predictor	b	95% CI	*p*
Paternalistic Leader	.48	[.295; .674]	<.0001

Authoritarian Leader	1.06	[.776; 1.350]	<.0001
Accuracy of Fake News	.46	[.307; .621]	<.0001
Competence of Leader	.04	[-.077; .160]	.492
Transformational Leadership	-.15	[-.285; -.019]	.025
R^2	.26		

Main effect of the style of leader on expectation to agree with fake news controlling for demographics and political ideology

Moreover, to demonstrate the robustness of the effect, leadership style was related to different expectations to agree with misinformation after controlling for demographics (i.e., age, education of parents, subjective SES, and race), and political ideology (see Table 9). Employees with authoritarian leaders agreed with fake news more than employees with autonomous leaders, b=1.301, $t(479)$=10.343, p<0.001, Cohen's d=1.271, and employees with paternalistic leaders agreed with fake news more than employees with autonomous leaders, b=0.606, $t(479)$=6.592, p<0.001, Cohen's d=0.592. Finally, people with authoritarian superiors agreed with misinformation more than employees with paternalistic leaders, b=0.694, $t(479)$=5.249, p<0.001, Cohen's d=0.678.

Table 9. Coefficients from multiple regression model of the expectations to agree with misinformation as a function of leadership style controlling for demographics (i.e., age, education of parents, subjective SES, and race), and political ideology. Reference groups are autonomous leaders, no parental education, and White people for leadership styles, parental education, and race, respectively. All regression coefficients are unstandardized.

Predictor	b	95% CI	p
Paternalistic Leader	.61	[.426; .787]	<.0001
Authoritarian Leader	1.30	[1.054; 1.548]	<.0001
Age	-.01	[-.016; -.001]	.018
Parental education	.03	[-.141; .200]	.341
Subjective SES	-.04	[-.092; .009]	.108

Political ideology	.09	[.025; .145]	.006
Race	-.01	[-.212; .196]	.940
R^2	.23		

Interactions of leadership styles with other leadership characteristics

We did not control for other leadership characteristics in the models above because we found significant interactions with our measure of leadership styles. With a moderation analysis, we examined whether people will be more expected to agree with the authoritarian leader if the supervisor is low on relationship-orientation, high on task-orientation leadership, and low on warmth.

Interaction with relationship-oriented leadership on expectation to agree with fake news

The strength of the relation of leadership style on agreement with fake news varied with the relationship-orientation of the leader, β=-0.14, $t(497)$=-2.517, p=0.012 (see Table 10 and Figure 7). People with authoritarian leaders were more likely to agree with fake news the less relationship-oriented their boss was (simple slope: β=-0.22, $t(497)$=-2.49, p=0.01). The relation between relationship-oriented leadership style and agreement with fake news, however, was not reliable when people had paternalistic (simple slope: β=-0.08, $t(497)$=-1.48, p=0.14), or autonomous leaders (simple slope: β=0.07, $t(497)$=1.04, p=0.30).

Table 10. Coefficients from linear regression model of the expectations to agree with misinformation as a function of relationship-oriented leader interacting with leadership styles. Leadership styles were effect coded such that autonomous leaders = -1, paternalistic leaders = 0, and authoritarian leaders = 1. All other variables are standardized.

Predictor	β	95% CI	p
Relationship-oriented Leader	-.08	[-.177; .025]	.140
Leadership Styles	.56	[.422; .700]	<.0001

Relationship-oriented Leader x Leadership Styles	-.14	[-.251; -.031]	.012
R^2		.22	

Figure 7. Predicted standardized ratings of expectations to agree with misinformation as a function of leadership style and relationship-orientation leadership (N=501), shaded areas represent 95% confidence intervals.
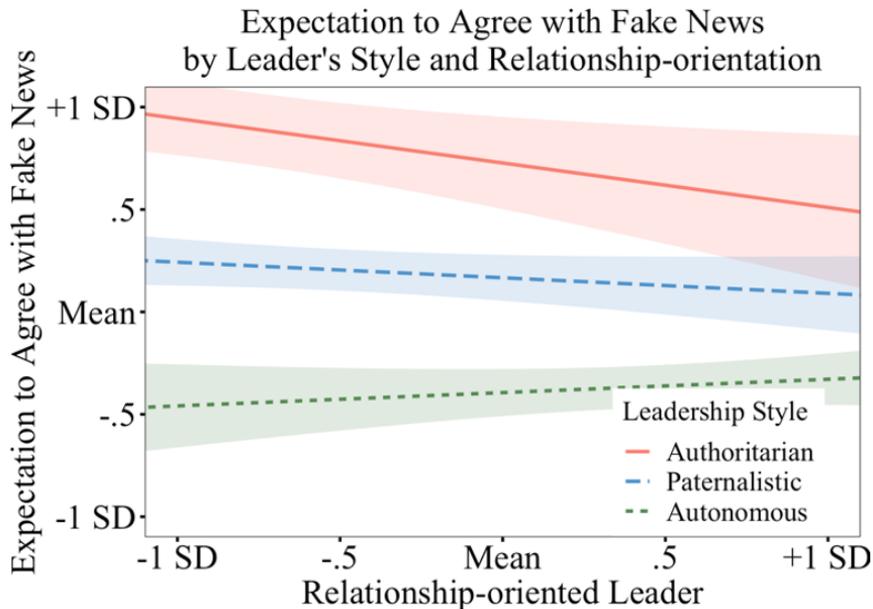


Interaction with warmth of leader on expectation to agree with fake news

The strength of the relation of leadership style on agreement with fake news varied with the warmth of the leader, β=-0.18, $t(497)$=-3.274, p=0.001 (see Table 11 and Figure 8). People with authoritarian leaders were more likely to agree with fake news the less warm their boss was (simple slope: β=-0.39, $t(497)$=-4.73, $p<0.01$), followed by paternalistic leaders (simple slope: β=-0.21, $t(497)$=-4.34, $p<0.01$). The relation between the warmth of leader and agreement with fake news, however, was not reliable when people had autonomous leaders (simple slope: β=-0.03, $t(497)$=-0.47, p=0.64).

Table 11. Coefficients from linear regression model of the expectations to agree with misinformation as a function of leader's warmth interacting with leadership styles. Leadership styles were effect coded such that autonomous leaders = -1, paternalistic leaders = 0, and authoritarian leaders = 1. All other variables are standardized.

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Predictor	β	95% CI	p
Leader's Warmth	-.21	[-.307; -.115]	<.0001
Leadership Styles	.45	[.321; .586]	<.0001
Leader's Warmth x Leadership Styles	-.18	[-.291; -.073]	.001
R^2	.24		
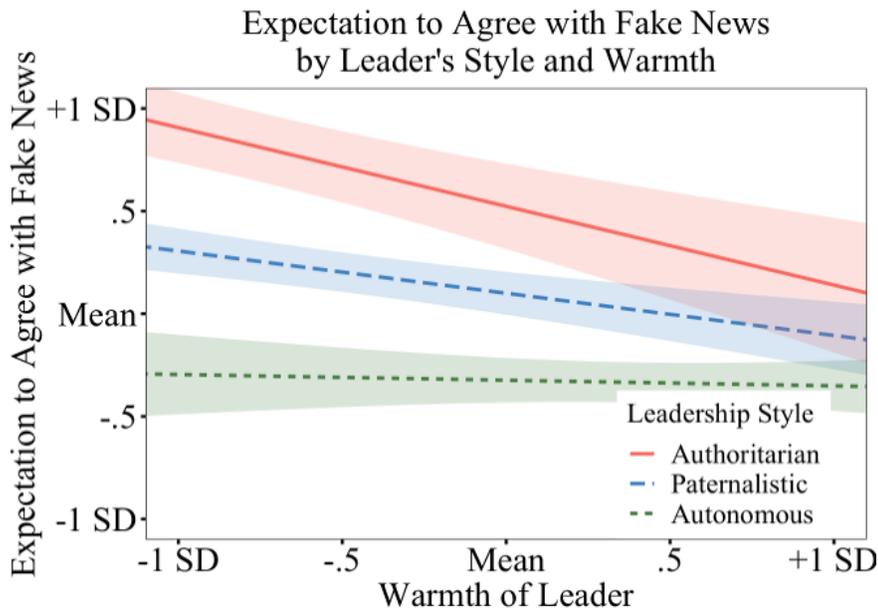
Figure 8. Predicted standardized ratings of expectations to agree with misinformation as a function of leadership style and warmth of the leadership, controlling for accuracy ratings of the fake news (N=501), shaded areas represent 95% confidence intervals.

Interaction with task-oriented leadership on expectation to agree with fake news

The strength of the relation of leadership style on agreement with fake news varied with task-orientation leadership, β=0.12, t(497)=2.362, p=0.019 (see Table 12 and Figure 9). People with authoritarian leaders were more likely to agree with fake news the more task-oriented their boss was (simple slope: β=0.25, t(497)=3.27, p<0.01), followed by paternalistic leader (simple slope: β=0.13, t(497)=3.06, p<0.01). The relation between task-oriented leadership and agreement with fake news, however, was not reliable when people had autonomous leaders (simple slope: β=0.01, t(497)=0.16, p=0.88).

Table 12. Coefficients from linear regression model of the expectations to agree with misinformation as a function of task-oriented leader interacting with leadership styles. Leadership styles were effect coded such that autonomous leaders = -1, paternalistic leaders = 0, and authoritarian leaders = 1. All other variables are standardized.

| Predictor	β	95% CI	p
Task-oriented Leader	.13	[.046; .211]	.002
Leadership Styles	.64	[.529; .747]	<.0001
Task-oriented Leader x Leadership Styles	.12	[.020; .220]	.019
R^2	.22		
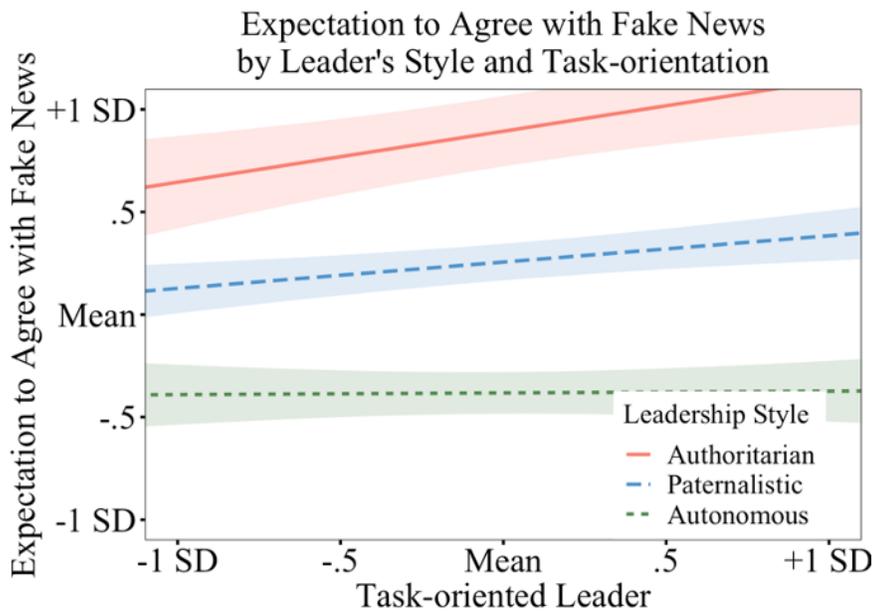
Figure 9. Predicted standardized ratings of expectations to agree with misinformation as a function of leadership style and task-oriented leadership, controlling for accuracy ratings of the fake news (N=501), shaded areas represent 95% confidence intervals.

Robustness Analyses of Expectations to Agree with Fake News in Study 2

We did not find any interaction of our leadership style measure with any leadership characteristics in Study 2 (all ps > .05). Thus, we will control for all leadership characteristics in the following analyses.

Main effect of the style of leader on the expectation to agree with fake news controlling for accuracy ratings and other leadership characteristics

Leadership style was not related to different expectations to agree with misinformation after controlling for accuracy ratings of fake news and other leadership characteristics (see Table 13). Employees with authoritarian leaders were equally likely to agree with fake news compared to those with laissez-faire, paternalistic, or autonomous leaders. Notably, accuracy of fake news is mostly driving this effect.

Table 13. Coefficients from multiple regression model of the expectations to agree with misinformation as a function of leadership style controlling for accuracy ratings of fake news, transformational leadership, and competence of the leader. Reference group is autonomous leaders. All regression coefficients are unstandardized.

Predictor	b	95% CI	p
Paternalistic Leader	-.04	[-.218; .141]	.673
Authoritarian Leader	.11	[-.154; .376]	.410
Laissez-faire Leader	.01	[-.263; .280]	.951
Accuracy of Fake News	1.10	[.981; 1.220]	<.0001
Competence of Leader	.06	[-.063; .180]	.343
Warmth of Leader	.04	[-.083; .166]	.514
Transformational Leadership	-.30	[-.473; -.127]	.001
Task-oriented Leadership	.22	[.112; .336]	<.0001
Relationship-oriented Leadership	.06	[-.096; .215]	.455
R^2	.48		

Main effect of the style of leader on expectation to agree with fake news controlling for demographics and political ideology

Moreover, to demonstrate the robustness of the effect, leadership style was related to different expectations to agree with misinformation after controlling for demographics (i.e., age, level of education, and subjective SES), and political ideology (see Table 14). Employees with authoritarian leaders agreed with fake news more than employees with autonomous leaders, b=.40, $t(359)=2.353$, $p=.019$, Cohen's $d=.382$. No other contrast of leadership style was statistically significant.

Table 14. Coefficients from multiple regression model of the expectations to agree with misinformation as a function of leadership style controlling for demographics (i.e., age, level of education, and subjective SES), and political ideology. Reference group is autonomous leaders for leadership styles. All regression coefficients are unstandardized.

Predictor	b	95% CI	p
Paternalistic Leader	.11	[-.142; .363]	.390
Authoritarian Leader	.40	[.066; .741]	.019
Laissez-faire Leader	.23	[-.086; .547]	.153
Age	-.02	[-.030; -.007]	.002
Level of Education	-.08	[-.178; .014]	.095
Subjective SES	.10	[.038; .169]	.002
Political ideology	.18	[.097; .260]	<.0001
R^2	.11		

Robustness Analyses of Expectations to Agree with Fake News in Study 3

We did not find any interaction of our leadership style measure with any leadership characteristics in Study 3 (all $ps > .05$). Thus, we will control for all leadership characteristics in the following analyses.

Main effect of the style of leader on the expectation to agree with fake news controlling for accuracy ratings and other leadership characteristics

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To demonstrate the robustness of the effect, leadership style was related to different expectations to agree with misinformation after controlling for accuracy ratings of fake news and other leadership characteristics (see Table 15). Employees with authoritarian leaders agreed with fake news more than employees with autonomous leaders, b=.56, $t(226)=2.348$, $p=0.019$, Cohen's $d=.55$, and employees with paternalistic leaders agreed with fake news marginally more than employees with autonomous leaders, b=.23, $t(226)=1.742$, $p=0.083$, Cohen's $d=0.23$. No other contrast of leadership style was statistically significant.

Table 15. Coefficients from multiple regression model of the expectations to agree with misinformation as a function of leadership style controlling for accuracy ratings of fake news, transformational leadership, and competence of the leader. Reference group is autonomous leaders. All regression coefficients are unstandardized.

Predictor	b	95% CI	p
Paternalistic Leader	.23	[-.030; .492]	.083
Authoritarian Leader	.56	[.090; 1.027]	.020
Laissez-faire Leader	.30	[-.208; .800]	.248
Accuracy of Fake News	.52	[.345; .684]	<.0001
Competence of Leader	.19	[.002; .384]	.048
Warmth of Leader	-.24	[-.457; -.030]	.026
Transformational Leadership	.03	[-.275; .338]	.839
Task-oriented Leadership	.01	[-.152; .173]	.899
Relationship-oriented Leadership	-.26	[-.518; -.007]	.044
R^2	.33		

Main effect of the style of leader on expectation to agree with fake news controlling for demographics and political ideology

Moreover, to demonstrate the robustness of the effect, leadership style was related to different expectations to agree with misinformation after controlling for demographics (i.e., age, level of education, and subjective SES), and political ideology (see Table 16). Employees with authoritarian leaders agreed with fake news more than employees with autonomous leaders, b=1.217, $t(181)=4.903$, $p<0.001$, Cohen's $d=1.211$, or paternalistic leaders, b=0.886, $t(181)=3.577$, $p<0.001$, Cohen's $d=0.881$. Employees with paternalistic leaders agreed with fake news more than employees with autonomous leaders, b=0.331, $t(181)=2.094$, $p=0.038$, Cohen's $d=0.329$. People with laissez-faire superiors agreed with misinformation more than employees with autonomous leaders, b=0.808, $t(181)=3.315$, $p=0.001$, Cohen's $d=0.804$, and marginally more than employees with paternalistic leaders, b=0.477, $t(181)=1.954$, $p=0.0522$, Cohen's $d=0.474$. The contrast between people with authoritarian and laissez-faire leaders remained non-significant.

Table 16. Coefficients from multiple regression model of the expectations to agree with misinformation as a function of leadership style controlling for demographics (i.e., age, level of education, and subjective SES), and political ideology. Reference group is autonomous leaders for leadership styles. All regression coefficients are unstandardized.

Predictor	b	95% CI	p
Paternalistic Leader	.33	[.019; .643]	.038
Authoritarian Leader	1.22	[.727; 1.706]	<.0001
Laissez-faire Leader	.81	[.327; 1.289]	.001
Age	-.01	[-.025; .010]	.403
Level of Education	.01	[-.064; .075]	.877
Subjective SES	-.04	[-.137; .067]	.499
Political ideology	.11	[-.007; .226]	.065
R^2	.17		

Robustness Analyses of Expectations to Agree with Fake News in Study 4

We did not find any interaction of our leadership style measure with any leadership characteristics in Study 4 (all $ps > .05$). Thus, we will control for all leadership characteristics in the following analyses.

Main effect of the style of leader on the expectation to agree with fake news controlling for accuracy ratings and other leadership characteristics

To demonstrate the robustness of the effect, leadership style was related to different expectations to agree with misinformation after controlling for accuracy ratings of fake news and other leadership characteristics (see Table 17). Employees with authoritarian leaders agreed with fake news more than employees with autonomous leaders, b=0.679, $t(392)$=3.353, p<0.001, Cohen's d=0.616, and employees with paternalistic leaders agreed with fake news more than employees with autonomous leaders, b=0.289, $t(392)$=2.665, p=0.008, Cohen's d=0.262. Finally, people with authoritarian superiors agreed with misinformation more than employees with paternalistic leaders, b=0.390, $t(392)$=2.031, p=0.043, Cohen's d=0.354. The contrasts between people with laissez-faire leaders and other leadership styles were non-significant, except that those with laissez-faire leaders were marginally less likely to agree with misinformation than those with authoritarian leaders, b=-0.401, $t(392)$=-1.854, p=0.064, Cohen's d=0.363.

Table 17. Coefficients from multiple regression model of the expectations to agree with misinformation as a function of leadership style controlling for accuracy ratings of fake news, transformational leadership, and competence of the leader. Reference group is autonomous leaders. All regression coefficients are unstandardized.

Predictor	b	95% CI	p
Paternalistic Leader	.29	[.076; .502]	.008
Authoritarian Leader	.68	[.281; 1.077]	.001
Laissez-faire Leader	.28	[-.144; .701]	.196
Accuracy of Fake News	.88	[.740; 1.021]	<.0001
Competence of Leader	.22	[.072; .371]	.004
Warmth of Leader	-.10	[-.257; .053]	.198

Transformational Leadership	-.41	[-.607; -.203]	<.0001
Task-oriented Leadership	.04	[-.086; .165]	.537
Relationship-oriented Leadership	.01	[-.165; .194]	.875
R^2	.39		

Main effect of the style of leader on expectation to agree with fake news controlling for demographics and political ideology

Moreover, to demonstrate the robustness of the effect, leadership style was related to different expectations to agree with misinformation after controlling for demographics (i.e., age, level of education, and subjective SES), and political ideology (see Table 18). Employees with authoritarian leaders agreed with fake news more than employees with autonomous leaders, b=1.057, $t(394)$=5.173, $p<0.001$, Cohen's d=0.959, and employees with paternalistic leaders agreed with fake news more than employees with autonomous leaders, b=0.371, $t(394)$=3.132, p=0.002, Cohen's d=0.337. People with authoritarian superiors agreed with misinformation more than employees with paternalistic leaders, b=0.686, $t(394)$=3.243, p=0.001, Cohen's d=0.622. Finally, people with laissez-faire leaders agreed with misinformation more than employees with autonomous, b=0.874, $t(394)$=5.092, $p<0.001$, Cohen's d=0.793, or paternalistic leaders, b=0.503, $t(394)$=2.764, p=0.006, Cohen's d=0.456. The contrast between people with authoritarian and laissez-faire leaders remained non-significant.

Table 18. Coefficients from multiple regression model of the expectations to agree with misinformation as a function of leadership style controlling for demographics (i.e., age, level of education, and subjective SES), and political ideology. Reference group is autonomous leaders for leadership styles. All regression coefficients are unstandardized.

Predictor	b	95% CI	p
Paternalistic Leader	.37	[.138; .604]	.002
Authoritarian Leader	1.06	[.655; 1.459]	<.0001
Laissez-faire Leader	.87	[.537; 1.212]	<.0001
Age	-.001	[-.009; .008]	.886

Level of Education	.12	[.043; .189]	.002
Subjective SES	.05	[-.024; .115]	.196
Political ideology	.06	[-.002; .113]	.058
R^2	.14		