

# MASTERARBEIT | MASTER'S THESIS

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Unmasking Conspiracy Thinking: A Masked Priming Study  
Testing Belief-Based vs. Representation-Based Hypotheses of  
Conspiracy Theory Endorsement

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## Abstract

Conspiracy theories have become increasingly prevalent in public discourse, yet the cognitive mechanisms underlying their endorsement remain rather unclear. This master thesis investigated whether conspiracy theories function as internalized beliefs or strategic representations by examining implicit semantic processing through a masked priming paradigm. 41 participants completed a questionnaire testing the general conspiracy theory belief and a priming task with both masked and unmasked conditions. Primes consisted of conspiracy-related or science-related terms, followed by self-referential or other-referential targets. A  $2 \times 2$  repeated-measures ANOVA revealed a significant main effect of masking ( $F(1, 40) = 155.12, p < 0.001, \eta_p^2 = .80$ ) but no significant main effect of congruency ( $F(1, 40) = 1.72, p = 0.20, \eta_p^2 = .04$ ) or interaction ( $F(1, 40) = 2.74, p = 0.11, \eta_p^2 = .06$ ). Regression analyses found no significant relationship between GCB scores and congruency effects in either masked ( $b = 1.07, p = 0.89$ ) or unmasked conditions, with no significant interaction ( $b = 9.45, p = 0.62$ ). The absence of automatic semantic activation, even among individuals with high explicit conspiracy beliefs, suggests that conspiracy theories may function as context-dependent rhetorical resources rather than deeply internalized cognitive schemas. These findings support a representation-based account, indicating that conspiracy theory endorsement may serve strategic communicative and identity-related functions rather than reflecting genuine epistemic convictions.

**Keywords:** conspiracy theories, masked priming, implicit cognition, semantic processing

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## Introduction

Conspiracy theories become increasingly widespread and influential during times of uncertainty and severe societal crisis (Jolley & Douglas, 2014; Van Prooijen & Douglas, 2017). This trend was evident during the COVID-19 pandemic. In a survey conducted in Austria, 27% of the respondents stated that the true purpose of the COVID-19 restrictions differed from the official explanation (Statista, 2020). Similarly, a survey conducted by the University of Bonn found that 19% of German respondents fully agreed with the statement that politicians deliberately used the pandemic to restrict fundamental rights (Statista, 2024).

Although these figures suggest that people genuinely believe in these theories, a trend of conspiracy theories being strategically used in political discourse has been observed (Bergmann, 2025). For instance, following the 2020 U.S. election, Trump used Twitter to spread the unsubstantiated claim that he had been robbed of the election victory, a narrative that quickly evolved into the conspiracy theory of the "stolen election" and continues to fuel political polarization in the U.S. to this day (Wood & Finlay, 2008; DiMaggio, 2022; Moniz & Swann, 2025).

Social media plays a crucial role in disseminating and reinforcing these narratives. Algorithm-driven echo chambers and content loops isolate users, preventing them from consuming content with opposing views (Cinelli et al., 2022). Mainstream platforms such as Facebook and Telegram not only recommend similar content, but they also systematically expose consumers to more extreme versions of their preferences (Cinelli et al., 2022). DiMaggio (2022) demonstrated that social media platforms contributed significantly to the rise of the QAnon movement and the spread of false narratives about the pandemic.

For example, Donald Trump's tweet on November 7, 2020, falsely accusing the election of being rigged, was reposted over 700,000 times and liked by nearly a million people (Trump, 2020). Analysis showed that, after the 2020 election, 60% of Donald Trump's tweets aimed to undermine the election results' legitimacy (Issue One, 2021; DiMaggio, 2022).

Conspiracy theory narratives are not isolated phenomena. Rather, they come with certain harmful behaviors, shaping political discourse and influencing public health decisions (Sutton & Douglas, 2020). Several studies have shown that believing in conspiracy theories is associated with racist thinking, increased support for violence, and, ultimately, political disengagement (Douglas, 2021). Furthermore, van Mulukom et al. (2022) conducted a systematic review that showed robust associations between beliefs in conspiracy theories about the COVID-19 pandemic and vaccine hesitancy, lower willingness to follow protective measures such as wearing a mask or keeping the advised safety distance, and selfish behaviors such as hoarding. Conspiracy theories have also been linked to a lack of trust in elections and governmental institutions and the delegitimization of democratic processes (DiMaggio, 2022; Herold et al., 2021).

Given the broad influence of conspiracy on social discourse, it is crucial to understand why people engage in conspiratorial thinking in the first place. Understanding the motivation behind it ensures the ability to tackle the roots of the problem and allows the public and science to work on specific strategies to mitigate the consequences. This study aims to empirically investigate whether individuals process conspiratorial content as genuine beliefs or as strategic representations. To test this, we use the masked priming principle, which allows for the assessment of unconscious cognitive responses to conspiratorial stimuli, bypassing conscious self-presentation strategies (Forster & Davis, 1984).

## **Theoretical Background**

In the following chapter, I<sup>1</sup> will briefly explain what conspiracy theories are, how they differ from other familiar concepts, how current research has examined two different approaches when it comes to understanding conspiracy-theory belief and the concept of priming. Lastly, I will introduce my research hypothesis and its underlying framework.

### **Definition of Conspiracy Theories**

Conspiracy theories are simplified narratives of complex issues that suggest hidden, often devious actions made by powerful groups to manipulate or control events (Douglas et al., 2017). They are most often associated with major societal changes or significant incidents, such as 9/11, and can be found deeply rooted throughout human history (Van Prooijen & Douglas, 2017). By analyzing 104,803 randomly selected letters, sent to the New York Times and the Chicago Tribune between the years 1890 and 2010, two major peaks in the spread of conspiracy theories were identified: The first peak was just before 1900, marking the height of the Second Industrial Revolution. For society, the period meant a rapid change in power dynamics, fast technological advances, and the rise of large corporations. The second peak occurred between 1940 and 1950, which marked the beginning of the Cold War (Uscinski & Parent, 2014).

Similarly, historical accounts demonstrate that conspiracy theories are not a modern phenomenon, but rather, have long been employed as instruments of scapegoating and social control during times of crisis. For example, Scholz (2015) examined antisemitic pogroms during the Black Death pandemic of the 14<sup>th</sup> century, highlighting how Jewish people were falsely

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<sup>1</sup> During the development of this project, I received great support from Prof. Dr. Ulrich Ansorge (Professor of Cognitive Psychology at the University of Vienna) and Daniel Gugerell, MSc. (PhD. student at the University of Vienna, who programmed the experiment). Therefore, "we" and "us" are used where applicable.

accused of poisoning wells and deliberately spreading the plague. These conspiracy narratives were used to explain an uncontrollable epidemic, place blame on a targeted outgroup, and justify violent persecution. Scholz (2015) found that such explanations were often endorsed or tolerated by authorities and were accompanied by widespread violence, including torture, forced confessions, and massacres. Additionally, the article stresses that the accusations had no factual basis but were rooted in deeper social, religious, and economic tensions, illustrating how conspiracy beliefs can function as tools of exclusion and political manipulation. This historical example highlights the psychological and social mechanisms of conspiracy thinking, many of which continue to operate in contemporary settings (Scholz, 2015).

### **Differentiation from Other Concepts**

Although conspiracy theories often overlap with other non-evidence-based belief systems, such as paranormal beliefs or superstition, they are conceptually distinct. Conspiracy theories are characterized by the belief that powerful individuals or groups are secretly manipulating events for malevolent purposes, typically in ways that contradict official explanations (Douglas et al., 2019; Brotherton, 2015). This assumption of deliberate, coordinated deception by social actors distinguishes conspiracy beliefs from other belief systems.

While they are conceptually distinct, research showed that these different non-factual belief systems share a common cognitive basis, in particular ontological confusion and intuitive thinking. This suggests that conspiratorial thinking is less isolated but part of a general pattern of epistemically unfounded beliefs (Lobato et al., 2014).

## **Risk Factors for Belief in Conspiracy Theories**

Past studies have identified several risk factors for conspiracy theory endorsement. Individuals who are high on the Dark Tetrad were found to be more likely to engage in conspiracy theory beliefs (van Mulukom et al., 2022). These traits include Machiavellianism, narcissism, psychopathy, and sadism (Chabrol et al., 2009). Individuals high in these traits tend to be more suspicious, manipulative, and prone to antagonistic social behavior, which may predispose them to conspiratorial explanations (Bowes & Tasimi, 2023). Although agency detection is considered a beneficial evolutionary adaption for survival, hyperactive agency detection was positively correlated with conspiracy theory engagement (van der Tempel & Alcock, 2015). Attributing agency to inanimate objects was found to be a predictor for conspiracy theory belief (Imhoff & Bruder, 2014).

In addition to personality traits, several studies have examined the role of cognitive style differences as a factor in conspiracist ideation. Gjoneska (2021) proposes that deficits in analytical thinking, critical evaluation, and scientific reasoning influence the acceptance of epistemically unfounded beliefs, including conspiracy theories. Similarly, Swami et al. (2014) found that an analytical thinking style puts individuals at risk for engaging in conspiracy thinking. Furthermore, the endorsement of COVID-19 conspiracy theories was associated with several cognitive biases, including jumping to conclusions, liberal acceptance bias, and bias against disconfirmatory evidence (Kuhn et al., 2021).

Miller (2020) argues that impairments or functional alterations in brain regions involved in belief evaluation and decision-making, such as the ventromedial prefrontal cortex, may predispose individuals to resist scientific evidence and endorse conspiratorial narratives. These neural processes can reinforce cognitive biases such as confirmation bias, causing individuals to

focus on information that supports their existing beliefs while ignoring contradictory evidence (Miller, 2020).

Additionally, Goertzel (1994) introduced the concept of a monological belief system, suggesting that conspiracy theories often form a self-reinforcing network of beliefs rather than standing alone. People who believe in one conspiracy theory are more likely to believe in others, even when the theories are logically contradictory (Goertzel, 1994).

While there are findings about which personality traits, cognitive thinking styles, and cognitive biases make individuals more vulnerable to conspiracy theory ideation, conspiracy theories extend through all social classes and throughout the whole political spectrum (Giry & Tika, 2020).

### **Reasons for Believing in Conspiracy Theories**

Conspiracy theories can help to fulfill important psychological needs, especially in uncertain or threatening situations (Douglas et al., 2017). These needs fall into three broad categories: epistemic, existential, and social motives (Brotherton, 2013; Douglas et al., 2019).

The epistemic motive reflects the need for cognitive closure and the human drive for understanding (Biddlestone, 2025). Conspiracy theories offer simplified explanations for complex or chaotic events, providing cognitive closure (Douglas et al., 2019). Especially when official narratives are perceived as inconsistent or inadequate during crises such as terrorist attacks or pandemics (van Prooijen & Douglas, 2017). This was observed during the COVID-19 pandemic, where inconsistent messages to the public and delayed government response in the United States were, among others, the factors that led people to seek information elsewhere to

get the closure they needed. This involves discovering and accepting information lacking scientific foundation and originating from untrustworthy sources (Sauer et al., 2021).

Existential motives relate to the need for safety and control. People are more likely to believe in conspiracy theories when they feel powerless, threatened, or vulnerable (Imhoff & Lamberty, 2017). When situations are complicated and cannot be influenced or changed, conspiracy theories with simple explanations can provide a sense of order or power (Douglas et al., 2019). Research showed that belief in conspiracy theories increases when personal or collective control is perceived to be low (Whitson & Galinsky, 2008).

Social motives involve maintaining a positive self-image or affirming the identity of one's in-group. Conspiracy theories can provide individuals with a feeling of being morally superior and more informed than others ('I see what others don't') and give a sense of belonging (Cichocka et al., 2016; Poon et al., 2020). They can also function to blame external groups, governments, elites, and minorities for societal problems (Douglas et al., 2019).

It is important to note that individuals do not have to be consciously aware of these underlying motives. Rather, they may perceive conspiracy beliefs as a rational evaluation of evidence (Douglas et al., 2019).

According to the belief-based view, conspiracy theories are conceptualized as deeply internalized cognitive structures that influence automatic processing. Psychological theories such as belief perseverance (Anderson et al., 1980) and confirmation bias (Nickerson, 1998) suggest that once beliefs are established, individuals actively seek, interpret, and remember information in a way that reinforces these beliefs. This mechanism ensures that beliefs are not just transient opinions but become ingrained and resistant to change, even in the face of disconfirming

evidence. In the context of conspiratorial ideation, motivated reasoning processes can cause individuals to unconsciously align their self-concepts and worldviews with conspiratorial narratives (Kunda, 1990). Thus, the belief-based hypothesis predicts that conspiracy-related content activates automatic semantic associations with the self, independently of conscious deliberation.

### **An Alternative Hypothesis for Conspiracy Theories**

Conspiracy theories predominantly emerge after severe societal events, when official information remains rather unclear. These theories may aim to trigger emotional responses by offering contradictory explanations (Sunstein & Vermule, 2009). This perspective argues that individuals who endorse or spread conspiracy theories may not genuinely believe in them, but rather use them as rhetorical tools to provoke, manipulate, or obscure facts (Searle, 1979; Madisson & Ventsel, 2020).

This distinction between genuine belief and strategic representation can be theoretically anchored in Searle's (1979) 'Speech Act Theory'. According to this theory, communicative acts do not always aim to convey truthful information. Instead, they often serve as tools to achieve various social intentions. When applied to conspiracy theories, this distinction implies that individuals may communicate conspiratorial narratives without believing them, using these statements performatively to signal identity, challenge dominant discourses, or provoke reactions.

This view is consistent with recent research indicating that conspiracy claims may be used strategically as tools to mobilize, enhance engagement, and delegitimize opponents (Sapountzis & Condor, 2013; Bergmann, 2025). This principle has been observed in various

political discourses, particularly among extremist parties, which use conspiracy theories to achieve higher goals (Nissen, 2015; Kasekamp et al., 2019). For example, after the London bombings on July 7, 2005, researchers analyzed articles from the far-right British National Party (BNP) and found that conspiracy theories were used to promote racist ideologies and legitimize Islamophobic sentiment. These theories did not function as sincere beliefs but as discursive devices that reframed Muslims as an existential threat to British identity (Wood & Finlay, 2008). Furthermore, DiMaggio (2022) emphasizes that right-wing elites in the United States, heavily influenced by Donald Trump, intentionally promoted the "Big Lie" about election fraud as a strategic tactic to delegitimize political opponents and undermine trust in democratic institutions, thus manufacturing dissent to advance their own interests. Research suggests that creating 'information fog' is a tool used to confuse the public with contradictory conspiracy theories, ultimately influencing public discourse and strengthening power positions (Farkas & Schou, 2018; Madisson & Ventsel, 2020).

Social Identity Theory (Tajfel & Turner, 1986) provides a theoretical framework for understanding this phenomenon. Conspiracy theories can be seen as symbolic boundary markers that strengthen in-group cohesion and delineate out-groups, particularly in politically polarized contexts. From this perspective, endorsing or spreading conspiracy narratives is less about epistemic conviction and more about managing social identity and achieving communicative goals. Similarly, Sapountzis and Condor (2013) argue that conspiracy theories can serve as an intergroup strategy to delegitimize official narratives, reconfigure power hierarchies, and generate alternative historical accounts that support a group's political goals. In this sense, conspiracy claims are symbolic resources embedded in political discourse, rather than the result of distorted cognition or deficient reasoning.

Taking these studies into account, two explanations emerge for why people engage in conspiracy theories. The first suggests that conspiracy theorists are cognitively convinced that these theories are true. The second focuses on the strategic aspect of spreading conspiracy theories without actually believing in them. The distinction between belief-based and representation-based theories forms the basis of this study.

### **Priming Paradigm**

We use the priming paradigm to study this theory. This psychological method is often used to research automatic cognitive processes. It does so by showing how a prime affects responses to a following target. This uncovers underlying semantic or associative links (Draine & Greenwald, 1996; Dehaene & Naccache, 2001).

Masked priming builds on this methodology by presenting primes below the threshold of conscious awareness, where a masking stimulus prevents conscious perception of the primes while still allowing semantic processing (Forster & Davis, 1984; Van der Bussche, 2009). The advantages of masked priming include eliminating intentional strategies, thus providing insights into implicit cognitive mechanisms. In contrast, unmasked priming, where the prime can be consciously visible, participants can manipulate their responses based on the prime, reflecting intentional cognitive strategies (Ansorge et al., 2014).

This study uses a combination of masked and unmasked priming paradigms to investigate whether conspiracy theories are internalized beliefs or strategically employed representations. The primes include science-related terms (e.g., “Politiker”, “Doppelhelix”) and conspiracy-related terms (e.g., “Systemmedien”, “Frühsexualisierung”). These primes are paired with self-

referential targets (e.g., “ich”, “mein”) and other-referential targets (e.g., “andere”, “ihre”; Lukács & Ansorge, 2021).

Participants categorize the targets as self- or other-referential, while their reaction times and accuracy are documented. Additionally, participants complete the Generic Conspiracist Beliefs (GCB) Scale, an explicit questionnaire measuring their attitudes toward conspiracy theories (Brotherton et al., 2013). This allows for a direct comparison between implicit priming effects and explicit measures of belief.

The underlying assumption is that if individuals truly believe in conspiracy theories, congruent trials (e.g., conspiracy-related primes followed by self-referential targets) will result in faster reaction times and higher accuracy compared to incongruent trials. This would indicate a semantic alignment between the primes and the participants' self-concepts (Kiefer, 2007). Conversely, if the representation-based theory is correct, priming effects should differ significantly between masked and unmasked conditions, reflecting the strategic use of primes only when they are consciously accessible.

Masked priming paradigms have been extensively used in cognitive psychology to study implicit associations and unconscious semantic processing (Dehaene et al., 2001; Kiefer & Martens, 2007). Typical applications include studying stereotypes (Macrae & Martin, 2007) and implicit attitudes (Fazio & Olson, 2003).

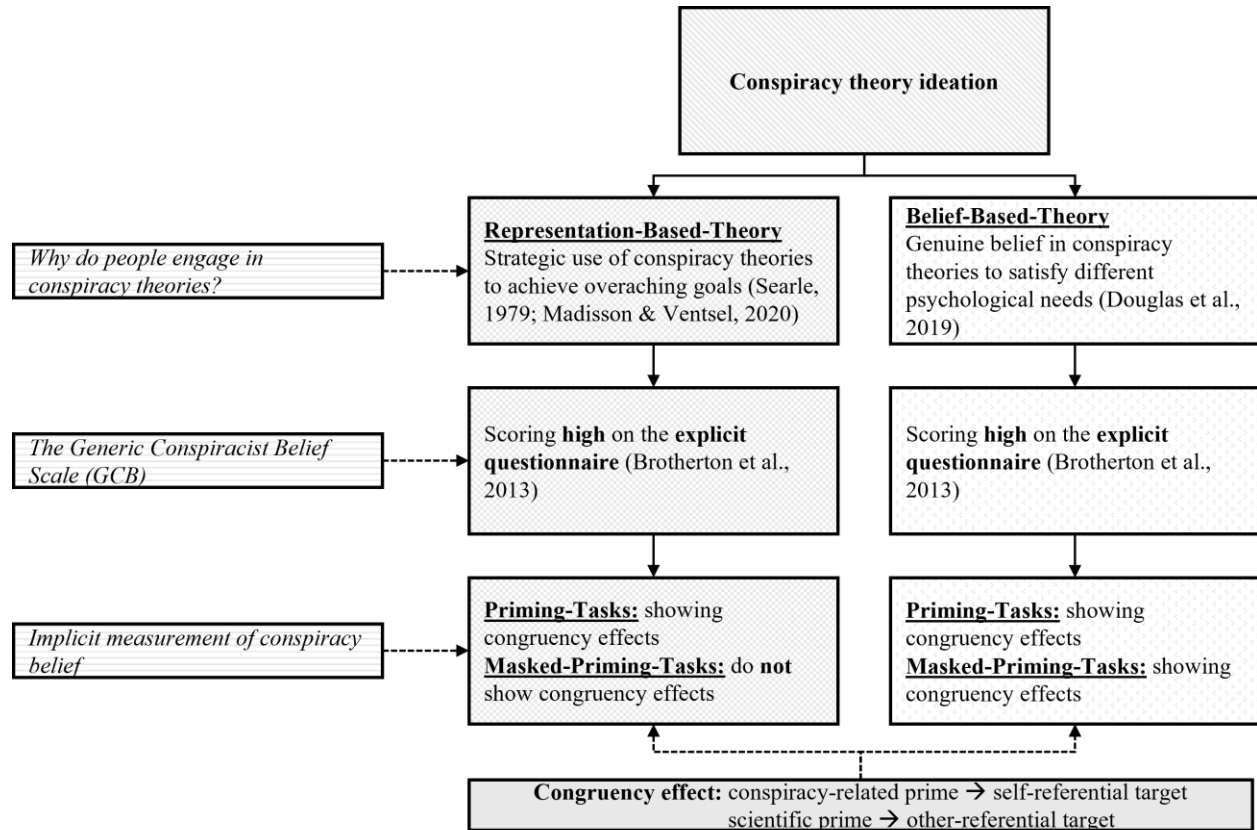
The present master's thesis aims to test two competing hypotheses. The belief-based hypothesis predicts that conspiracy-related primes will activate implicit semantic associations if participants genuinely believe in conspiracy theories, leading to congruency effects (faster reaction times and higher accuracy) in both masked and unmasked conditions. To validate this

hypothesis further, explicit questionnaire responses will be compared with reaction time data from the priming task. If conspiracy beliefs are truly internalized, participants with higher explicit conspiracy theory engagement should show stronger congruency effects for conspiracy-related primes in both masked and unmasked conditions. In contrast, the representation-based hypothesis states that when conspiracy theories are strategically represented, congruence effects for conspiracy-related primes are not visible in the priming experiment even though participants scored high on the explicit questionnaire for conspiracy theory belief. Figure 1 summarizes our theoretical framework.

Despite extensive research on the predictors and correlates of conspiracy belief endorsement, empirical studies investigating the cognitive processing mechanisms underlying conspiracist ideation remain scarce. To our knowledge, no previous study has used masked priming paradigms to experimentally differentiate between belief- and representation-based models of conspiracy thinking. Thus, the present study addresses an important gap by using implicit measures to test whether conspiracy beliefs are automatically activated or strategically employed.

The theoretical background leads to the following hypotheses:

1. Belief-Based Hypothesis: If participants genuinely believe in conspiracy theories, conspiracy-related primes will activate implicit semantic associations, leading to congruence effects (faster reaction times and higher accuracy) in both masked and unmasked conditions.
2. Representation-Based Hypothesis: If conspiracy theories are strategically used, congruence effects will not appear in the priming study even if the participant scored high for conspiracy theory belief at the explicit questionnaire.

**Figure 1***Integrated Framework for Representation-Based- and Belief-Based-Approach*

## Methods

The following chapter will provide an overview of our research design for testing the hypotheses stated in the previous chapter. I will also explain the tools used to ensure a thorough understanding of the study's core principles.

### Research Design

We conducted an experimental study with a within-subject design to test our hypothesis. The research consisted of three sequential parts: two items to measure demographic variables; the "Generic Conspiracist Beliefs Scale (GCB)," developed by Brotherton et al. (2013); and a masked and non-masked priming task, which we developed to address our research question. The entire experiment took approximately 30 minutes per participant and was carried out in a laboratory setting under supervision to ensure proper execution of the study.

Additionally, we darkened the room by switching off the lights to minimize external light sources. Tasks were presented on a 31 cm × 28.5 cm monitor with a resolution of 1920 × 1080 pixels and a screen refresh rate of 60 Hz. Participants were seated in front of the monitor with their gaze straight ahead and centered on the screen, which was 60 cm away.

First, participants completed a short demographic questionnaire to collect basic information, including age and gender. After answering the demographic questions, participants were automatically directed to the General Conspiracist Beliefs Scale (GCB) by Brotherton et al. (2013). This scale measured respondents' attitudes toward conspiracies. The questionnaire included validated items designed to assess the degree of agreement with conspiracy-related statements. The third and final part of the study was a mixed priming task consisting of masked and unmasked primes in random order.

These primes were either conspiracy- or science-related and were presented subliminally to ensure that participants were not consciously aware of the priming stimuli. Each masked-priming trial began with a fixation cross displayed for 750 milliseconds (ms), followed by a forward mask for 200 milliseconds (ms), then a prime for 35 milliseconds (ms), which appeared for a brief duration before being replaced by another mask for 35 milliseconds (ms).

Following the mask, participants were presented with a target word for 200 milliseconds (ms) that was either self-referential (e.g., “mein,” “ich”) or other-referential (e.g., “fremd,” “Andere”). Participants were instructed to categorize the target word by pressing either the “F” key or the “J” key on the keyboard in the next 3 seconds (sec).

The masked priming task consisted of 460 trials, with 400 being with a mask and 60 without masking. To be more specific, there were 100 trials per condition with a mask and 15 trials per condition without masking. The keys “F” and “J” were counterbalanced, to prevent confounding-influence associated with the keys. Reaction times were recorded using experimental software OpenSesame (Mathot et al., 2012) and accuracy rates were also tracked to ensure data reliability.

## **Sample**

The study included a total of 41 participants, who were recruited through the LABS system of the University of Vienna, an online participant pool used for studies that are conducted at the University of Vienna, and through personal networks. The largest group of participants was, therefore, undergraduate psychology students, which may influence the generalizability of the findings.

The majority of the respondents were between 19 and 25 years old (90.2%), with a few aged 18 (4.9%) or 26–30 (4.9%). Regarding gender, 80.5% identified as female ( $n = 33$ ), 17.1% as male ( $n = 7$ ), and 2.4% as other ( $n = 1$ ).

## **Instruments**

### ***Demographic Variables***

For the demographic variables, we used two self-constructed items. For gender the participants chose between “male”, “female”, “non-binary” and “prefer not to say”. We used the following age ranges: 0–18, 19–25, 26–30, 31–40, and 40+. Since being 18 or older was mandatory and ensured through informed consent, the first bracket only included 18-year-old respondents.

### ***Generic Conspiracist Beliefs Scale (GCB)***

Developed by Brotherton, French, and Pickering in 2013, the Generic Conspiracist Beliefs Scale (GCB) is a psychometric instrument designed to measure an individual’s tendency to believe in conspiracy theories in general. Unlike other conspiracy scales, which target specific theories, the GCB assesses beliefs in broad conspiratorial thinking. This provides a differentiated evaluation of conspiracist thinking across different conspiracy theory subtypes.

The GCB consists of 15 items, and participants answer on a 5-point Likert scale ranging from “definitely not true” to “definitely true.” The scale covers five dimensions: Government Malfeasance (e.g., the belief that governments cover up specific events to protect themselves and harm those who are not in power); Extraterrestrial Cover-Up (e.g., the belief in secret knowledge about alien life); Malevolent Global Conspiracies (e.g., the belief in control by hidden elites); Personal Wellbeing Conspiracies (e.g., the belief that the pharmaceutical industry suppresses

cures); and Control of Information (e.g., the belief in media manipulation). Each dimension consists of three items.

The GCB shows strong internal reliability (*Cronbach's*  $\alpha = 0.93$ ), and its criterion-related, convergent, and discriminant validity have been confirmed, along with its strong test-retest reliability (Brotherton et al., 2013). For our specific sample, the calculated *Cronbach's*  $\alpha$  via R was 0.92.

Since the experiment was conducted in German, the questionnaire was translated for our use. The validity of the translated questionnaire was ensured through back-translation.

To align the scores with the theoretical assumptions of agreement and disagreement, the item responses were recoded from a 1–5 Likert scale to a -2–+2 scale (with -2 indicating strong disagreement and +2 indicating strong agreement). The total score was calculated by summing all the item scores, resulting in an overall conspiracy belief score ranging from approximately -30 to +30. These scores were then z-standardized for inferential analyses.

### ***(Masked) Priming Experiment***

The instrument used in this study was a masked priming paradigm, designed to investigate the influence of conspiracy theory-related and science-related primes on the processing of self-referential and other-referential targets. For the conspiracy theory-related primes, content from multiple conspiracy theory websites was analyzed to extract words that are typically used for spreading and communicating conspiracy thinking. A total of 100 words for this category were identified, reflecting common themes and language patterns associated with conspiracy beliefs (e.g., “Echsenmenschen”, “Impfzwang”, “Deep-State”). These words were selected based on an analysis of online discussion forums (e.g. “AUF1”) known for

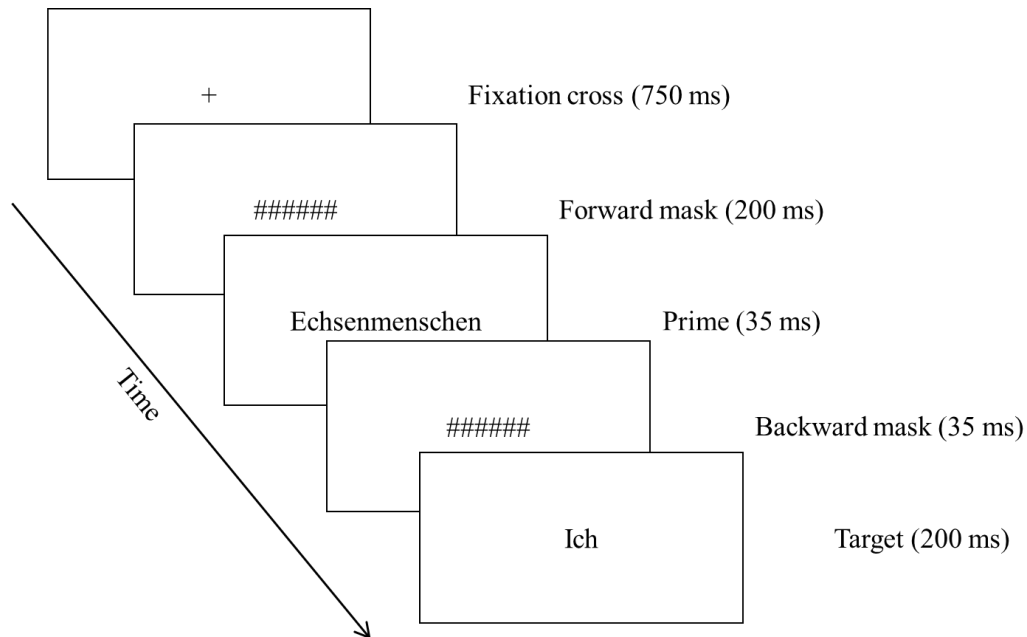
disseminating conspiracy theories. Frequently occurring terms related to conspiratorial or scientific content were identified across multiple forums. Words that appeared multiple times in user postings were compiled into one thematic category: "conspiratorial". No formal pre-testing of the stimuli was conducted; however, the thematic assignment of the words was reviewed independently by two raters to ensure category validity.

On the other hand, the 100 science-related primes consisted of terms that are widely recognized as representing scientific concepts or aligning with the scientific consensus (e.g., "Klimawandel", "Impfung", "Politik"). The aim was to create a clear contrast between the two types of primes in their implicit associations. Criteria such as word length, frequency, and valence are controlled to reduce linguistic confounds and ensure that observed effects are due to semantic alignment rather than confounding variables.

The targets were categorized as either self-referential or other-referential. Self-referential targets included words such as "mein", "mich", and "meiner" while other-referential targets included terms such as "ihre", "andere", and "fremd" (Figure 2). These targets were chosen to measure the participants' implicit self-other differentiation when influenced by the respective primes (Lukács & Ansorge, 2021).

**Figure 2**

Masked priming sequence



*Note.* Example for a congruent trial with a conspiracy related prime used in the experiment

No explicit prime visibility check was conducted following the priming task. Instead, masking parameters were set according to established subliminal presentation standards (e.g., Dehaene & Naccache, 2001), using a prime duration of 35 ms immediately followed by a mask. This procedure has been widely used to ensure unconscious processing without the need for individual visibility assessments.

### Statistical Analysis

The statistical analyses were conducted to evaluate both the effects of the experimental manipulation (masking and semantic congruency) and the role of individual differences in conspiracy beliefs. All analyses were performed using R (version 4.4.1).

### ***Repeated Measures ANOVA***

I conducted a 2 x 2 repeated-measures ANOVA to evaluate the effects of masking (masked vs. unmasked) and semantic congruency (congruent vs. incongruent) on reaction times (RTs). Both variables were within-subjects factors. The dependent variable was mean reaction time (in milliseconds) per condition. Prior to analysis, reaction time data were log-transformed to correct for positive skewness. Trials with incorrect responses or reaction times of  $\pm 2.5$  standard deviations from a participant's mean RT were excluded. In total, 5 trials (1.52% of all trials) were excluded due to outlier detection based on the  $\pm 2.5$  *SD* criterion.

Participants completed a total of 460 experimental trials, 400 in the masking condition and 60 in the unmasked condition. Each trial consisted of a prime (conspiracy-related or science-related) followed by a self- or other-referential target (e.g., “ich”, “mein”, “ihre”). Participants categorized the target as either self- or other-referential as quickly and accurately as possible.

### ***Regression Analysis***

To test the belief-based hypothesis, additional linear regression analyses were conducted using the Generic Conspiracist Beliefs Scale (GCB) score as a continuous predictor. Separate regression models were calculated for the masked and unmasked conditions, with the congruency effect as the dependent variable. This allowed us to investigate whether stronger endorsement of conspiracy beliefs predicted stronger semantic alignment between prime and self-related concepts. The GCB scale (Brotherton et al., 2013) was administered in its German version. Significance was evaluated at an alpha level of 0.05, and effect sizes ( $\eta^2_p$  for ANOVA,  $R^2$  for regression) were reported where applicable.

All statistical analyses were conducted using R (version 4.4.1) and all statistical tests were two-tailed. Repeated-measures ANOVAs were computed to test the effects of masking conditions and belief groups on congruency. Robust regression analyses were performed in cases of assumption violations. A post hoc sensitivity analysis using R indicated that with a total sample size of 41 participants, the study had 80% power to detect an interaction effect of at least  $f = 0.45$  (partial  $\eta^2 = .17$ ) at an  $\alpha = 0.05$ . Additionally, a separate sensitivity analysis for the main effect of Masking indicated that the study was sufficiently powered to detect a within-subjects effect of  $d = 0.45$ , corresponding to a small-to-medium effect according to Cohen's (1988) conventions.

## Results

### Descriptive Statistic

For the analysis we recoded 15 GCB items on a spectrum ranging from -2 to 2. Participants reported an average GCB score (total of all answer given) of  $M = -11.83$  ( $SD = 11.00$ ). A minimum of -29 and a maximum of 11 was found, with a 95%-CI of [-15.3, -8.36]. For inferential statistics, the GCB-Score was standardized. After z-standardization, scores ranged from  $z = -1.56$  to  $z = +2.08$ , with a mean of 0 and a standard deviation of 1. This standardization was used to simplify interpretation and comparability in subsequent analyses.

For the masked condition, the mean congruency effect was  $M = -0.02$  ms ( $SD = 16.83$ ), with a Minimum of -34.05 and a Maximum of 43.31 with 95% CI [-5.33, 5.29], indicating virtually no difference between congruent and incongruent trials. In contrast, the unmasked condition showed a larger congruency effect with  $M = 12.83$  ms ( $SD = 53.88$ ), suggesting greater interference from incongruent stimuli. The calculated Minimum was -115.08 and the Maximum 156.12, with a 95% CI [-4.18, 29.83].

**Table 1***Descriptive Statistics by Masking Condition*

| Masking           | unmasked |           |         |        | masked   |           |        |       |
|-------------------|----------|-----------|---------|--------|----------|-----------|--------|-------|
|                   | <i>M</i> | <i>SD</i> | Min     | Max    | <i>M</i> | <i>SD</i> | Min    | Max   |
| GCB Score         | -11.83   | 11        | -29     | 11     | -11.83   | 11        | -29    | 11    |
| Congruency Effect | 12.83    | 53.88     | -115.08 | 156.12 | -0.02    | 16.83     | -34.05 | 43.31 |

*Note.* *M* = Mean; *SD* = Standard Deviation; *n* = 41

**Inferential Statistics**

Inferential statistics were employed to determine whether observed differences and associations in the sample reflect effects at the population level. This includes repeated-measures ANOVAs and regression analyses to test the hypothesis for my specific research question.

***Explicit Conspiracy Belief and Reaction Times***

To examine whether explicit conspiracy belief (measured via the GCB scale) predicts the processing of conspiracy-related information in the priming paradigm, two linear regressions were conducted. In the first model, standardized GCB scores (*z*-Scores) were used to predict reaction times in the Conspiracy–Self condition. The effect was not statistically significant with  $\beta = -9.17$ ,  $SE = 12.67$ ,  $t(39) = -0.72$ ,  $p = 0.47$ .

Similarly, in the second model predicting reaction times in the Conspiracy–Other condition, no significant effect was found,  $\beta = -11.64$ ,  $SE = 13.71$ ,  $t(39) = -0.85$ ,  $p = 0.40$ .

These results suggest that individual differences in explicit conspiracy belief, as measured by the Generic Conspiracist Beliefs scale, do not systematically predict the speed of implicit responses to self- or other-related conspiracy primes.

### ***Hypothesis Testing***

To answer the hypotheses, both a repeated-measures ANOVA and a multiple regression analysis were conducted.

***Hypothesis 1.*** main effect of masking. To investigate whether the congruency effect was influenced by the masking condition, a 2 x 2 repeated-measures ANOVA was conducted with masking condition (masked vs. unmasked) and congruency effect (congruent vs. incongruent) as within-subjects factors.

Prior to conducting the 2 x 2 repeated-measures ANOVA, key assumptions regarding the distribution of residuals were tested. To assess whether the congruency effect (RT difference: Self - Other) was normally distributed in each masking condition, Shapiro-Wilk tests were conducted. For the masked condition, the test was non-significant,  $W = .98$ ,  $p = 0.61$ , indicating no significant deviation from normality. In the unmasked condition, however, the Shapiro–Wilk test was significant,  $W = .92$ ,  $p = 0.01$ , suggesting a deviation from normality.

Despite the significant result in the unmasked condition, visual inspection of the histograms and Q–Q plots revealed approximately normal distributions without strong skew or kurtosis. Given that the ANOVA is robust to moderate violations of normality, especially in within-subject designs with balanced data (Field, 2013), the analysis was considered appropriate.

As the ANOVA only involved two within-subject conditions per factor, the assumption of sphericity is automatically satisfied. The homogeneity of variance was implicitly controlled by

the within-subject design, and the absence of extreme variance differences between the masked and unmasked congruency effects supports this assumption.

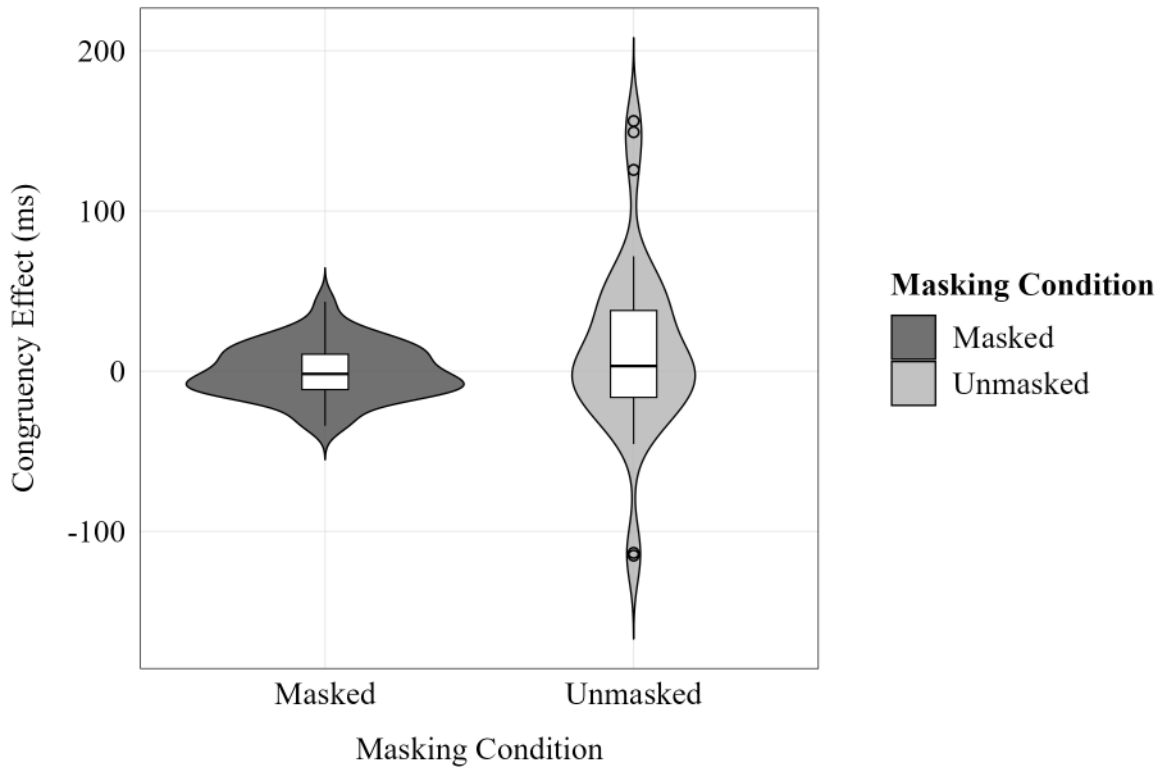
The analysis revealed a significant main effect of masking,  $F(1, 40) = 155.12, p < 0.001, \eta_p^2 = .80$ , meaning that participants responded faster in the masked compared to the unmasked condition. The effect size indicates a very large effect according to Cohen's (1988) conventions.

The main effect of congruency was not significant,  $F(1, 40) = 1.72, p = 0.20$ , suggesting no general congruency effect across the conditions, with  $\eta_p^2 = .04$ , indicating a small effect size. The interaction between masking and congruency did not reach significance,  $F(1, 40) = 2.74, p = 0.11, \eta_p^2 = .06$ , although a trend was found. These results are presented in Table 2 and the visualization of the congruency effect by condition is provided in Figure 3.

**Table 2**

*Repeated measures ANOVA*

| Effect                      | <i>df</i> | <i>F</i> | <i>p</i> | $\eta_p^2$ |
|-----------------------------|-----------|----------|----------|------------|
| Masking                     | 1, 40     | 155.12   | < 0.001  | .80        |
| Congruency                  | 1, 40     | 1.72     | 0.2      | .04        |
| Masking $\times$ Congruency | 1, 40     | 2.74     | 0.11     | .06        |

**Figure 3***Distribution of Congruency Effects by Masking Condition*

**Accuracy-ANOVA.** After analyzing the reaction time data, a separate analysis was conducted to assess accuracy rates across conditions. To assess potential differences in accuracy across experimental conditions, a 2 (Masking Condition: Masked vs. Unmasked) x 2 (Congruency: Congruent vs. Incongruent) repeated-measures ANOVA was conducted on arcsine-transformed accuracy rates. The arcsine transformation was applied because accuracy data showed ceiling effects (with most values clustered near 100%), which violates the normality assumption of ANOVA and creates heteroscedasticity. The arcsine transformation normalizes the distribution of proportion data and stabilizes variance across different accuracy levels (table 3).

The analysis revealed a significant main effect of Masking Condition,  $F(1, 40) = 11.23$ ,  $p = 0.002$ ,  $\eta_p^2 = .22$ , indicating that accuracy differed significantly between masked and unmasked

trials. The main effect of congruency was not significant,  $F(1, 40) = 2.17, p = 0.15, \eta_p^2 = .05$  suggesting that participants did not respond more accurately to congruent compared to incongruent trials. The interaction between Masking Condition and Congruency showed a trend toward significance,  $F(1, 40) = 3.81, p = 0.06, \eta_p^2 = .09$  but did not reach the conventional threshold for statistical significance.

**Table 3**

Descriptive statistics of untransformed accuracy rates (in %) by Masking Condition and Congruency.

| Masking Condition | Congruency  | <i>M</i> (%) | <i>SD</i> (%) |
|-------------------|-------------|--------------|---------------|
| Masked            | Congruent   | 94.41        | 3.23          |
| Masked            | Incongruent | 93.78        | 5.98          |
| Unmasked          | Congruent   | 95.28        | 4.01          |
| Unmasked          | Incongruent | 92.85        | 6.39          |

### ***Relationship between explicit beliefs and priming effects***

In addition to analyzing reaction times and accuracy rates, I examined whether the degree of explicit conspiracist belief was associated with semantic priming effects. To examine the relationship between explicit conspiracist beliefs and implicit semantic processing, a Pearson correlation was conducted between participants' GCB scores and their priming effects (reaction time difference between incongruent and congruent trials under unmasked conditions).

The analysis revealed no significant correlation,  $r(39) = -.17, p = 0.29, 95\% CI [-.45, .15]$  suggesting that stronger conspiracist beliefs were not associated with larger semantic priming effects.

***Hypothesis 2.*** Prior to conducting the regression analysis, assumptions of linear regression were tested. Analysis of the residuals indicated deviations from normality, further proven by a significant Shapiro-Wilk test ( $W = .90, p < 0.001$ ), a skewed residual histogram, and deviations from the diagonal in the Q-Q plot. Additionally, the residuals vs. fitted values plot did not show a clear funnel-shaped pattern, but some heteroscedasticity could not be ruled out. Despite this, multicollinearity was not a concern, as indicated by variance inflation factors (*VIFs*) below the common threshold of 5 (all *VIFs*  $\leq 2$ ). The assumption of linearity was supported by a scatterplot of the predictor against the outcome with roughly linear trends across masking conditions. Due to the violation of the normality assumption and potential heteroscedasticity, I used robust standard errors in the regression model. This approach corrects the standard errors and test statistics, providing more reliable inference under non-normal and heteroscedastic conditions.

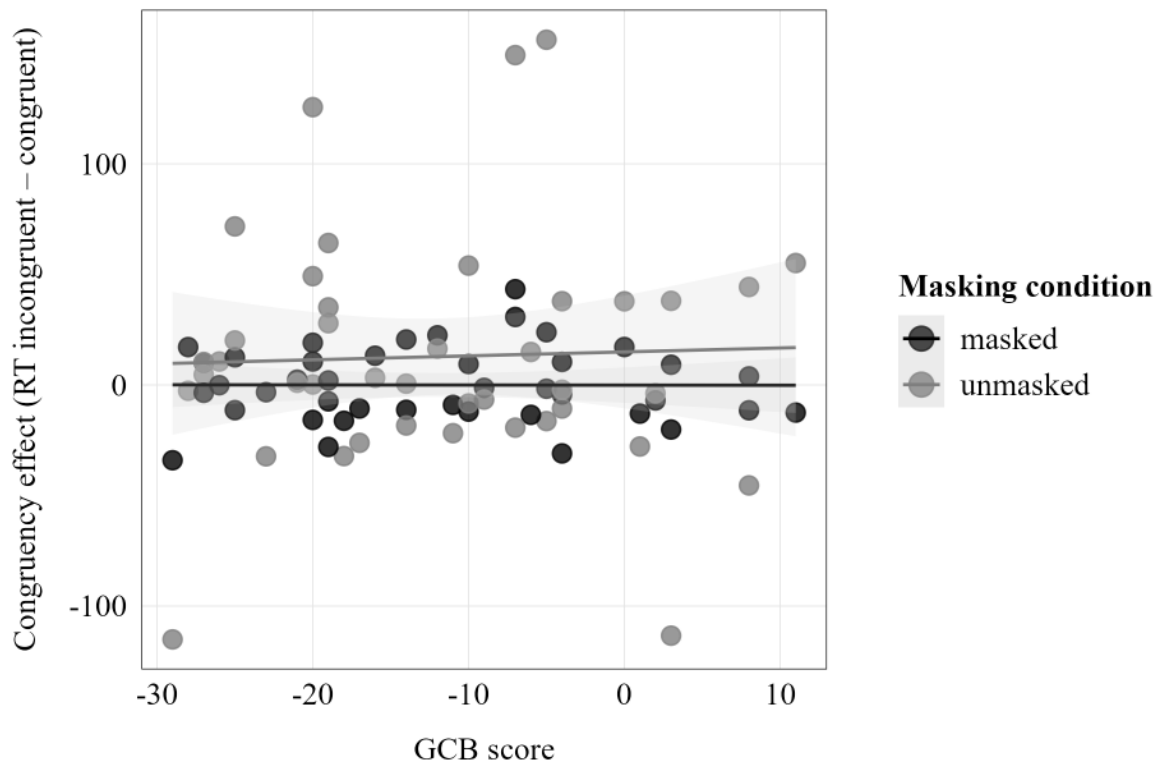
The second hypothesis investigated whether individual differences in the GCB-score predict the strength of the congruency effect in a masked priming task. Based on the representation-based hypothesis, we assumed that higher levels of conspiracy thinking would be associated with a stronger congruency effect, particularly in the masked condition, due to enhanced processing of semantically related stimuli outside conscious awareness. To test this hypothesis, a multiple linear regression analysis with robust standard errors was conducted, using the GCB score, masking condition (masked vs. unmasked), and their interaction as predictors. The congruency effect (reaction time difference: incongruent – congruent trials) served as the dependent variable. The regression model revealed no significant main effect of the GCB score,  $b = 1.07$ ,  $p = 0.89$ , and no significant interaction with masking,  $b = 9.45$ ,  $p = 0.62$ . Thus, our second hypothesis, that conspiracy beliefs would predict the congruency effect, particularly under masked conditions, was not supported by the data (see Table 3 and Figure 3).

**Table 3**

*Regression analysis predicting congruency effects*

| Predictor          | <i>b</i> | <i>SE</i> | <i>t</i> | <i>p</i> |
|--------------------|----------|-----------|----------|----------|
| Intercept          | -13.87   | 6.77      | -2.05    | .44      |
| GCB Score          | 1.07     | 7.699     | 0.14     | .89      |
| Masking (unmasked) | 1.73     | 17.31     | 0.998    | .92      |
| Score × Masking    | 9.45     | 19.02     | 0.497    | .62      |

*Note.* *b* = unstandardized coefficient; *SE* = standard error.

**Figure 4***Congruency effect (RT) as a function of GCB score*

*Note.* GCB = Generic Conspiracist Beliefs. Trend lines show linear regression with 95% confidence intervals.

To summarize, the repeated-measures ANOVA showed a significant main effect of masking, indicating that participants responded faster in the unmasked condition. However, neither a significant main effect of congruency nor a significant interaction between masking and congruency could be found. Similar outcomes could be found in the regression analysis, since it revealed no significant effects of conspiracy belief (GCB score) on the congruency effect, nor any significant interaction with masking. These findings provide partial, non-significant support for the belief-based account (Hypothesis 1) and no support for the representation-based account (Hypothesis 2).

### Explorative Analysis

A 2 (Masking Condition: masked vs. unmasked)  $\times$  2 (Belief Group: high vs. low) mixed-design ANOVA was conducted to explore potential differences in semantic congruency effects, with Masking Condition as a within-subjects factor and Belief Group as a between-subjects factor. The analysis revealed no significant main effect of Belief Group,  $F(1, 39) = 0.11$ ,  $p = 0.74$ ,  $\eta_p^2 = .003$ , indicating that participants with higher levels of conspiracy beliefs did not differ in their congruency effects compared to those with lower levels of conspiracy beliefs. Similarly, the main effect of Masking Condition was not significant,  $F(1, 39) = 2.70$ ,  $p = 0.11$ ,  $\eta_p^2 = .065$  suggesting that prime visibility did not influence the magnitude of the congruency effect. The interaction between Belief Group and Masking Condition was also non-significant,  $F(1, 39) = 0.07$ ,  $p = 0.79$ ,  $\eta_p^2 = .002$ .

These findings provide no evidence that explicit conspiracy belief levels modulate automatic semantic processing, regardless of whether primes are consciously perceivable or not. The consistently small effect sizes support the interpretation that the investigated factors have no practically meaningful influence on semantic processing.

**Table 4**

*Masking Condition with Group-Split*

| Effect                                  | <i>df</i> | <i>F</i> | <i>p</i> | $\eta_p^2$ |
|-----------------------------------------|-----------|----------|----------|------------|
| Belief Group                            | 1, 39     | 0.11     | 0.74     | .003       |
| Masking Condition                       | 1, 39     | 2.70     | 0.11     | .065       |
| Belief Group $\times$ Masking-Condition | 1, 39     | 0.07     | 0.79     | .002       |

## Discussion

### Summary of Findings

The present study aimed to investigate the relationship between individuals' belief in conspiracy theories and their cognitive processing of semantic information in a (masked) priming task. Specifically, we tested, if individuals, really belief in conspiracy theories or endorse with conspiracy theories to satisfy other psychological needs. We also examined whether belief in conspiracy theories, as measured by the Generic Conspiracist Beliefs (GCB) scale, predicts the strength of the congruency effect in reaction times (RTs) under masked and unmasked conditions.

Two hypotheses were tested:

1. According to the belief-based hypothesis, participants who genuinely believe in conspiracy theories should show congruency effects (faster reaction times and higher accuracy) in both masked and unmasked conditions.
2. According to the representation-based hypothesis, conspiracy beliefs should not be associated with congruency effects under the masked condition, where strategic processing is not possible.

To test the first hypothesis, a 2 (congruency: congruent vs. incongruent)  $\times$  2 (masking: masked vs. unmasked) repeated-measures ANOVA was conducted. The analysis revealed a significant main effect of masking,  $F(1, 41) = 155.12, p < 0.001, \eta^2_p = .80$  indicating that reaction times differed between masked and unmasked conditions. No significant main effect of congruency,  $F(1, 41) = 1.72, p = 0.20, \eta^2_p = .04$ , and no significant interaction between congruency and masking,  $F(1, 41) = 2.74, p = 0.11, \eta^2_p = .06$  were found. The analysis of the relationship between explicit conspiracist beliefs and semantic priming effects revealed no

significant correlation between GCB scores and priming effects,  $r(39) = -.17, p = 0.29, 95\% CI [-.45, .15]$ .

To test the second hypothesis, a multiple linear regression analysis was conducted with standardized GCB scores, masking condition, and their interaction as predictors, and the congruency effect as the outcome variable. The regression model revealed no significant main effect of GCB score,  $b = 1.07, SE = 7.699, t = 0.14, p = 0.89$ , and no significant interaction between GCB score and masking,  $b = 9.45, SE = 19.02, t = 0.497, p = 0.62$ .

Overall, the results indicate that masking influenced overall reaction times, but no significant congruency effects or interactions with explicit conspiracy beliefs were observed.

### **Interpretation and Contextualization of Findings**

The significant main effect of masking confirmed that participants processed subliminal and supraliminal stimuli differently, consistent with prior findings that unconscious processing tends to produce faster but less elaborated responses (Draine & Greenwald, 1996; Dehaene & Naccache, 2001). However, the absence of a significant main effect of congruency and the lack of a masking  $\times$  congruency interaction indicate that conspiracy-related primes did not automatically activate self-related semantic associations. This challenges the belief-based hypothesis, which posits that internalized conspiracy beliefs should facilitate automatic congruency effects across both masked and unmasked conditions (Brotherton et al., 2013).

Furthermore, no significant relationship was found between explicit conspiracy beliefs, as measured by the Generic Conspiracist Beliefs Scale (GCB), and the magnitude of the priming effects. This finding suggests that even individuals who explicitly endorse conspiracy theories do not necessarily exhibit stronger unconscious semantic alignment with conspiracy-related

concepts. According to models of belief perseverance (Anderson et al., 1980) and motivated reasoning (Kunda, 1990), deeply held beliefs typically influence automatic processing. The absence of such an effect here implies that conspiracist beliefs may not function as deeply internalized cognitive structures.

Instead, the findings align more closely with the representation-based account, which conceptualizes conspiracy narratives as strategic tools for social signaling and rhetorical positioning rather than as internalized epistemic convictions (Sapountzis & Condor, 2013; Madisson & Ventsel, 2020). In this view, individuals may endorse or share conspiracy narratives without necessarily believing in them at a deep cognitive level, but rather to achieve communicative or identity-related goals. The present study provides empirical support for this theoretical perspective by demonstrating a lack of implicit semantic activation, even among high-scoring individuals.

This interpretation is consistent with the broader literature suggesting that conspiracy theories are often deployed to manage social identity, express dissent, or resist dominant narratives (Nissen, 2015; Kasekamp et al., 2019; Bergmann, 2025). According to Speech Act Theory (Searle, 1979), such communication acts do not necessarily imply epistemic commitment but can serve strategic, performative purposes. The current findings suggest that conspiracy endorsement may reflect such performative functions rather than deeply internalized beliefs.

Nevertheless, these conclusions must be drawn cautiously. Methodological factors such as the semantic distance between primes and targets, the general nature of the GCB measure (Brotherton et al., 2013), and the absence of a direct prime visibility check may have limited the sensitivity of the priming task. Future research could employ more domain-specific measures of

conspiracist ideation and include explicit awareness checks to strengthen the validity of unconscious processing assessments.

Overall, the results indicate that conspiracy theory beliefs, at least in the context of the present masked priming paradigm, may function more as context-dependent rhetorical resources than as automatic cognitive schemas.

### **Limitations and Further Research**

Several limitations of the present study should be considered when interpreting the results. First, although the sample size was adequate to detect medium to large effects, it may have lacked the statistical power to detect small effects or subtle patterns of interaction. Given the complexity of semantic priming and the potential for individual differences in implicit processing, a larger sample may have revealed more nuanced relationships between conspiracy belief and reaction time measures.

Second, although the Generic Conspiracist Beliefs Scale (GCB; Brotherton et al., 2013) is a widely used and psychometrically validated instrument, it does not distinguish between different thematic domains of conspiracy beliefs (e.g., political, scientific, paranormal). These types of beliefs may differ in their underlying motivational bases and degree of personal relevance, which in turn may differentially influence implicit cognitive processing.

Future research should consider more domain-specific measures of belief to better capture this heterogeneity.

Third, the present study used a single masked priming task that focused on reaction time and accuracy. While this paradigm is useful for detecting automatic semantic associations, it may not capture the full range of neural or affective responses associated with conspiracy-related

cognition. The inclusion of complementary methods, such as electroencephalography (EEG), eye tracking or pupillometry, could provide a more comprehensive picture of the cognitive and emotional processing involved.

Furthermore, the nature of the primes and targets used in the task - although based on established literature - may not fully reflect the complexity or variability of conspiracy content as experienced in real-life contexts. Different stimuli (e.g., short narratives, audiovisual content) may show different patterns of results and should be explored in future designs.

One methodological limitation of the present study is the absence of an explicit visibility check to assess the effectiveness of the masking procedure. Although we used established timing standards for masked priming research (e.g., prime duration of 35 ms followed by immediate masking; Forster & Davis, 1984; Dehaene & Naccache, 2001), it remains possible that a subset of participants may have partially perceived the primes. Future studies should consider including an objective awareness check (e.g., prime discrimination task) to verify the success of subliminal presentation on an individual basis.

## References

Anderson, C. A., Lepper, M. R., & Ross, L. (1980). *Perseverance of social theories: The role of explanation in the persistence of discredited information*. *Journal of Personality and Social Psychology*, 39(6), 1037–1049. <https://doi.org/10.1037/h0077720>

Ansorge, U., Kunde, W., & Kiefer, M. (2014). *Unconscious vision and executive control: How unconscious processing and conscious action control interact*. *Consciousness and Cognition*, 27, 268–287. <https://doi.org/10.1016/j.concog.2014.05.009>

Bergmann, E. (2025). *The strategic exploitation of conspiracy theories by populist leaders*. *Genealogy*, 9(2), 41. <https://doi.org/10.3390/genealogy9020041>

Biddlestone, M., Green, R., Douglas, K. M., Azevedo, F., Sutton, R. M., & Cichocka, A. (2025). *Reasons to believe: A systematic review and meta-analytic synthesis of the motives associated with conspiracy beliefs*. *Psychological Bulletin*, 151(1), 48–87. <https://doi.org/10.1037/bul0000463>

Bowes, S. M., Costello, T. H., & Tasimi, A. (2023). *The conspiratorial mind: A meta-analytic review of motivational and personological correlates*. *Psychological Bulletin*, 149(5–6), 259–289. <https://doi.org/10.1037/bul0000392>

Brotherton, R. (2016). *Suspicious minds: Why we believe conspiracy theories*. Bloomsbury Sigma. <https://doi.org/10.5040/9781472944528>

Brotherton, R., French, C. C., & Pickering, A. D. (2013). Measuring belief in conspiracy theories: The Generic Conspiracist Beliefs Scale. *Frontiers in Psychology*, 4, 279. <https://doi.org/10.3389/fpsyg.2013.00279>

Chabrol, H., Van Leeuwen, N., Rodgers, R., & Séjourné, N. (2009). *Contributions of psychopathic, narcissistic, Machiavellian, and sadistic personality traits to juvenile delinquency. Personality and Individual Differences, 47*(7), 734–739.

<https://doi.org/10.1016/j.paid.2009.06.020>

Cichocka, A., Marchlewska, M., Golec de Zavala, A., & Olechowski, M. (2016). 'They will not control us': Ingroup positivity and belief in intergroup conspiracies. *British Journal of Psychology, 107*(3), 556–576. <https://doi.org/10.1111/bjop.12158>

Cinelli, M., Etta, G., Avelle, M., Quattrociocchi, A., Di Marco, N., Valensise, C., Galeazzi, A., & Quattrociocchi, W. (2022). *Conspiracy theories and social media platforms. Current Opinion in Psychology, 47*, 101407. <https://doi.org/10.1016/j.copsy.2022.101407>

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Routledge. <https://doi.org/10.4324/9780203771587>

Dehaene, S., Naccache, L., Cohen, L., Le Bihan, D., Mangin, J. F., Poline, J. B., & Rivière, D. (2001). *Cerebral mechanisms of word masking and unconscious repetition priming. Nature Neuroscience, 4*(7), 752–758. <https://doi.org/10.1038/89551>

DiMaggio, A. R. (2022). *Conspiracy theories and the manufacture of dissent: QAnon, the 'Big Lie', Covid-19, and the rise of rightwing propaganda. Critical Sociology, 48*(6), 1025–1048. <https://doi.org/10.1177/08969205211073669>

Douglas, K. M. (2021). *COVID-19 conspiracy theories. Group Processes & Intergroup Relations, 24*(2), 270–275. <https://doi.org/10.1177/1368430220982068>

Douglas, K. M., Sutton, R. M., & Cichocka, A. (2017). *The psychology of conspiracy theories*. *Current Directions in Psychological Science*, 26(6), 538–542.

<https://doi.org/10.1177/0963721417718261>

Douglas, K. M., Sutton, R. M., Cichocka, A., Bilewicz, M., Roozenbeek, J., & van Prooijen, J.-W. (2019). *Understanding conspiracy theories*. *Political Psychology*, 40(S1), 3–35.

<https://doi.org/10.1111/pops.12568>

Draine, S. C., & Greenwald, A. G. (1998). Replicable unconscious semantic priming. *Journal of Experimental Psychology: General*, 127(3), 286–303. [https://doi.org/10.1037/0096-](https://doi.org/10.1037/0096-3445.127.3.286)

[3445.127.3.286](https://doi.org/10.1037/0096-3445.127.3.286)

Farkas, J., & Schou, J. (2018). *Fake news as a floating signifier: Hegemony, antagonism and the politics of falsehood*. *Javnost – The Public*, 25(3), 298–314.

<https://doi.org/10.1080/13183222.2018.1463047>

Fazio, R. H., & Olson, M. A. (2003). *Implicit measures in social cognition research: Their meaning and use*. *Annual Review of Psychology*, 54(1), 297–327.

<https://doi.org/10.1146/annurev.psych.54.101601.145225>

Forster, K. I., & Davis, C. (1984). Repetition priming and frequency attenuation in lexical access. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 10(4), 680–698.

<https://doi.org/10.1037/0278-7393.10.4.680>

Friedrich-Ebert-Stiftung. (2023, 26. April). *Inwiefern stimmen Sie den folgenden Aussagen zu Verschwörungstheorien zu?* [Graph]. In Statista. Zugriff am 17. Juli 2025, von

[https://de.statista.com/statistik/daten/studie/1399005/umfrage/glaube-an-](https://de.statista.com/statistik/daten/studie/1399005/umfrage/glaube-an-verschwoerungstheorien-in-deutschland/)

[verschwoerungstheorien-in-deutschland/](https://de.statista.com/statistik/daten/studie/1399005/umfrage/glaube-an-verschwoerungstheorien-in-deutschland/)

Giry, J., & Tika, P. (2020). *Conspiracy theories in political science and political theory*. In M. Butter & P. Knight (Eds.), *Routledge handbook of conspiracy theories* (pp. 108–120). Routledge. <https://hal.science/hal-02737242>

Gjoneska, B. (2021). *Conspiratorial beliefs and cognitive styles: The role of analytic thinking, critical thinking, and scientific reasoning*. *Frontiers in Psychology*, 12, Article 736838. <https://doi.org/10.3389/fpsyg.2021.736838>

Goertzel, T. (1994). *Belief in conspiracy theories*. *Political Psychology*, 15(4), 731–742. <https://doi.org/10.2307/3791630>

Herold, M.-T. (2020). *The truth behind the scenes: Conspiracy theories, epistemic disorientation and the need for orientation*. *Media and Communication*, 8(2), 401–411. <https://doi.org/10.37016/mr-2020-165>

Imhoff, R., & Bruder, M. (2014). *Speaking (un-) truth to power: Conspiracy mentality as a generalised political attitude*. *European Journal of Personality*, 28(1), 25–43. <https://doi.org/10.1002/per.1930>

Imhoff, R., & Lamberty, P. K. (2017). *Too special to be duped: Need for uniqueness motivates conspiracy beliefs*. *European Journal of Social Psychology*, 47(6), 724–734. <https://doi.org/10.1002/ejsp.2265>

Issue One. (2021, February 9). *60% of President Donald Trump's post-election tweets sought to undermine legitimacy of presidential race*. Issue One. <https://issueone.org/articles/60-of-president-donald-trumps-post-election-tweets-sought-to-undermine-legitimacy-of-presidential-race/>

Jolley, D., & Douglas, K. M. (2014). The social consequences of conspiracism: Exposure to conspiracy theories decreases intentions to engage in politics and to reduce one's carbon footprint. *British Journal of Psychology*, 105(1), 35–56. <https://doi.org/10.1111/bjop.12018>

Kasekamp, A., Madisson, M. L., & Wierenga, L. (2019). *Discursive opportunities for the Estonian populist radical right in a digital society. Problems of Post-Communism*, 66(1), 47–58. <https://doi.org/10.1080/10758216.2018.1445973>

Kiefer, M. (2007). *Top-down modulation of unconscious 'automatic' processes: A gating framework. Advances in Cognitive Psychology*, 3(1–2), 289–306. <https://doi.org/10.2478/v10053-008-0031-2>

Kiefer, M., & Martens, U. (2010). *Attentional sensitization of unconscious cognition: Task sets modulate subsequent masked semantic priming. Journal of Experimental Psychology: General*, 139(3), 464–489. <https://doi.org/10.1037/a0019561>

Kuhn, S. A., Linde, D., Zander-Schellenberg, T., Röthlisberger, M., Müller, L., & Michel, C. (2021). *Coronavirus conspiracy beliefs in the German-speaking general population: Endorsement rates and links to reasoning biases and paranoia. Psychological Medicine*, Advance online publication, 1–15. <https://doi.org/10.1017/S0033291721001124>

Kunda, Z. (1990). *The case for motivated reasoning. Psychological Bulletin*, 108(3), 480–498. <https://doi.org/10.1037/0033-2909.108.3.480>

Lobato, E., Mendoza, J., Sims, V., & Chin, M. (2014). *Examining the relationship between conspiracy theories, paranormal beliefs, and pseudoscience acceptance among a university population. Applied Cognitive Psychology*, 28(5), 617–625. <https://doi.org/10.1002/acp.3042>

Lukács, G., & Ansorge, U. (2021). *The mechanism of filler items in the response time concealed information test*. *Psychological Research*, 85(7), 2808–2828.

<https://doi.org/10.1007/s00426-020-01432-y>

Macrae, C. N., & Martin, D. (2007). *A boy primed Sue: Feature-based processing and person construal*. *European Journal of Social Psychology*, 37(5), 793–805.

<https://doi.org/10.1002/ejsp.406>

Madisson, M.-L., & Ventsel, A. (2020). *Strategic conspiracy narratives: A semiotic approach*. Routledge. <https://doi.org/10.4324/9780429020384>

Market. (2020, 5. August). *Geht es Ihrer Meinung nach bei den Maßnahmen gegen die Corona-Krise um etwas ganz anderes als das, was Politik und Medien sagen, oder ist das ein unbegründeter Verdacht?* [Graph]. In Statista. Zugriff am 17. Juli 2025, von

<https://de.statista.com/statistik/daten/studie/1142456/umfrage/verschwoerungstheorie-um-die-corona-krise-in-oesterreich/>

Mathôt, S., Schreij, D., & Theeuwes, J. (2012). *OpenSesame: An open-source, graphical experiment builder for the social sciences*. *Behavior Research Methods*, 44(2), 314–324.

<https://doi.org/10.3758/s13428-011-0168-7>

Miller, B. L. (2020). *Science denial and COVID conspiracy theories: Potential neurological mechanisms and possible responses*. *JAMA*, 324(22), 2255–2256.

<https://doi.org/10.1001/jama.2020.21332>

Moniz, P., & Swann, W. B. (2025). *The power of Trump's Big Lie: Identity fusion, internalizing misinformation, and support for Trump*. *PS: Political Science & Politics*, 1–6.

<https://doi.org/10.1017/S1049096524001203>

Naccache, L., & Dehaene, S. (2001). *The priming method: Imaging unconscious repetition priming reveals an abstract representation of number in the parietal lobes*. *Cerebral Cortex*, 11(10), 966–974. <https://doi.org/10.1093/cercor/11.10.966>

Nickerson, R. S. (1998). *Confirmation bias: A ubiquitous phenomenon in many guises*. *Review of General Psychology*, 2(2), 175–220. <https://doi.org/10.1037/1089-2680.2.2.175>

Poon, K. T., Chen, Z., & Wong, W. Y. (2020). *Beliefs in conspiracy theories following ostracism*. *Personality and Social Psychology Bulletin*, 46(8), 1234–1246. <https://doi.org/10.1177/0146167219898944>

Radicalisation Awareness Network. (2021). *Conspiracy narratives: The radicalisation effects and how to counter them*. European Commission.

Sapountzis, A., & Condor, S. (2013). *Conspiracy accounts as intergroup theories: Challenging dominant understandings of social power and political legitimacy*. *Political Psychology*, 34(5), 731–752. <https://doi.org/10.1111/pops.12015>

Sauer, M. A., Truelove, S., Gerste, A. K., & Limaye, R. J. (2021). *A failure to communicate? How public messaging has strained the COVID-19 response in the United States*. *Health Security*, 19(1), 65–74. <https://doi.org/10.1089/hs.2020.0190>

Scholz, H. (2015). *Judenpogrome im 14. Jahrhundert: Der Schwarze Tod*. *Informationen zur politischen Bildung*, 337, 290–301. <https://www.bpb.de/shop/zeitschriften/ipb/17857/judenpogrome-im-14-jahrhundert/>

Searle, J. R. (1979). *Expression and meaning: Studies in the theory of speech acts*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511609213>

Sunstein, C. R., & Vermeule, A. (2009). *Conspiracy theories: Causes and cures*. *Journal of Political Philosophy*, 17(2), 202–227. <https://doi.org/10.1111/j.1467-9760.2008.00325.x>

Sutton, R. M., & Douglas, K. M. (2020). Conspiracy theories and the conspiracy mindset: Implications for political ideology. *Current Opinion in Behavioral Sciences*, 34, 118–122. <https://doi.org/10.1016/j.cobeha.2020.02.015>

Swami, V., Voracek, M., Stieger, S., Tran, U. S., & Furnham, A. (2014). *Analytic thinking reduces belief in conspiracy theories*. *Cognition*, 133(3), 572–585. <https://doi.org/10.1016/j.cognition.2014.08.006>

Tajfel, H., & Turner, J. C. (1986). *The social identity theory of intergroup behavior*. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (pp. 7–24). Nelson-Hall.

Trump, D. J. [@realDonaldTrump]. (2020, November 7). I WON THIS ELECTION, BY A LOT! [Tweet]. *X (formerly Twitter)*. <https://x.com/realDonaldTrump/status/1325099845045071873>

Uscinski, J. E., & Parent, J. M. (2014). *American conspiracy theories*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199351800.001.0001>

Van den Bussche, E., Van den Noortgate, W., & Reynvoet, B. (2009). Mechanisms of masked priming: A meta-analysis. *Psychological Bulletin*, 135(3), 452–477. <https://doi.org/10.1037/a0015329>

Van Der Tempel, J., & Alcock, J. E. (2015). *Relationships between conspiracy mentality, hyperactive agency detection, and schizotypy: Supernatural forces at work? Personality and Individual Differences*, 82, 136–141. <https://doi.org/10.1016/j.paid.2015.03.010>

van Mulukom, V., Pummerer, L. J., Alper, S., Bai, H., Čavojová, V., Farias, J., Kay, C. S., Lazarević, L. B., Lobato, E. J. C., Marinthe, G., Pavela Banai, I., Šrol, J., & Žeželj, I. (2022). *Antecedents and consequences of COVID-19 conspiracy beliefs: A systematic review. Social Science & Medicine*, 301, 114912. <https://doi.org/10.1016/j.socscimed.2022.114912>

Van Prooijen, J. W., & Douglas, K. M. (2017). Conspiracy theories as part of history: The role of societal crisis situations. *Memory Studies*, 10(3), 323–333. <https://doi.org/10.1177/1750698017701615>

Whitson, J. A., & Galinsky, A. D. (2008). *Lacking control increases illusory pattern perception. Science*, 322(5898), 115–117. <https://doi.org/10.1126/science.1159845>

Wood, C., & Finlay, W. M. L. (2008). *British National Party representations of Muslims in the month after the London bombings: Homogeneity, threat, and the conspiracy tradition. British Journal of Social Psychology*, 47(4), 707–726. <https://doi.org/10.1348/014466607X264103>

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### Abstract (german version)

Diese Masterarbeit untersuchte, ob Verschwörungstheorien als internalisierte beliefs oder als strategische Repräsentationen fungieren, indem implizite semantische Verarbeitung mit einem masked priming paradigm getestet wurde. 41 Teilnehmende bearbeiteten einen Fragebogen zur Erfassung des general conspiracy theory belief sowie eine priming task mit masked- und unmasked-Bedingungen. Die primes umfassten entweder conspiracy-related oder science-related Begriffe, gefolgt von self-referential oder other-referential targets. Eine  $2 \times 2$  repeated-measures ANOVA ergab einen signifikanten Haupteffekt von masking ( $F(1, 40) = 155.12, p < 0.001, \eta_p^2 = .80$ ), jedoch weder einen signifikanten Haupteffekt von congruency ( $F(1, 40) = 1.72, p = 0.20, \eta_p^2 = .04$ ) noch eine Interaktion ( $F(1, 40) = 2.74, p = 0.11, \eta_p^2 = .06$ ). Auch die Regressionsanalysen zeigten keinen signifikanten Zusammenhang zwischen GCB-Scores und congruency-Effekten, weder in den masked- ( $b = 1.07, p = 0.89$ ) noch in den unmasked-Bedingungen, und auch keine signifikante Interaktion ( $b = 9.45, p = 0.62$ ). Das Ausbleiben automatischer semantischer Aktivierung, selbst bei Personen mit hohen conspiracy belief-Score, deutet darauf hin, dass Verschwörungstheorien eher als kontextabhängige rhetorische Repräsentationen genutzt werden, anstatt tief internalisierte kognitive Schemata abzubilden. Diese Ergebnisse stützen ein representation-based-Ansatz und legen nahe, dass die Befürwortung von Verschwörungstheorien eher strategischen kommunikativen und identitätsbezogenen Funktionen dient, anstatt tatsächliche epistemische Überzeugungen widerzuspiegeln.