

APPENDIX A – STIMULI

Note. All stimuli were translated from (back-to-back translation starting with an English template). Stimuli text do not reflect the exact lay-out of the stimuli. Image was a constant. It should also be stressed that the correction as displayed here includes a mixture of a debriefing and the actual corrective message used.

Story 1: refugees enter Mannheim in busses



1. Truth

New measures for the transfer of asylum seekers in Mannheim.

Even during the Corona crisis, asylum seekers in Mannheim continue to be transferred. The Regional Council reports that a total of 42 persons were transferred from the initial reception facility to other city and county districts early in the morning on April 9th. Three minibuses and a coach were used for this purpose. Strict regulations are being implemented to ensure infection protection during the bus trips. There is a new, "more spacious" meeting point for the departure, as well as barriers and markings on the ground to ensure that the distance rules are observed. "However, it is not possible to completely prevent or rule out the possibility of families or couples travelling together being close to each other, especially while waiting for their departure," said the spokesperson for the Regional Council.

Correction (verification)

Factcheck: correct!

The article you just read is based on a factual story that was found to be true by the German fact-check organization Correctiv.org. See the [Fact-checking website here](#). The story you read about 42 refugees that entered Mannheim in three minibuses and a coach **is found to be true**.

The fact-checker also notes that refugees were standing close to each other when entering Mannheim. However, strict regulations were in place to adhere to the social distancing rules installed by the German government. This was also true: there were strict distancing rules in place when the migrants entered Mannheim.

The picture was shared by a Facebook user, and accurately depicts the situation of April 9, 2020. The spokesperson for the Regional Council was correctly quoted in this article. In short, in line with the article, we can conclude that:

- 42 refugees entered Mannheim during the corona crisis
- Strict regulations were in place to ensure that these migrants could follow the distance rules

2. Decontextualization

Asylum seekers do not comply with distance rules during transport

Even during the Corona crisis, asylum seekers in Mannheim continue to be transferred, with distance rules not being observed. The Regional Council reports that a total of 42 persons were transferred from the initial reception facility to other city and county districts early in the morning on April 9th. Three minibuses and a coach were used for this purpose. The asylum seekers did not comply with social distancing rules as they were standing in front of the initial reception facility while waiting for transport. "The asylum seekers stood close together and talked to each other and then boarded the buses," said the spokesperson for the Regional Council.

Debriefing and correction (used as fact-checker)

Factcheck: partially false!

The article you just read is a decontextualized version of a verified article. In this study, we deliberately exposed you and other participants to a **manipulated news story**. We deliberately misled you because we aimed to measure the effects of disinformation or false information on the perceived credibility of, and agreement with news items. Therefore, we had to show you and other participants a story that turned out to be untrue. As key aim of this study, we measure how credible and effective different types of false information are. You just read an article in which some real facts (**True: migrants entering Mannheim**) were placed in a different setting (**False: They did not obey the social distance rules**) to make them tell an untrue story.

As misinformation on the coronavirus is [very prominent and potentially dangerous](#), we think it is important to assess its influence. We therefore had to mislead you and other participants by exposing you to an article that turned out to be false.

Actual fact-checking information

Based on the following fact-checker of the German organization Correctiv.org, it can be concluded that the story is **partially false**: [See conclusions of fact-checking website Correctiv.org here](#). The fact-checker notes that refugees **were indeed standing close to each other when entering Mannheim, but it is untrue that they did not respect the distancing rules**. The picture was shared by a Facebook user, and accurately depicts the situation of April 9, 2020. However, the article you read includes some **incorrect, unverified statements**:

- **There is no evidence that the refugees did not obey distance rules, or that they were standing too close to each other.**
- In reality, **strict regulations were in place to adhere to the social distancing rules** installed by the German government. The quote about refugees not respecting social distancing rules was falsely attributed to this article.

- Although it is correct that 42 refugees entered Mannheim in three minibuses and a coach, **the story about refugees not respecting social distancing rules is untrue and deliberately added to the storyline to make it reflect another meaning that negatively depicts refugees.** The link above can be consulted to compare the factual, verified story to the de-contextualized story shown to you.
- The spokesperson for the Regional Council was incorrectly quoted in this article: **the spokesperson never said the things that are described in the article, and did not make any references to non-compliant behavior of refugees.** Rather, the spokesperson emphasized how the refugees complied with the new rules in place.

3. Fabrication

Asylum seekers do not respect the rules of distance and thus endanger us all.

Despite the Corona crisis, asylum seekers do not follow the social distancing rules. The Regional Council reports that a total of 42 people were crowded together by the initial reception center in the early morning of April 9th. They later boarded three minibuses and a tour bus. The vehicles were later spotted in a parking lot on the Rhine, where the asylum seekers were barbecuing together, listening to loud music and dancing traditional folk dances. "This wasn't the first time", said a spokeswoman for the government's office. "I personally think it's outrageous, people here are locked up at home and they risk our lives."

Debriefing and correction

Factcheck: false!

The article you just read is a fabricated new article about the coronavirus. In this study, we deliberately exposed you and other participants to a manipulated news story **because we aimed to measure the effects of disinformation or false information on the perceived credibility of, and agreement with news items.** Therefore, we had to show you and other participants a story that turned out to be untrue. As key aim of this study, we aim to measure how credible and effective different types of false information are. You just read an article in which the reality (**True: migrants entering Mannheim**) was distorted and manipulated to tell a completely different story that deviates from reality (**False: migrants were feasting and disrespecting the rules**).

As misinformation on the coronavirus is very prominent and potentially dangerous, we think it is important to assess its influence. We therefore had to mislead you and other participants by exposing you to an article that turned out to be false.

Actual fact-checking information

Based on the following fact-checker of the German organization Correctiv.org, it can be concluded that the story is **mostly false**: [Fact-checking website](#). The fact-checker notes that refugees were indeed standing close to each other when entering Mannheim, **but it is wrong that they did not comply with the measures.** The picture was shared by a Facebook user, and accurately depicts the situation of April 9, 2020. However, the fabricated article you read is mostly false and contains manipulated claims about the event:

- **There is no evidence that the refugees did not obey social distance rules, or that they were barbecuing together, listening to loud music and/or dancing traditional folk dances.**
- **In reality, strict regulations were in place to adhere to the social distancing rules installed by the German government.**

- **The local resident's quote was falsely attributed to this article.** Although it is correct that 42 refugees entered Mannheim in three minibuses and a coach, **the incorrect story about refugees partying is deliberately added to the storyline to make it reflect another meaning that negatively depicts refugees.** The link above can be consulted to compare the factual, verified story to the fabricated story shown to you.
- **The spokesperson for the Regional Council was incorrectly quoted in this article:** the spokesperson never said the things that are described in the article, and did not make any references to non-compliant behavior of refugees. Rather, the spokesperson emphasized how the refugees complied with the new rules in place.

Story 2: Runners spread Coronavirus



1. Truth

No higher risk of infection for athletes in corona times

If the weather is sunny it can get crowded on streets and in public parks. Some people see themselves endangered by the breath of joggers. A simulation by Belgian researchers now shows that droplet clouds can form in the slipstream of athletes. However, the study does not conclude that joggers are dangerous. According to the researchers, many factors would play a role for the risk of infection, such as the size of the virus load, the outside temperature and other conditions. Health experts also repeatedly point out how important exercise in fresh air is for health.

Correction (verification)

Factcheck: correct!

The article you read contains **verified information** about the coronavirus and the unproven role of athletes in spreading the infection. See the following fact-checker of Tagesschau that **verifies the claims made in this news story:** [Fact-checking article of Tagesschau.de.](#)

The fact-checker confirms that, in principle, one could be infected from droplets coming from athletes. However, in practice, the risk of being infected by passing athletes is minimal as there are many other factors that play a role. This means that, based on the expertise knowledge referred to in this article, runners are not as dangerous in causing infections as sometimes assumed. That being said, it is always important to respect social distancing rules installed by the government, and to be careful when going out.

The only support that points in the direction of the dangers of droplets of moisture in the air comes from computer simulations of research conducted at the University of Eindhoven. Yet, the conclusions based on simulations should be carefully assessed, as the reality is different from these simulations.

To get more detailed information on the health-risks associated with the coronavirus, you are recommended to consult information from official sources, such as the [Bundesministerium für Gesundheit](#), or the [WHO](#).

So, we can conclude that:

The coronavirus infection can spread via other people and moisture (droplets). Even though this means that runners, cyclists and other sportsmen can play a role in the spread of the virus, the evidence that they are extremely dangerous is limited and not conclusive. It is important to respect social distancing rules under all circumstances

2. Decontextualization

Corona: Two meters distance is not enough when running

If the weather is sunny it can get crowded on streets and in public parks. Some people see themselves endangered by the breath of joggers. A recent study by scientists in Belgium shows that joggers leave behind infectious clouds of droplets. The researchers warn: "If someone walks directly in the slipstream of a jogger, they will move into this cloud." Walkers and cyclists also risk contracting others with the coronavirus. If a runner wants to overtake a cyclist, it is best to start at a distance of 20 meters. Runners should keep ten meters distance and walkers at least five meters.

Debriefing and correction:

Factcheck: partially false!

The article you read contains an altered news story about the coronavirus, in which existing facts are placed outside their context to reflect another meaning. In this study, we deliberately exposed you and other participants to a **manipulated news story**. We deliberately misled you because we aimed to measure the effects of disinformation or false information on the perceived credibility of, and agreement with news items. Therefore, we had to show you and other participants a story that turned out to be untrue. As key aim of this study, we aim to measure how credible and effective different types of false information are. You just read an article in which some real facts (**True: infections spread via moisture**) were placed in a different setting to make them tell an untrue story (**False: people sporting outdoors are very dangerous**).

As misinformation on the coronavirus is very prominent and potentially dangerous, we think it is important to assess its influence. We therefore had to mislead you and other participants by exposing you to an article that turned out to be false.

Actual fact-checking information

See the following fact-checker that shows that the claims made in this news story are **partially false**: [Fact-checking article of Tagesschau.de](#). The quote of the researcher that states that moving into the slipstream of a jogger is dangerous, and that walkers and cyclists are also a huge risk factor in the spread of the virus is not verified and deliberately placed in this article to make the story reflect another meaning than the original verified news article. See a short overview of true and false claims below:

- **There is no evidence that moving in the slipstream of a jogger is as dangerous as assumed in the article**
- The fact-checker shows that, in principle, one could be infected from droplets coming from athletes. However, in practice, the risk of infection is minimal as there are many other factors that

play a role. **This means that runners, cyclists or walkers are not as dangerous in causing infections than assumed in the article you read**

- **There is no evidence that keeping large distances is needed in order to prevent infections.**
- **That being said, it is always important to respect social distancing rules installed by the government and to be careful when going out.**
- **The only support that points in the direction of the dangers of droplets of moisture in the air comes from computer simulations** of research conducted at the University of Eindhoven. Yet, the conclusions based on simulations should be carefully assessed, as [the reality is different from these simulations](#).

To get more detailed information on the health-risks associated with the coronavirus, you are recommended to consult information from official sources, such as the [Bundesministerium für Gesundheit, or the WHO](#).

3. Fabrication

Corona: Joggers are dangerous!

If the weather is sunny it can get crowded on streets and in public parks. Some people see themselves endangered by the breath of runners. Runners and other athletes can be highly contagious because they leave infected drips carrying the virus when breathing and sweating. Studies show that you can easily get infected with the corona virus if you get close to them. Walkers often complain because runners, walkers and cyclists populate the parks and footpaths and hardly keep their distance when overtaking. The researchers warn: “Athletes risk the lives of others if they do not keep their distance!”

Debriefing and correction

Factcheck: false!

The article you read contains a fabricated news story about the coronavirus. In this study, we deliberately exposed you and other participants to a manipulated news story, **because we aimed to measure the effects of disinformation or false information on the perceived credibility of, and agreement with, news items**. Therefore, we had to show you and other participants a story that turned out to be untrue. As key aim of this study, we aim to measure how credible and effective different types of false information are. You just read an article in which a small fraction of reality (**True: infections spread via moisture**) was manipulated and altered to fabricate a completely different story (**False: people being outdoors are very dangerous**).

As misinformation on the coronavirus is [very prominent and potentially dangerous](#), we think it is important to assess its influence. We therefore had to mislead you and other participants by exposing you to an article that turned out to be false.

Actual fact-checking information

See the following fact-checker that shows that the claims made in this news story are mostly false: [Fact-checking article of Tagesschau.de](#). The quote of the researcher that states that **runners and other athletes are highly contagious as they leave infected virus-carrying drips is a false, unverified claim deliberately placed in this article to make the story reflect a completely different meaning than the original article it was based on**. The fact-checker shows that, in principle, one could be infected from

droplets coming from athletes. However, in practice, the risk of infection is minimal as there are many other factors that play a role. This means that:

- **There is no evidence that athletes are as dangerous in causing infections as assumed in the article you read:** There is no evidence that keeping large distances is needed in order to prevent infections, or that athletes risk the lives of others when running outside. That being said, it is always important to respect social distancing rules installed by the government and to be careful when going out.
- **The only support that points in the direction of the dangers of droplets of moisture in the air comes from computer simulations** of research conducted at the University of Eindhoven. Yet, the conclusions based on simulations should be carefully assessed, as [the reality is different from these simulations.](#)

To get more detailed information on the health-risks associated with the coronavirus, you are recommended to consult information from official sources, such as the [Bundesministerium für Gesundheit, or the WHO.](#)

APPENDIX B – ADDITIONAL STUDY INFORMATION

Table 1. Number of participants and information on the exclusion criteria

Exclusion criterion	N
Total N recruited	3154
Exclusion based on	1664
duration of completion > 24 hours	30
quota on age, gender and education	1421
straight-lining	131
dropouts	82
Total N retained	1490

Table 2. Distribution of participants per experimental condition

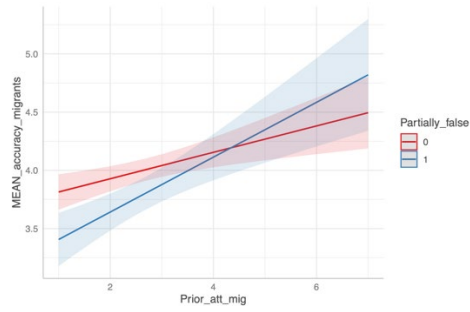
Experimental conditions	N
Step 1: Misinformation exposure	
Real information	483
Decontextualized information	500
Completely fabricated information	507
Step 2: Factchecking	
Present	741
Absent	749
Misinformation x Factchecking	
Real x FC	243
Decontextualized x FC	247
Fabricated x FC	251

Table 3. Population (applied quota) and sample composition

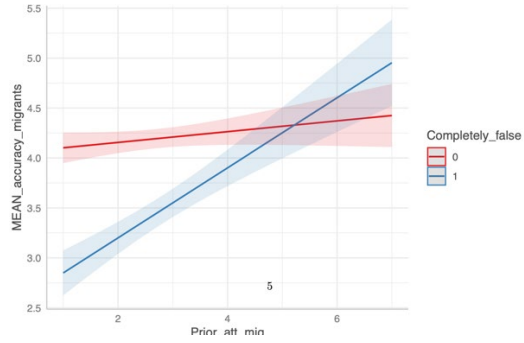
	Population	Sample	<i>N</i>
Gender			
male	49%	49.3%	734
female	51%	50.7%	756
Age (<i>M</i> = 48.6, <i>SD</i> = 16.15)			
18 – 39	34%	33.6%	500
40 – 59	34%	35.5%	529
60 +	31%	30.9%	461
Education			
Low	37%	36.6%	545
Medium	31%	31.3%	467
High	33%	31.9%	475

APPENDIX C – MARGINAL EFFECT PLOTS

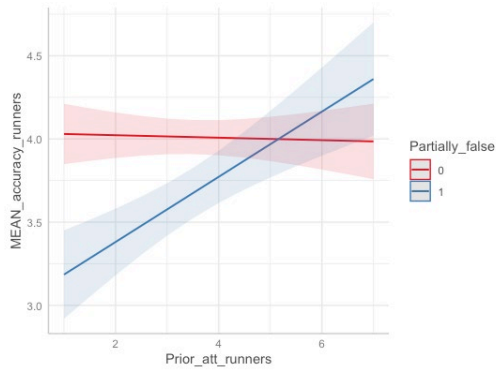
Prior attitudes migration \times partially false on perceived credibility



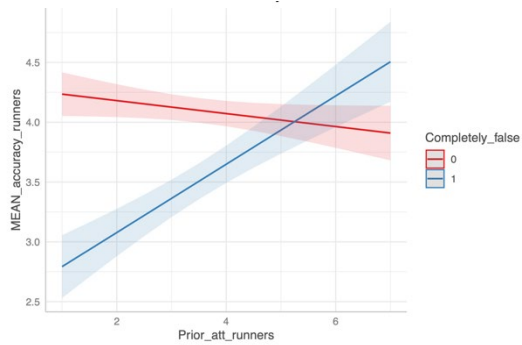
Prior attitudes migration \times completely false on perceived credibility



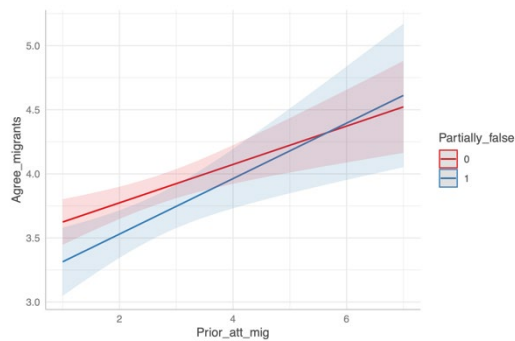
Prior attitudes runners \times partially false on perceived credibility



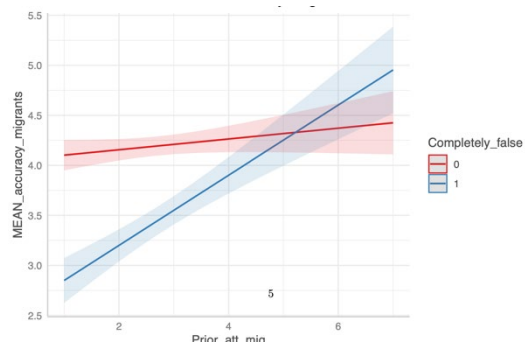
Prior attitudes runners \times completely false on perceived credibility



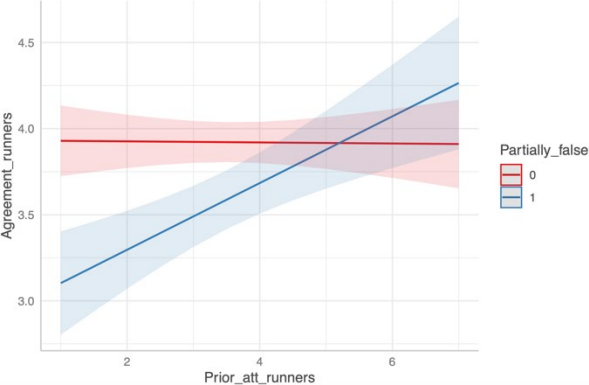
Prior attitudes migration \times partially false on agreement



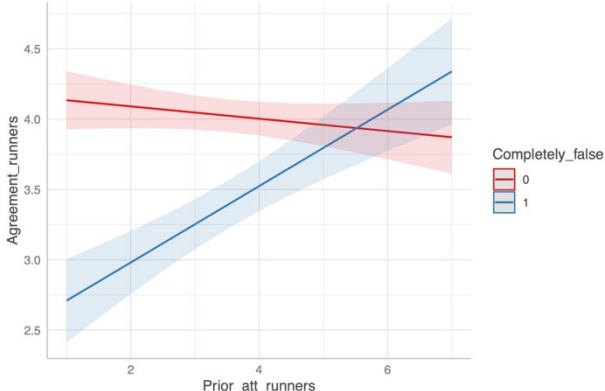
Prior attitudes migration \times completely false on agreement



Prior attitudes runners × partially false on agreement

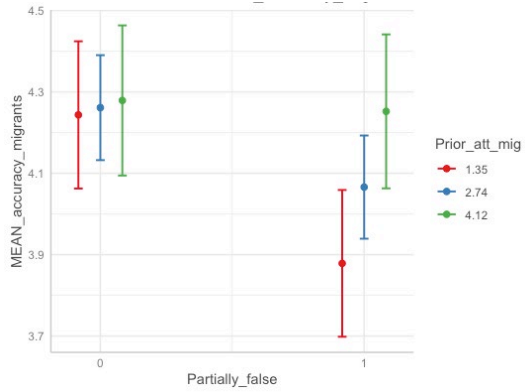


Prior attitudes runners × completely false on agreement

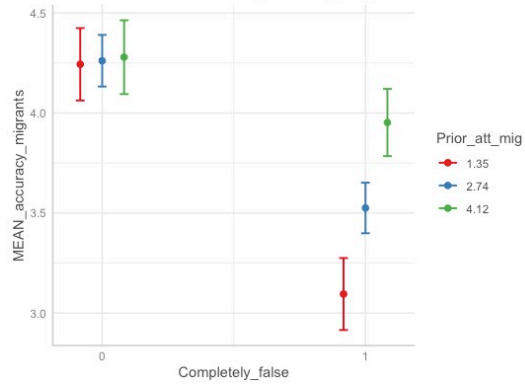


Marginal effect plots for binning estimators

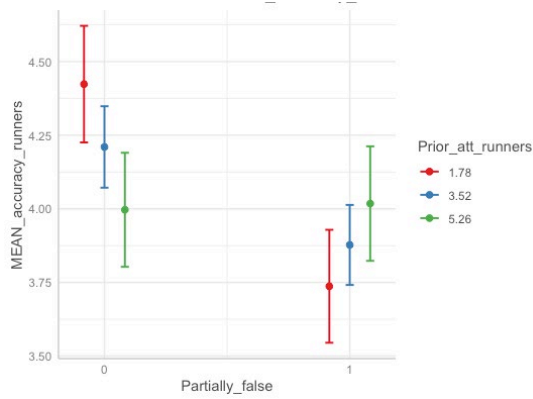
Prior attitudes migration × partially false on perceived credibility



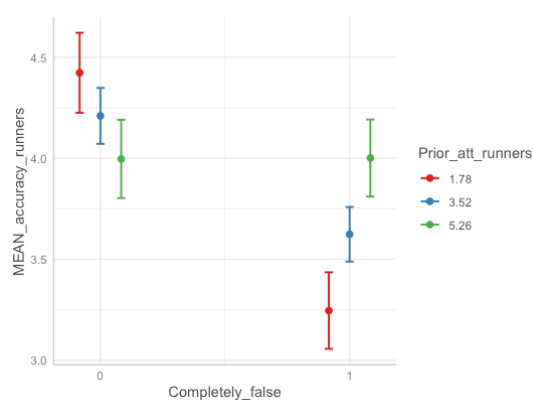
Prior attitudes migration × completely false on perceived credibility



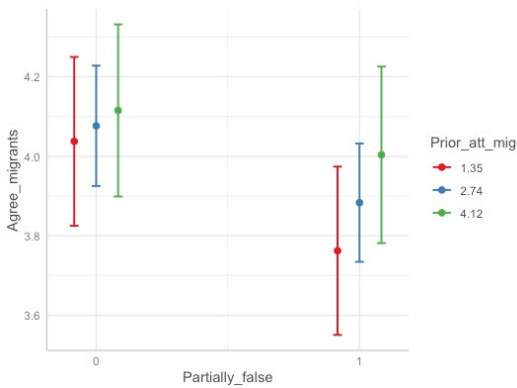
Prior attitudes runners × partially false on perceived credibility



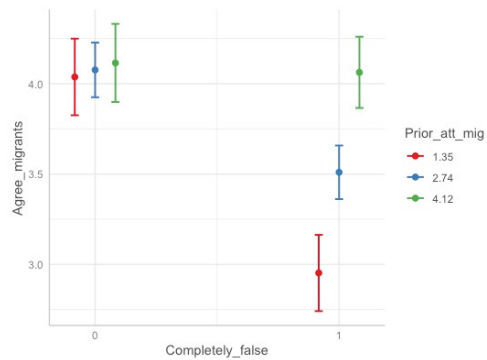
Prior attitudes runners × completely false on perceived credibility



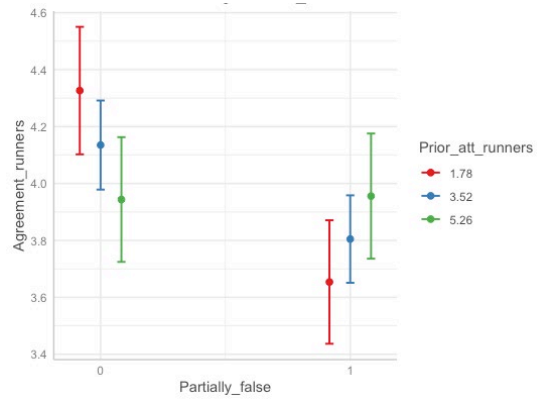
Prior attitudes migrants × partially false on agreement



Prior attitudes migrants × completely false on agreement



Prior attitudes runners × partially false on agreement



Prior attitudes migrants × completely false on agreement

