

## PERCEPTUAL RESPONSES TO GENDERED ANTI-FAT STEREOTYPES: THE ROLE OF INFORMATION SOURCES AND TEXT CONTENT IN EYE MOVEMENT PATTERNS

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### Abstract

This study explores how textual information containing anti-fat stereotypes affects visual attention toward images of fat individuals, using eye-tracking methodology. Thirty-two stimuli paired short stereotype-based texts with images of a fat man and woman. Each text varied along three independent variables: stereotype topic (e.g., laziness, health risk), target gender (men or women), and information source (scientific vs. public opinion). A total of 22 university students (16 women) participated, and gaze data was collected using a Gazepoint GP3 eye tracker. Two eye-tracking indicators were analysed: fixation count and total viewing time. Significant effects were found for stereotype content on fixation count,  $F(7, 896) = 3.09, p = .003$ , and viewing time,  $F(7, 896) = 3.67, p < .001$ . A significant three-way interaction between topic, gender, and information source on fixation count was also observed,  $F(7, 896) = 9.01, p < .001$ . Follow-up tests showed that laziness elicited higher fixation counts for male stimuli, while heart attack risk led to longer viewing times for female stimuli. An interaction between topic and information source,  $F(7, 896) = 2.12, p = .040$ , revealed that public opinion increased attention to social stereotypes (e.g., laziness), while scientific sources drew more attention to job and health-related stereotypes. These findings suggest that both textual framing and information source shape how individuals attend to images of fat individuals. While eye-tracking cannot directly measure implicit bias, these perceptual patterns may reflect socially embedded stereotypes. The study highlights the utility of eye-tracking in examining gendered attention to fat-related content and encourages further research using combined measures of bias.

**Key words:** eye movement, anti-fat stereotypes, gender, information source.

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## ПЕРЦЕПТУАЛНИ ОДГОВОРИ НА РОДНО ОБОЈЕНЕ СТЕРЕОТИПЕ О ГОЈАЗНОСТИ: УЛОГА ИЗВОРА ИНФОРМАЦИЈА И САДРЖАЈА ТЕКСТА У ОБРАСЦИМА ПОКРЕТА ОЧИЈУ

### Апстракт

Ова студија истражује како текстуалне информације које садрже стереотипе о гојазности утичу на визуелну пажњу усмерену ка сликама гојазних особа, користећи метод праћења покрета очију. Тридесет два стимулуса комбиновала су кратке текстове са стереотипним садржајем и слике гојазног мушкарца и жене. Сваки текст је варирао по три независне променљиве: садржај стереотипа (нпр. лењост, ризик од срчаног удара), пол на који се текст односи (мушкарци или жене) и извор информације (научни или јавно мњење). Узорак је чинило 22 студента (16 женског пола), а подаци о погледима прикупљани су помоћу уређаја *Gazepoint GP3*. Анализирана су два показатеља праћења погледа: број фиксација и укупно време гледања. Значајни ефекти уочени су за садржај текста у односу на број фиксација ( $F(7, 896) = 3.09, p = .003$ ) и време гледања ( $F(7, 896) = 3.67, p < .001$ ). Значајна трострука интеракција између теме, пола и извора информације ( $F(7, 896) = 9.01, p < .001$ ) показала је да је стереотип о лењости изазвао већи број фиксација када је био приписан мушкарцима, нарочито у услову јавног мњења. Такође, уочена је интеракција између теме и извора информације ( $F(7, 896) = 2.12, p = .040$ ), при чему је јавно мњење повећало пажњу ка друштвеним стереотипима (нпр. лењост), док су научни извори привлачили више пажње за теме као што су запошљавање и ризик од болести. Налази сугеришу да формулација текста и кредибилитет извора утичу на начин на који испитаници усмеравају пажњу ка гојазним особама. Иако праћење покрета очију не може директно да измери имплицитне предрасуде, уочени перцептивни обрасци могу одражавати дубоко укоренење социјалне стереотипе. Студија указује на корисност ове методе у испитивању родно обојене пажње ка садржајима који се тичу гојазности и подстиче будућа истраживања која комбинују различите мере пристрасности.

**Кључне речи:** покрети очију, стереотипи везани за гојазност, пол, извор информација.

### INTRODUCTION

Bias, as traditionally understood, spans a range from broad social frameworks to deeply ingrained personal beliefs. Historically, researchers have examined how societal structures, such as in-groups, influence individuals by embedding shared beliefs that shape perceptions of others, often distorting views of those deemed 'different' (Allport, 1954). This social dimension of bias has typically been explored through visible markers, such as observable behaviours or explicit self-reports, which make the bias readily detectable. Examples of these markers include verbal expressions or in-group/out-group dynamics, where individuals express preference or hostility toward specific groups based on perceived characteristics.

However, recent research has increasingly focused on an underlying, largely unconscious form of bias, known as implicit bias, which extends beyond overt behaviour and verbalised beliefs. Unlike explicit biases, which are conscious and can be verbally articulated, implicit biases operate automatically, affecting both cognitive processes and perceptual frameworks on a fundamental level. This type of bias is particularly challenging to address because it operates beneath the level of conscious awareness, influencing individuals in ways they may not recognise or control. Implicit biases subtly shape perceptions, judgments, and actions, contributing to discrimination that may not align with an individual's stated beliefs. In today's increasingly interconnected world, where groups historically subject to discrimination gain visibility and recognition, the importance of understanding implicit bias grows. For instance, as fat individuals become more common in public spaces, particularly with rising global obesity<sup>1</sup> rates, the potential for both weight-based discrimination and normalization has increased. The World Health Organization reported that, as of 2022, approximately 1 in 8 people globally live with obesity, suggesting that weight-based bias may affect a significant portion of the population daily (World Health Organization, n.d.a).

This study investigates how culturally embedded stereotypes about fatness—especially when modulated by gender and source of information—influence perceptual attention patterns, as reflected in eye movements. The study does not attempt to directly measure implicit bias or personal prejudice. Rather, it uses eye-tracking to capture early cognitive responses to socially meaningful content.

Specifically, we treat gaze behaviours—such as fixation count and total viewing time—as indirect indicators of attention allocation, salience, and potential incongruence between expectation and stimulus. For example, faster initial fixations may signal immediate attention to culturally familiar associations, while longer viewing times may reflect either deeper cognitive processing or evaluative uncertainty.

By combining textual manipulation of stereotypes with controlled visual stimuli, this study offers insight into how stereotype content, information credibility, and gendered framing shape visual engagement. The contribution lies not in identifying latent bias within participants, but in documenting how cultural narratives embedded in language and image interact with attentional systems, particularly when stereotype–gender congruence or incongruence is involved.

*Anti-fat Bias*

Bias, by its nature, involves treating individuals differently based on perceived attributes (Research guides: FYS 101, n.d.). This study focuses on anti-fat<sup>1</sup> bias, examining how perceptions and judgments about fat individuals manifest at an unconscious level. Research has consistently shown that people perceived as fat are ascribed more negative traits. For instance, Harris et al. (1982) found that Australian students rated fat individuals with more negative attributes, a pattern that has been confirmed across multiple contexts and remains consistent in more recent studies (Brochu & Morrison, 2007; Jovančević & Jović 2021). These negative evaluations extend even to simplified representations, such as silhouettes, suggesting that the bias is associated with general body shapes rather than specific individuals (Greenleaf et al., 2004).

Anti-fat bias is also a global phenomenon, transcending cultural boundaries. In a study spanning Iceland, the United States, Australia, and Canada, Puhl et al. (2015) found that the perception of fatness as a lack of willpower strongly predicted anti-fat bias. This belief system not only places blame on individuals but also justifies discrimination by framing fat as a choice, thus facilitating real-world prejudice and social exclusion. Beyond stereotype assignment, anti-fat bias has tangible consequences in various life domains, including healthcare, employment, and social interactions. In healthcare, for instance, anti-fat attitudes among medical practitioners have been shown to reduce the quality of care for fat patients, perpetuating disparities in treatment (Puhl & Heuer, 2010). Historical studies highlight that healthcare providers, including physicians and nurses, often perceive fat patients as lacking self-discipline, which in turn affects their approach to treatment and care quality (Monello & Mayer, 1963; Brown, 2006).

Job discrimination is another pervasive issue faced by fat individuals, especially women, who encounter greater hurdles in securing employment and advancing professionally. Studies have consistently shown that fat women are evaluated more critically than their male counterparts in professional contexts (Pingitore et al., 1997; O'Brien et al., 2013; Flint et al., 2016). Furthermore, fatness often impacts social perceptions of physical appearance, as fat individuals are typically rated as less physically appealing. This bias emerges early in life, with fat children experiencing more

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<sup>1</sup> The term obesity is commonly used in medical and health-related contexts. However, in this paper, we use the term fat to describe individuals classified as having obesity. This choice is made for clarity and conciseness, and with the intention of avoiding derogatory implications. We chose fat over phrases such as people with obesity because it does not imply discomfort with one's body or reinforce a separation between the individual and their body size – something that can unintentionally contribute to stigma. Moreover, the term obesity itself can medicalise fatness, framing fat individuals as inherently ill regardless of their overall health, thereby reinforcing stigmatization (Blackburn, 2011).

frequent social rejection, bullying, and difficulty forming peer relationships, leading to lifelong challenges in personal and social domains (Troop-Gordon & Ladd, 2005; Griffiths & Page, 2008).

Anti-fat bias frequently intersects with gender bias, with studies indicating that women experience more severe stigmatization related to fatness than men. For instance, research shows that women are more likely to report stigmatizing experiences based on body size, and in certain contexts, they face compounded social judgments due to gendered expectations surrounding appearance (Greenleaf et al., 2004; Sattler et al., 2018). A study conducted in Serbia also supports this, indicating that fat men are perceived more positively than fat women in similar contexts (Jovančević & Jović 2021).

To make matters worse, this bias seems to be involuntary and unconscious, as shown by a study examining event-related brain potential recordings and showing different brain responses of participants when viewing stimuli of fat people (Schupp & Renner, 2011). The implicitness of anti-fat bias is supported by studies using implicit association tests and reaction times to show that implicit anti-fat bias is higher in comparison to explicit bias (Roddy et al., 2010). Eye movement trends are also different when viewing fat target stimuli. Scott et al. (2023) demonstrate that early fixations favour stimuli showing fat individuals; however, total fixation time and fixation counts, along with frequency of returns, favour stimuli depicting either underweight or average-weight individuals, suggesting that after the initial identification of fat individuals is completed, subjects display a tendency to reduce their exposure to depictions of fat individuals.

In summary, this study explores how anti-fat bias operates at an implicit level, influenced by gender, through eye movement analysis. Eye-tracking allows for the observation of subtle, involuntary reactions to fatness-related stimuli, shedding light on the implicit mechanisms that underlie anti-fat and gender biases. This research seeks to provide insight into the cognitive processes driving these biases, offering an exploratory look into how biases might influence perception.

#### *Eye Tracking and Language Mediated Eye-movement*

The assumption that bias affects gaze patterns is supported by research in language-mediated eye movement, a subfield of eye-tracking studies (Altmann, 2013). Language-mediated eye movement refers to how spoken and written language triggers fixations on related objects (Cooper, 1974; Tanenhaus et al., 1995; Altmann, 2013). For example, hearing 'snake' increases the likelihood of fixating on an image of a snake, while hearing 'Africa' might increase fixations on images of snakes, zebras, or lions (Cooper, 1974; Altmann, 2013). This phenomenon shifts fixation bias toward specific screen regions without fundamentally altering gaze patterns, and understanding the timing and nature of these shifts is crucial (Altmann, 2013).

Language does not direct attention to external objects but rather to mental representations. In the ‘blank screen paradigm,’ eye movements are directed toward remembered object locations as their relevance increases through concurrent linguistic information (Altmann, 2013). For written language, reading sentences such as ‘The first pulley is above the other pulley’ triggers saccades toward the respective image segments, mirroring spoken language processing (Hegarty & Just, 1989; 1993).

This characteristic makes language-mediated eye movements valuable for studying pronominal reference during sentence processing. In ambiguous sentences like ‘Nick is bringing lunch to Stav... He is carrying an umbrella,’ gaze patterns on ‘He’ can infer the pronoun’s referent, shifting with a gender change (e.g., replacing ‘Stav’ with ‘Aline’) (Arnold et al., 2000; Runner et al., 2003; Sekerina et al., 2004; Arnold et al., 2007; Altmann, 2013). Studies show implicit biases, like stereotypes, can similarly influence gaze (Macrae et al., 1994).

For instance, Mele and Federici (2012) found that total and average fixation times on relevant AoIs (Area of Interest, the portion of a stimulus for which data is computed) correlate with IAT (Implicit Association Test) scores, a result supported by Mele et al. (2014). Biases, including racial (Hansen et al., 2015) and social discrimination (Çelik & Türker, 2022), alter gaze patterns. If implicit anti-fat bias associates negative traits with gender, then stereotypes toward fat individuals should manifest in gender-congruent gaze patterns (e.g., fixations on images of men when traits like laziness are mentioned).

### *Information Sources and Perception*

Information sources strongly influence perception. For instance, vaccination research shows that people informed by friends or family have different intentions than those informed via news websites, highlighting the role of information sources (Etingen et al., 2013). This was further supported during COVID-19, where individuals receiving information from diverse sources (e.g., politicians, friends) exhibited varying behaviours (Jovančević & Miličević 2020). Media also plays a significant role in bias formation and persistence (Vučković & Lučić 2023; De Coninck et al., 2024), including anti-fat bias (Heuer et al., 2011). Positive portrayals create positive stereotypes, while negative portrayals reinforce negative ones, with media often viewed as reliable (Tan et al., 2010).

People’s trust in sources aligns with their cognitive environment. For example, political views shape source reliability—conservatives in the U.S. might trust economic experts but not climate scientists (Hamilton, 2015; Rowland et al., 2022). This research explores which sources most strongly shape perceptions of fat individuals. While anti-fat bias permeates many life areas, understanding which sources amplify specific aspects of this bias remains a gap that this study seeks to address.

### *Current Study*

This study investigates how gender and stereotype content jointly influence visual attention toward fat individuals, using eye-tracking methodology. Prior research shows that anti-fat bias is often more severe toward women, who are disproportionately affected by weight-related stigma in healthcare, employment, and interpersonal settings (Sattler et al., 2018; Puhl & Brownell, 2013). However, few studies have explored how this bias interacts with the *type of stereotype* and the *credibility of the information source* to shape attentional responses.

Stereotypes about fatness vary widely in content and perceived origin. Some are medically or scientifically coded (e.g., ‘fat individuals are at higher risk of heart attack’), while others are socially coded and rooted in cultural judgments (e.g., ‘fat individuals are lazy or unattractive’) (Heuer et al., 2011; Kim & Willis, 2007). These differences in content framing may affect how viewers process the same visual targets depending on whether the accompanying message is attributed to a scientific or a public source. Prior research has shown that scientific framing enhances perceived legitimacy and activates analytical processing, while public framing may cue moral or emotional reactions (Kim & Willis, 2007).

Eye-tracking offers a method for examining such perceptual responses through involuntary gaze behaviours like fixation count and total viewing time. Although these measures cannot directly assess implicit bias, they provide insight into how socially coded information guides attention (Scott et al., 2023). Gendered stereotypes in particular may activate faster or more intensely when paired with gender-congruent stimuli—for example, women and physical appearance (Freeman & Ambady, 2011; Cao & Banaji, 2016).

This study is exploratory in design and examines whether stereotype topic, target gender, and source credibility interact to influence eye movements toward fat individuals portrayed in paired-image and stereotype-text combinations.

#### Research Goals and Hypotheses:

1. **Information Source Effect:** We hypothesise that scientific sources will increase attention (fixation count, viewing time) for scientifically framed topics (e.g., heart attack, depression), due to the greater perceived legitimacy and cognitive elaboration prompted by scientific attribution (Heuer et al., 2011; Kim & Willis, 2007). In contrast, public opinion sources will increase attention for socially rooted stereotypes (e.g., laziness, physical appearance), which may activate moral or emotional salience.
2. **Familiarity and Topic Salience:** Topics that are culturally familiar or frequently discussed in media (e.g., heart attack risk) will produce stronger gaze engagement (fixations, viewing time) compared to

less accessible or ambiguous topics like depression, consistent with cognitive accessibility theories (Scott et al., 2023)

3. Gender-Stereotype Interaction: When women targets are associated with socially coded stereotypes (e.g., physical appearance, sexual appeal), we expect increased fixation count and viewing time, as cultural gender norms assign greater value to physical appearance in women (Sattler et al., 2018; Puhl & Brownell, 2013).

## *METHODS*

### *The Sample*

The sample consists of 22 individuals (16 women), ages 19 through 25 ( $M = 20.77$ ,  $SD = 1.82$ ). All individuals were found to be without any vision-related impairment and thus the eye-tracker was set to track both eyes. The subjects were obtained via convenience sampling performed by the authors of this study and all were students of a university located in Serbia. Although consistent with sample sizes in exploratory eye-tracking studies, the sample of 22 participants (16 women) is modest, and the gender imbalance is noted. Given the between-subjects design, the number of participants per condition is small, which reduces statistical power and limits generalisability. This limitation is discussed in more detail below.

### *Material*

The study utilised 32 experimental stimuli, each consisting of a short text accompanied by two facial images: one of a fat man and one of a fat woman. The texts conveyed stereotypical beliefs about fat individuals and were presented in Serbian. Each text incorporated three manipulated variables:

- 1) Stereotype topic (8 levels): laziness, job performance, intelligence, untidiness, physical appearance, sexual appeal, depression, and heart attack risk.

- 2) Information source (2 levels): the stereotype was attributed either to a scientific source (e.g., 'Scientists claim that...') or to public opinion (e.g., 'The public believes that...')

- 3) Target gender (2 levels): the stereotype described either fat men or fat women (e.g., '80% of fat women...')

Each stimulus thus paired a stereotype topic with a source and a gender attribution. All texts were presented alongside facial images of both men and women, which were digitally altered using Photoshop to represent fatness while maintaining facial neutrality. Importantly, the image gender remained constant, but the target gender was manipulated in the text, not through image variation. The images consisted of facial photographs only, modified to depict overweight individuals. These were not pre-rated for perceived fatness, physical appearance, or emotional expression, which is acknowledged as a limitation in terms of stimulus standardization.



The experiment employed a between-subjects design with text/image pairs assigned to two blocks, A and B. Figure 1 illustrates an example stimulus. The structure of each text followed a fixed five-sentence template: Definition of fatness, global fatness statistics, fatness prevalence in Serbia, statement of the information source (scientific/public), attribution of a stereotype to either fat men or fat women.

Two eye-tracking metrics were used as dependent variables in the study, each capturing a different dimension of visual attention.

- 1) **Fixation Count:** the total number of fixations directed at the image area of interest (AoI), interpreted as an indicator of attentional allocation and general visual engagement.
- 2) **Total Viewing Time:** the cumulative duration of all fixations within an AoI, reflecting depth of cognitive processing and sustained interest.

These metrics were extracted for both facial images (men and women) presented alongside each text stimulus. Areas of interest were manually defined to ensure consistency across trials.

For stimulus creation, the initial set of 8 stereotype topics was attributed to male targets and scientific sources. By reassigning each stereotype to a different source (scientific or public) and changing the gender attribution (men or women), a total of 32 unique texts were produced. These were distributed equally across two blocks: Block A and Block B, to ensure counterbalancing and prevent repetition of stereotype-topic combinations within subjects. Each participant was randomly assigned to one block and saw all 32 stimuli in a randomised order.

To preserve experimental masking, filler items were included that mirrored the structure of experimental texts but lacked stereotype content. These were interspersed to reduce participant awareness of the manipulation and ensure careful reading of the texts. Figure 1 shows an example of a stimulus. In this example, the source is scientific, the stereotype is 'untidiness,' and the target gender is female.

### *Procedure*

The eye-tracking procedure used a Gazepoint GP3 HD eye tracker (150 Hz) connected to a Dell Vostro i7-1165G7/16GB/512GB SSD laptop. Calibration, recording, and data export were managed through Gazepoint's proprietary software. The eye tracker was positioned 30 cm below eye level and 65 cm away from each seated subject. Subjects entered the room individually, receiving verbal instructions on seating, calibration, and tasks.

Calibration involved a 9-point protocol. After successful calibration, subjects were instructed to focus on specific screen areas to validate accuracy. Once nine out of nine test saccades and fixations were correctly captured, the actual experiment began. Subjects completed a practice trial to familiarise themselves with the setup. In the main experiment, subjects ob-

served and read text/image combinations and answered content-related questions. They were informed that the combinations came from online news sources and controlled the viewing duration themselves.

Gojaznost je stanje koje se ispoljava kroz  
nagomilavanje masti u telu i povećanje telesne  
mase. Gojaznost je u porastu. Do 2030 u Srbiji  
očekujemo 28% gojaznih osoba. Naučnici tvrde da su  
gojazni ljudi često veoma neuredni. Npr. Gojazne  
žene su u 80% slučajeva više neuredne od ljudi  
normalne telesne težine dok kod muškaraca ova  
brojka iznosi 20%.



*Figure 1. “Fatness is a state that manifests as an accumulation of fat in the body and an increase in bodily mass. Fatness is on the rise. Current expectation is that by 2030, 28% of all Serbians will be fat. Scientists claim that fat individuals are often very untidy. To be more precise, fat women are more untidy in 80% of the cases compared to individuals of normal weight, while this number is around 20% for men.”*

If any questions were answered incorrectly, data for that stimulus would be excluded, though all subjects answered correctly. Upon completing the final stimulus, the recording session ended, and subjects exited. The experimenter visually checked the eye-tracking data to confirm tracking consistency.

After each stimulus, participants answered a brief multiple-choice question to ensure they had attended to the text. These questions were not analysed. The texts, while based on cultural stereotypes, were not factually accurate in the statistical claims they presented. All participants received a written debriefing at the end of the session explaining the purpose of the study, the fictional nature of the statistics, and the rationale for using stereotype-based content.

## RESULTS

### *Fixation Count*

The results revealed a significant main effect of text content on fixation counts,  $F(7, 896) = 3.09, p = .003$ . Descriptive means by topic are presented in Figure 2. Tukey HSD post hoc tests indicated that participants fixated significantly more on images when the text attributed Laziness to fat individuals, compared to multiple other topics—including Depression, Physical Appearance, Untidiness, Sexual Appeal, and Heart Attack Risk ( $p < .05$ ). These pairwise differences are detailed in Table 1. Although Sexual Appeal shows slightly higher mean fixation values than Laziness in the bar plot (Figure 1), these differences did not reach statistical significance.

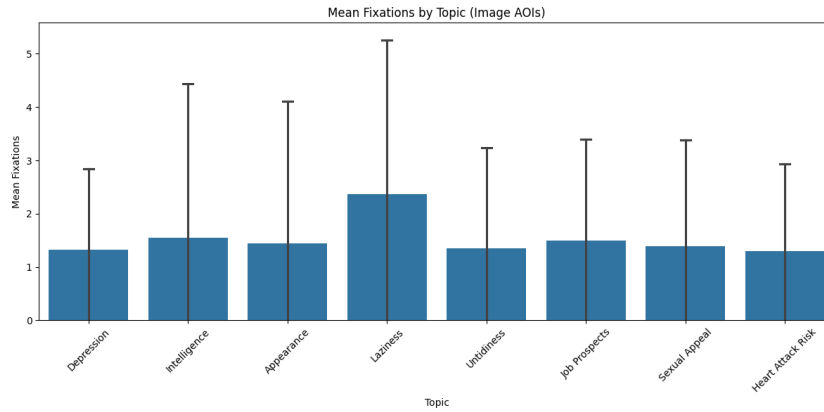


Figure 2. Mean Fixation Counts per Topic

Table 1. Tukey HSD post-hoc for Fixation Count

Topic 1	Topic 2	Mean Difference	p-value	Significant (p < .05)
Intelligence	Depression	-0.22	.995	No
Appearance	Depression	-0.11	1	No
Appearance	Intelligence	0.11	1	No
<b>Laziness</b>	<b>Depression</b>	<b>1.04</b>	<b>.009</b>	<b>Yes</b>
Laziness	Intelligence	0.82	.098	No
<b>Laziness</b>	<b>Appearance</b>	<b>0.93</b>	<b>.033</b>	<b>Yes</b>
Untidiness	Depression	0.03	1	No
Untidiness	Intelligence	-0.20	1	No
Untidiness	Appearance	-0.09	1	No
<b>Untidiness</b>	<b>Laziness</b>	<b>-1.02</b>	<b>.013</b>	<b>Yes</b>
Job	Depression	0.16	1	No
Job	Intelligence	-0.06	1	No
Job	Appearance	0.05	1	No
Job	Laziness	-0.88	.056	No
Job	Untidiness	0.14	1	No
Sexual Appeal	Depression	0.07	1	No
Sexual Appeal	Intelligence	-0.16	1	No
Sexual Appeal	Appearance	-0.04	1	No
<b>Sexual Appeal</b>	<b>Laziness</b>	<b>-0.97</b>	<b>.021</b>	<b>Yes</b>
Sexual Appeal	Untidiness	0.04	1	No
Sexual Appeal	Job	0.09	1	No
Heart Attack Risk	Depression	-0.03	1	No
Heart Attack Risk	Intelligence	-0.26	.988	No
Heart Attack Risk	Appearance	-0.15	1	No
<b>Heart Attack Risk</b>	<b>Laziness</b>	<b>-1.08</b>	<b>.006</b>	<b>Yes</b>
Heart Attack Risk	Untidiness	-0.06	1	No
Heart Attack Risk	Job	-0.20	.998	No
Heart Attack Risk	Sexual Appeal	-0.10	1	No

A significant three-way interaction was also observed between text content, gender of the stimulus, and information source,  $F(7, 896) = 9.01$ ,  $p < .001$ . Follow-up analysis showed that Laziness attracted higher fixation counts when attributed to male stimuli, especially when the information was from public sources. These values are illustrated in Figure 3.

Additionally, there was a trending but non-significant interaction between text content and information source alone ( $F(7, 896) = 1.93$ ,  $p = .062$ ). Nonetheless, targeted comparisons revealed that job-related stereotypes prompted more fixations when attributed to scientific sources ( $p < .001$ ), whereas laziness-related content attracted more fixations when linked to public sources ( $p = .043$ ). These results are visualised in Figure 4.

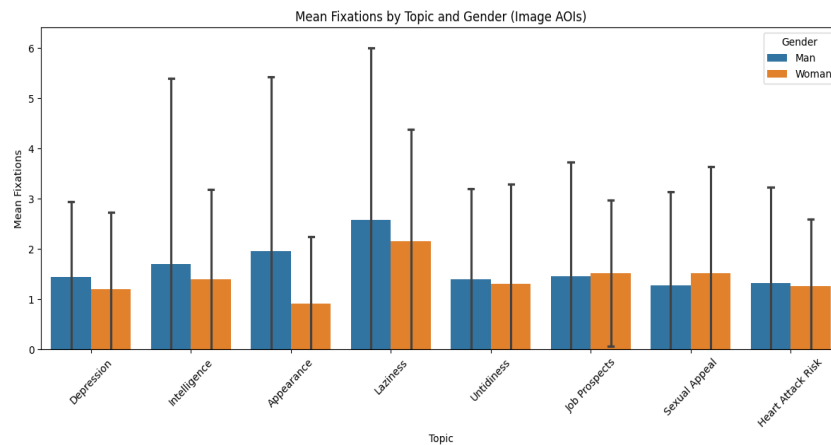


Figure 3. Mean Fixation Counts by Topic and Gender

#### Time Viewed

Results indicated a significant main effect of text content on total time spent viewing the stimuli,  $F(7, 896) = 3.67$ ,  $p < .001$ . Mean values by topic are presented in Figure 5. Tukey HSD post hoc comparisons revealed that Laziness elicited significantly longer viewing times than several other topics—including Depression, Intelligence, Physical Appearance, Untidiness, Sexual Appeal, and Heart Attack Risk ( $p < .05$ ). These pairwise results are detailed in Table 2. While Heart Attack Risk exhibited relatively high mean viewing times, the differences were not statistically significant in the post hoc tests.

A significant interaction was also found between text content and gender of the stimuli,  $F(7, 896) = 3.47$ ,  $p = .001$ . Participants spent more time viewing male stimuli when the topic was Laziness, and female stimuli when the topic was Heart Attack Risk. However, only the Laziness comparison reached statistical significance ( $p < .05$ ). See Figure 6 for details.

Additionally, a significant interaction was observed between text content and information source,  $F(7, 896) = 2.12, p = .040$ . Specifically, scientific sources led to longer viewing times for Heart Attack Risk, while public sources resulted in longer viewing durations for Laziness-related content ( $p = .043$ ). These effects are visualised in Figure 7.

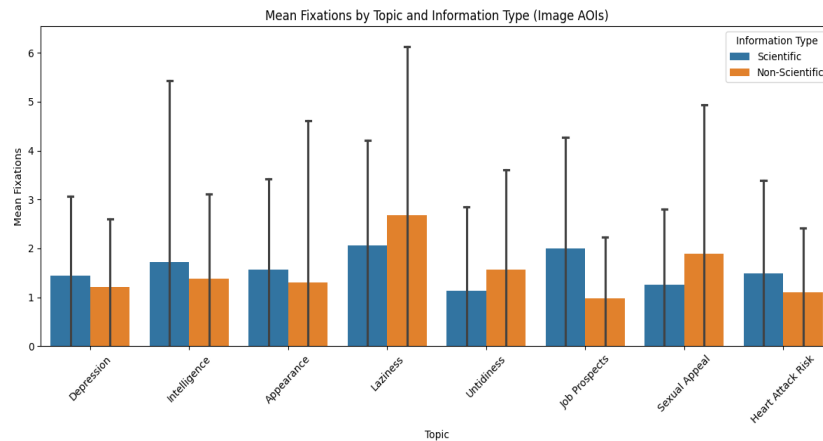


Figure 4. Mean Fixations by Topic and Information Source

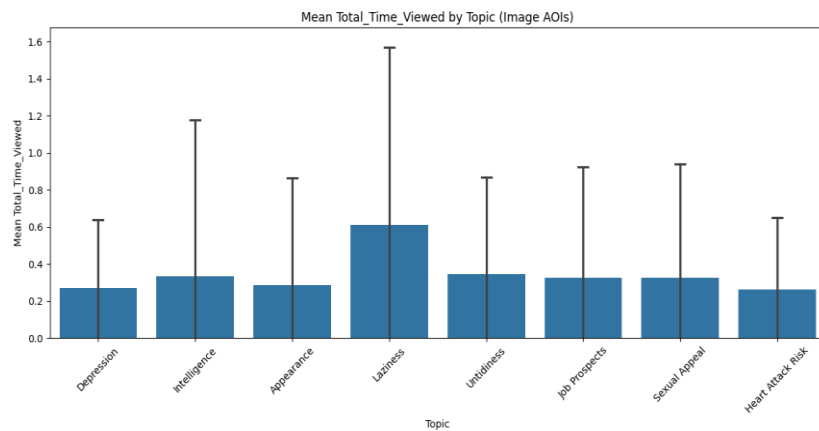


Figure 5. Mean Viewing Time  
(Sum of all fixation durations falling in a single AoI) by Topic

Table 2. Tukey HSD post-hoc for total viewing time

Topic 1	Topic 2	Mean Difference	p-value	Significant (p < .05)
Intelligence	Depression	−0.07	.994	No
Appearance	Depression	−0.02	1.	No
<b>Laziness</b>	<b>Depression</b>	<b>0.34</b>	<b>.001</b>	<b>Yes</b>
Untidiness	Depression	0.08	.986	No
Job	Depression	0.06	.998	No
Sexual Appeal	Depression	0.06	.997	No
Heart Attack Risk	Depression	−0.01	1.	No
Appearance	Intelligence	0.05	.999	No
<b>Laziness</b>	<b>Intelligence</b>	<b>0.28</b>	<b>.021</b>	<b>Yes</b>
Untidiness	Intelligence	0.01	1.	No
Job	Intelligence	−0.01	1.	No
Sexual Appeal	Intelligence	−0.01	1.	No
Heart Attack Risk	Intelligence	−0.07	.990	No
<b>Laziness</b>	<b>Appearance</b>	<b>0.33</b>	<b>.003</b>	<b>Yes</b>
Untidiness	Appearance	0.06	.997	No
Job	Appearance	0.04	1.	No
Sexual Appeal	Appearance	0.04	1.	No
Heart Attack Risk	Appearance	−0.02	1.000	No
<b>Laziness</b>	<b>Untidiness</b>	<b>0.27</b>	<b>.031</b>	<b>Yes</b>
<b>Laziness</b>	<b>Job</b>	<b>0.29</b>	<b>.014</b>	<b>Yes</b>
<b>Laziness</b>	<b>Sexual Appeal</b>	<b>0.28</b>	<b>.017</b>	<b>Yes</b>
<b>Laziness</b>	<b>Heart Attack Risk</b>	<b>0.35</b>	<b>.001</b>	<b>Yes</b>
Job	Untidiness	−0.02	1.	No
Sexual Appeal	Untidiness	−0.02	1.	No
Heart Attack Risk	Untidiness	−0.08	.977	No
Sexual Appeal	Job	0.000	1.	No
Heart Attack Risk	Job	−0.06	.996	No
Heart Attack Risk	Sexual Appeal	−0.07	.994	No

## DISCUSSION

This study aimed to examine the intricate dynamics between stereotypical beliefs, their gendered components, and the potential visual or gestalt elements embedded in these perceptions. By analysing eye movement data, we aimed to uncover the implicit cognitive biases that influence how individuals engage with visual representations of fatness. Our findings contribute to understanding the mechanisms underlying anti-fat bias and demonstrate the significant role that gender, stereotype content, and information source play in shaping visual attention.

### *Information Sources as a Starting Point*

Our first hypothesis proposed that the credibility of the information source would shape visual attention by influencing how stereotypes are

cognitively processed. Specifically, we expected that scientific sources, due to their perceived objectivity and authority, would amplify attention to traits framed as performance-based or evidence-driven (e.g., intelligence, job performance), whereas public opinion would increase engagement with socially coded attributes (e.g., laziness, appearance).

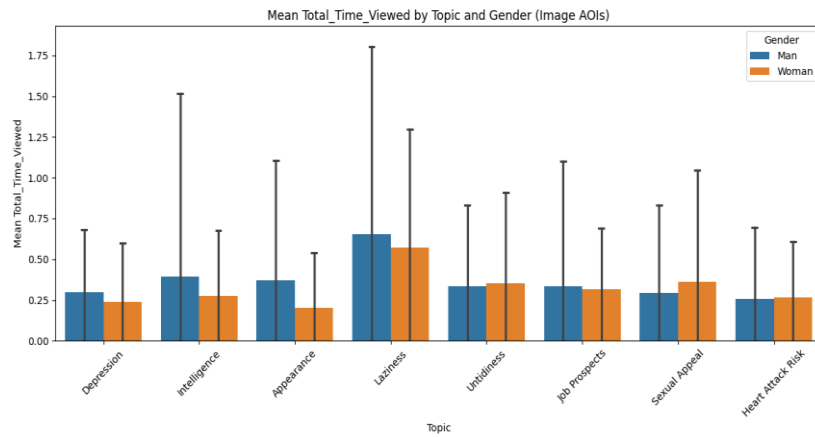


Figure 6. Mean Viewing Time by Topic and Gender

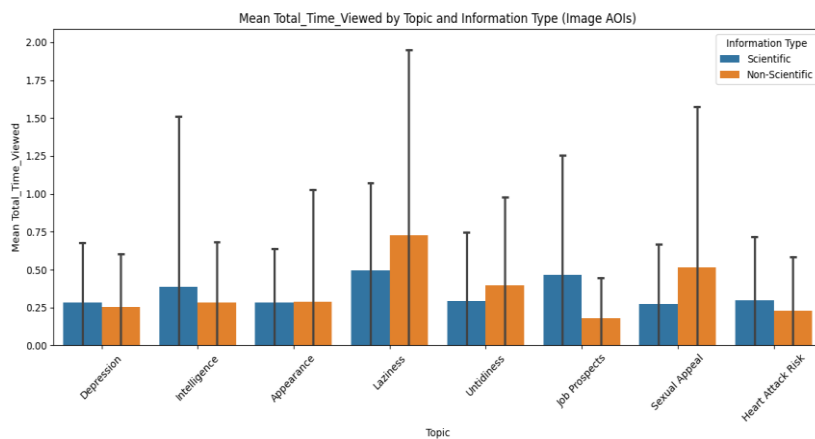


Figure 7. Mean Viewing Time by Topic and Information Source

This prediction aligns with prior findings that source credibility moderates how information is evaluated and accepted (Prike et al., 2024; Wertgen & Richter, 2020) and that media narratives can reinforce or challenge public beliefs about fatness (Saguy et al., 2016; Frederick et al., 2016a, 2016b; Kite et al., 2022).

Our results offer clear support for this distinction. Participants demonstrated significantly higher fixation counts when job-related stereotypes were attributed to scientific sources ( $p < .001$ ), suggesting that authoritative framing enhances perceived seriousness. In contrast, laziness-related content, when attributed to public opinion, prompted both increased fixations and significantly longer viewing times ( $p = .043$ ), indicating deeper engagement. Conversely, laziness-related content, when attributed to public opinion, prompted both increased fixations and longer viewing durations, indicating sustained engagement. Rather than signalling passive internalization, these effects likely reflect a greater cognitive resonance with stereotypes perceived as culturally familiar or widely endorsed. In this way, public framing may facilitate more fluent processing of social biases, reinforcing their salience during visual perception.

#### *Text Content and Eye Movements*

Our second hypothesis proposed that the familiarity and cultural accessibility of stereotype content would shape visual attention, with more commonly encountered or socially resonant stereotypes prompting increased engagement. The results strongly support this prediction: the laziness stereotype elicited the highest fixation counts and longest viewing times, significantly surpassing several topics—including Depression, Appearance, Sexual Appeal, and Heart Attack Risk ( $p < .05$ ). Although its advantage over traits like Job or Intelligence was not always statistically significant, the pattern suggests that socially salient stereotypes may prompt deeper engagement. This suggests that stereotypes with high social salience, rather than objective severity, may be more cognitively engaging.

One possible interpretation is that laziness, as a widely circulated and culturally accepted stereotype, presents a low-threat, high-familiarity target that invites exploration rather than avoidance. In contrast, health-related stereotypes such as heart disease may evoke discomfort, especially when perceived as personally relevant or threatening. Prior research indicates that individuals tend to divert attention away from emotionally distressing or self-implicating content, instead focusing on less threatening, benign stereotypes (Britton & Anderson, 2021). Within this framework, the increased visual attention to laziness may reflect a comfort zone effect, whereby participants are more willing to engage with content that reinforces socially shared biases without triggering personal discomfort or self-evaluation.

#### *Gender as a Moderating Factor*

Our third hypothesis proposed that stereotypes would elicit greater visual engagement when aligned with culturally dominant gender associations. This expectation was grounded in prior evidence that anti-fat atti-



tudes tend to be more pronounced toward women (Brochu & Morrison, 2007; Jovančević & Jović 2021) and that stereotype-congruent stimuli can accelerate attentional and cognitive processing (Guerra et al., 2021).

The findings offer partial but meaningful support for this hypothesis. For the laziness stereotype, participants exhibited significantly higher fixation counts and longer viewing durations when the trait was linked to male stimuli. This pattern suggests that laziness is culturally coded as a male stereotype, and the alignment between stereotype and stimulus gender amplified attentional engagement.

Interestingly, the heart attack stereotype produced a gendered effect in viewing time, but in the opposite direction: female stimuli drew longer attention in this context. This likely reflects stereotype incongruence—in Serbia, cardiovascular disease is more commonly associated with men (Vasić et al., 2022), so the presence of this stereotype alongside female stimuli may have elicited surprise-based engagement. Rather than reinforcing an existing bias, this suggests that novel or unexpected pairings can also capture attention by violating stereotypical expectations.

### *Eye Movement Trends*

Distinct eye movement patterns emerged concerning stereotype content, gender, and information source. Participants consistently associated laziness with fat male targets, as reflected in significantly higher fixation counts when the content attributed laziness to obese individuals. This suggests a fast, automatic attentional pull, consistent with the idea that social categorization processes rely on visually salient cues such as body size and gender (Fiske & Neuberg, 1990). In this context, laziness may serve as a culturally central stereotype for fat men—akin to dimensions like warmth and competence in early impression formation (Luna Cortes, 2024).

For female targets, descriptive trends suggested that sexual appeal and heart attack risk initially captured attention, particularly when paired with female faces. The consistent early engagement with appearance/sexuality-related content reflects its cultural salience for women, especially in Western societies where appearance is often central to female identity (Kaiser & Nyga, 2020). Health-related stereotypes such as heart attack risk also drew longer viewing times for women, although only the laziness-related comparisons reached significance.

Information source also influenced visual attention. Participants fixated significantly more on laziness-related content when it was attributed to public opinion, potentially reflecting its role as a culturally shared social stereotype (Cialdini & Goldstein, 2004). In contrast, job-related stereotypes attracted more fixations when paired with scientific sources ( $p < .001$ ), suggesting that authoritative framing enhances the credibility and salience of performance-based traits. These findings support the idea that peer norms may guide attention toward socially relevant content, while sci-

entific authority increases engagement with evaluative, competence-related traits (Wertgen & Richter, 2020).

Taken together, these results show that eye movements reveal subtle but meaningful differences in how stereotype content, gender, and framing shape attention. Future research should investigate how information source and stereotype type interact to moderate attentional biases across gendered representations of fatness.

### *Limitations and Future Directions*

While this study offers valuable insights into the dynamics of anti-fat bias and the moderating role of gender, several limitations should be noted, as they inform potential improvements for future research.

First, one primary limitation is the use of a single body size representation in the fatness stimuli. This study did not include varying body sizes, which may limit generalisability. Future research should incorporate a spectrum of body sizes to evaluate whether bias and eye movement patterns vary depending on gradations in perceived fatness. A dimensional approach, rather than a binary one, would allow for a more nuanced understanding of how subtle differences in body size influence visual attention and stereotype activation.

Additionally, the visual material consisted only of facial images of fat individuals. While faces convey socially relevant cues and allow for controlled manipulation, they do not capture full-body morphology, which may affect how fatness is perceived. Future research should consider using full-body images to assess whether gaze patterns change when more physical information is available.

Another limitation is the gender composition of the participant sample, which was predominantly made up of women. This imbalance could have influenced how gendered stereotypes were processed, especially in interactions involving gender congruency. Future studies should aim for gender-balanced samples to evaluate whether the observed effects generalise across participant demographics.

Particularly, given that the majority of our subjects were women, it could be argued that the pattern of results here observed is primarily aimed at the members of the opposite gender – i.e. rather than laziness being associated with fat men on a culturally-wide level, it is primarily women that associate laziness with fat men. Similarly, increased fixation counts on stereotypes concerning sexual appeal and, more interestingly, heart attack risk, might be a product of our participants' self-concern.

Furthermore, the study did not collect detailed participant characteristics such as body composition, age, socioeconomic status, or cultural orientation. These factors could play a crucial role in how individuals perceive and react to fat-related content. For instance, participants with higher BMI or lived experience of weight stigma may respond differently to certain

stereotypes. Future studies should include such variables, potentially using objective or retrospective body composition measures, to assess how personal experiences modulate gaze behaviour.

The binary categorization of information sources (scientific vs. public) also represents a limitation. In real-world contexts, trust in information sources likely exists on a continuum. Participants may perceive ‘public’ sources differently depending on perceived quality (e.g., tabloid vs. reputable health outlet). Future studies should operationalise source credibility as a continuous variable or manipulate source type with more granularity (e.g., ‘pop science’ vs. peer-reviewed journals).

Finally, the study was conducted in Serbia, and cultural norms surrounding fatness and gender may differ in other regions. The specific stereotypes triggered by fatness—and how they interact with gender—are shaped by sociocultural context. Cross-cultural replication is necessary to determine whether similar gaze patterns and bias activations emerge globally.

In sum, future research should address these limitations by varying body size representation, balancing participant demographics, incorporating full-body stimuli, refining the treatment of information source credibility, collecting participant background data, and extending investigation to other cultures. These improvements will enhance our understanding of anti-fat bias and support the development of effective interventions to reduce its impact.

## REFERENCES

- Allport, G. W. (1954). *The nature of prejudice*. Doubleday. Addison-Wesley.
- Altmann, G. T. M. (2011/2013). The mediation of eye movements by spoken language. *Oxford Handbooks Online*. <https://doi.org/10.1093/oxfordhb/9780199539789.013.0054> In *The Oxford Handbook of Eye Movements* (pp. 979–1005). essay, Oxford University Press.
- Arnold, J. E., Brown-Schmidt, S., & Trueswell, J. (2007). Children's use of gender and order-of-mention during pronoun comprehension. *Language and cognitive processes*, 22(4), 527–565.
- Arnold, J. E., Eisenband, J. G., Brown-Schmidt, S., & Trueswell, J. C. (2000). The rapid use of gender information: Evidence of the time course of pronoun resolution from eyetracking. *Cognition*, 76(1), B13–B26.
- Blackburn, G. L. (2011). Medicalizing obesity: individual, economic, and medical consequences. *AMA Journal of Ethics*, 13(12), 890–895.
- Britton, M. K., & Anderson, B. A. (2021). Attentional avoidance of threatening stimuli. *Psychological Research*, 85(1), 82–90.
- Brochu, P. M., & Morrison, M. A. (2007). Implicit and explicit prejudice toward overweight and average-weight men and women: Testing their correspondence and relation to behavioral intentions. *The Journal of Social Psychology*, 147(6), 681–706.
- Brown, I. (2006). Nurses' attitudes towards adult patients who are obese: literature review. *Journal of advanced nursing*, 53(2), 221–232.
- Cao, J., & Banaji, M. R. (2016). The base rate principle and the fairness principle in social judgment. *Proceedings of the National Academy of Sciences*, 113(27), 7475–7480.

- Çelik, S., & Türker, M. V. (2022). Can eye movements be a predictor of implicit attitudes? Discrimination against disadvantaged individuals during the recruitment process. *Istanbul Business Research*, 51(2), 459-489.
- Cialdini, R. B., & Goldstein, N. J. (2004). Social influence: Compliance and conformity. *Annu. Rev. Psychol.*, 55(1), 591-621.
- Cooper, R. M. (1974). The control of eye fixation by the meaning of spoken language: a new methodology for the real-time investigation of speech perception, memory, and language processing. *Cognitive psychology*.
- De Coninck, D., Van Assche, J., & Dhaenens, L. (2024). Right-wing authoritarianism and social dominance orientation as mediators between news media consumption and perceived migrant threat. *Mass Communication and Society*, 27(1), 26-49.
- Duchowski, A. T. (2017). *Eye tracking methodology: Theory and practice (3rd ed.)*. Springer.
- Etingen, B., LaVela, S. L., Miskevics, S., & Goldstein, B. (2013). Health information during the H1N1 influenza pandemic: Did the amount received influence infection prevention behaviors? *Journal of Community Health*, 38(3), 443-450. <https://doi.org/10.1007/s10900-012-9647-8>.
- Fiske, S. T., & Neuberg, S. L. (1990). A continuum of impression formation, from category-based to individuating processes: Influences of information and motivation on attention and interpretation. In *Advances in experimental social psychology* (Vol. 23, pp. 1-74). Academic Press.
- Flint, S. W., Čadek, M., Codreanu, S. C., Ivić, V., Zomer, C., & Gomoiu, A. (2016). Obesity discrimination in the recruitment process: "You're not Hired!". *Frontiers in psychology*, 7, 647. <https://doi.org/10.3389/fpsyg.2016.00647>
- Frederick, D. A., Saguy, A. C., & Gruys, K. (2016). Culture, health, and bigotry: How exposure to cultural accounts of fatness shape attitudes about health risk, health policies, and weight-based prejudice. *Social Science & Medicine*, 165, 271-279.
- Frederick, D. A., Saguy, A. C., Sandhu, G., & Mann, T. (2016). Effects of competing news media frames of weight on antifat stigma, beliefs about weight and support for obesity-related public policies. *International Journal of Obesity*, 40(3), 543-549.
- Freeman, J. B., & Ambady, N. (2011). A dynamic interactive theory of person construal. *Psychological review*, 118(2), 247.
- Greenleaf, C., Starks, M., Gomez, L., Chambliss, H., & Martin, S. (2004). Weight-related words associated with figure silhouettes. *Body image*, 1(4), 373-384.
- Griffiths, L. J., & Page, A. S. (2008). The impact of weight-related victimization on peer relationships: The female adolescent perspective. *Obesity*, 16(S2), S39-S45.
- Guerra, E., Bernotat, J., Carvacho, H., & Bohner, G. (2021). Ladies first: Gender stereotypes drive anticipatory eye-movements during incremental sentence interpretation. *Frontiers in Psychology*, 12, 589429.
- Hamilton, L. C. (2015). *Conservative and liberal views of science: Does trust depend on the topic?* Carsey Research, University of New Hampshire.
- Hansen, B. C., Rakhshan, P. J., Ho, A. K., & Pannasch, S. (2015). Looking at others through implicitly or explicitly prejudiced eyes. *Visual Cognition*, 23(5), 612-642.
- Harris, M. B., Harris, R. J., & Bochner, S. (1982). Fat, four-eyed, and female: Stereotypes of obesity, glasses, and gender 1. *Journal of Applied Social Psychology*, 12(6), 503-516.
- Hegarty, M., & Just, M. A. (1989). Understanding Machines from Text and Diagrams. In *Advances in Psychology* (Vol. 58, pp. 171-194). North-Holland.
- Hegarty, M., & Just, M. A. (1993). Constructing mental models of machines from text and diagrams. *Journal of memory and language*, 32(6), 717-742.

- Heuer, C. A., McClure, K. J., & Puhl, R. M. (2011). Obesity stigma in online news: a visual content analysis. *Journal of Health Communication*, 16(9), 976-987.
- Holmqvist, K., Nyström, M., Andersson, R., Dewhurst, R., Jarodzka, H., & Van de Weijer, J. (2011). *Eye tracking: A comprehensive guide to methods and measures*. Oxford University Press.
- Jovančević, A., & Jović, M. (2021). The relation between anti-fat stereotypes and anti-fat prejudices: The role of gender as a moderator. *Psychological Reports*, 125(3), 1687–1713. <https://doi.org/10.1177/00332941211005123>
- Jovančević, A., & Milićević, N. (2020). Optimism-pessimism, conspiracy theories and General Trust as factors contributing to COVID-19 related behavior – a cross-cultural study. *Personality and Individual Differences*, 167, 110216. <https://doi.org/10.1016/j.paid.2020.110216>
- Kaiser, D., & Nyga, K. (2020). Tracking cortical representations of facial attractiveness using time-resolved representational similarity analysis. *Scientific reports*, 10(1), 16852.
- Kim, S. H., & Anne Willis, L. (2007). Talking about obesity: News framing of who is responsible for causing and fixing the problem. *Journal of health communication*, 12(4), 359-376.
- Kite, J., Huang, B. H., Laird, Y., Grunseit, A., McGill, B., Williams, K., ... & Thomas, M. (2022). Influence and effects of weight stigmatisation in media: a systematic review. *EClinicalMedicine*, 48.
- Luna Cortes, G. (2024). A systematic literature review of the stereotype content model in the fields of psychology and marketing: main themes examined in the literature and an agenda for future research in marketing. *Frontiers in Psychology*, 15, 1392629.
- Macrae, C. N., Milne, A. B., & Bodenhausen, G. V. (1994). Stereotypes as energy-saving devices: A peek inside the cognitive toolbox. *Journal of personality and Social Psychology*, 66(1), 37.
- Mele, M. L., & Federici, S. (2012). Looking at What One Believes: Investigation of the Relationship between Eye Movements and Implicit Associations. *ARHEIA ETAIRES PSYHOLOGIKES PSYHIATRIKES ENĒLIKON KAI PAIDION*, 19, 1-1.
- Mele, M. L., Federici, S., & Dennis, J. L. (2014). Believing is seeing: fixation duration predicts implicit negative attitudes. *PloS One*, 9(8), e105106.
- Monello, L. F., & Mayer, J. (1963). Obese adolescent girls: An unrecognized “minority” group?. *The American Journal of Clinical Nutrition*, 13(1), 35-39.
- O'Brien, K. S., Latner, J. D., Ebner, D., & Hunter, J. A. (2013). Obesity discrimination: the role of physical appearance, personal ideology, and anti-fat prejudice. *International journal of obesity*, 37(3), 455-460.
- Pingitore, R., Spring, B., & Garfield, D. (1997). Gender differences in body satisfaction. *Obesity research*, 5(5), 402-409.
- Prike, T., Butler, L. H., & Ecker, U. K. (2024). Source-credibility information and social norms improve truth discernment and reduce engagement with misinformation online. *Scientific Reports*, 14(1), 6900.
- Puhl, R. M., & Heuer, C. A. (2010). Obesity stigma: important considerations for public health. *American journal of public health*, 100(6), 1019-1028.
- Puhl, R. M., Andreyeva, T., & Brownell, K. D. (2008). Perceptions of weight discrimination: Prevalence and comparison to race and gender discrimination in America. *International Journal of Obesity*, 32(6), 992–1000.
- Puhl, R. M., Latner, J. D., O'Brien, K., Luedicke, J., Danielsdotir, S., & Forhan, M. (2015). A multinational examination of weight bias: predictors of anti-fat attitudes across four countries. *International Journal of Obesity*, 39(7), 1166-1173.

- Puhl, R., & Brownell, K. D. (2013). Bias, discrimination and obesity. *Health and human rights in a changing world*, 581-606.
- Research guides: FYS 101: Stereotypes, prejudice, and discrimination. Syracuse University Libraries. (n.d.).
- Roddy, S., Stewart, I., & Barnes-Holmes, D. (2010). Anti-fat, pro-slim, or both? Using two reaction-time based measures to assess implicit attitudes to the slim and overweight. *Journal of Health Psychology*, 15(3), 416-425.
- Rowland, J., Esteves, J., Krzewska, A., & Warwas, I. (2022). Trust and mistrust in sources of scientific information on climate change and vaccines: Insights from Portugal and Poland. *Science & Education*.
- Runner, J. T., Sussman, R. S., & Tanenhaus, M. K. (2003). Assignment of reference to reflexives and pronouns in picture noun phrases: evidence from eye movements. *Cognition*, 89(1), B1-B13.
- Saguy, A. C., Sandhu, G., & Mann, T. (2016). Effects of competing news media frames of weight on antifat stigma, beliefs about weight and support for obesity-related public policies. *International Journal of Obesity*, 40(3), 543-549.
- Sattler, K. M., Deane, F. P., Tapsell, L., & Kelly, P. J. (2018). Gender differences in the relationship of weight-based stigmatisation with motivation to exercise and physical activity in overweight individuals. *Health psychology open*, 5(1), 2055102918759691.
- Schupp, H. T., & Renner, B. (2011). The implicit nature of the anti-fat bias. *Frontiers in Human Neuroscience*, 5, 23.
- Scott, G. G., Pinkosova, Z., Jardine, E., & Hand, C. J. (2023). "Thinstagram": Image content and observer body satisfaction influence the when and where of eye movements during instagram image viewing. *Computers in Human Behavior*, 138, 107464. <https://doi.org/10.1016/j.chb.2022.107464>
- Sekerina, I. A., Stromswold, K., & Hestvik, A. (2004). How do adults and children process referentially ambiguous pronouns?. *Journal of child language*, 31(1), 123-152.
- Tan, A., Dalisay, F., Zhang, Y., Han, E. J., & Merchant, M. M. (2010). A cognitive processing model of information source use and stereotyping: African-American stereotypes in South Korea. *Journal of Broadcasting & Electronic Media*, 54(4), 569-587.
- Tanenhaus, M. K., Spivey-Knowlton, M. J., Eberhard, K. M., & Sedivy, J. C. (1995). Integration of visual and linguistic information in spoken language comprehension. *Science*, 268(5217), 1632-1634.
- Troop-Gordon, W., & Ladd, G. W. (2005). Trajectories of peer victimization and perceptions of the self and schoolmates: Precursors to internalizing and externalizing problems. *Child development*, 76(5), 1072-1091.
- Vasić, A., Vasiljević, Z., Mickovski-Katalina, N., Mandić-Rajčević, S., & Soldatović, I. (2022). Temporal Trends in Acute Coronary Syndrome Mortality in Serbia in 2005-2019: An Age-Period-Cohort Analysis Using Data from the Serbian Acute Coronary Syndrome Registry (RAACS). *International journal of environmental research and public health*, 19(21), 14457. <https://doi.org/10.3390/ijerph192114457>
- Vučković, J., & Lučić, S. (2023). Hate speech and Social Media. *TEME*, 191-207. <https://doi.org/10.22190/teme221006012v>
- Wedel, M., & Pieters, R. (2008). *Eye tracking for visual marketing*. Now Publishers Inc.
- Wertgen, A. G., & Richter, T. (2020). Source credibility modulates the validation of implausible information. *Memory & Cognition*, 48, 1359-1375.
- World Health Organization. (n.d.-a). Obesity and overweight. World Health Organization. <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>

**ПЕРЦЕПТУАЛНИ ОДГОВОРИ НА РОДНО ОБОЈЕНЕ  
СТЕРЕОТИПЕ О ГОЈАЗНОСТИ:  
УЛОГА ИЗВОРА ИНФОРМАЦИЈА И САДРЖАЈА ТЕКСТА  
У ОБРАСЦИМА ПОКРЕТА ОЧИЈУ**

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**Резиме**

Ова студија истражује имплицитне предрасуде према гојазности кроз анализу покрета очију као показатеља несвесне когнитивне обраде. Први налаз односи се на улогу извора информација: научни извори подстичу већу пажњу када се стереотип односи на радну способност и компетентност (нпр. посао), док јавни извори изазивају појачано интересовање за друштвено кодиране стереотипе, попут лењости. Ови ефекти нису били присутни као главни ефекти, већ као значајне интеракције са садржајем текста.

Други налаз указује на значај фамилијарности садржаја у обликовању визуелне пажње. Стереотип лењости изазвао је највише фиксација и најдуже време гледања, што се тумачи као резултат његове културне присутности и релевантности, а не као ефекат новине или озбиљности.

Трећа хипотеза испитивала је родну конгруенцију — односно усклађеност између рода циљне особе и садржаја стереотипа. Испитаници су показали значајно већу пажњу према мушкарцима када је стереотип лењости био приписан мушком полу, док је код стереотипа о срчаном удару пажња била појачана када је особина приписана женама. Овај последњи налаз вероватно одражава перцепирану неусклађеност са културним очекивањима, јер се срчани удари чешће везују за мушкарце.

Истраживање има методолошка ограничења: коришћене су искључиво фотографије лица, узорак је био родно неуравнотежен (са доминацијом женских учесника), а индивидуалне карактеристике испитаника нису прикупљане.

У целини, резултати доприносе разумевању начина на који фамилијарност садржаја, тип извора и родна усклађеност утичу на визуелну пажњу и активацију стереотипа, показујући да имплицитне пристрасности делују у складу са културним матрицама и могу специфично усмеравати пажњу према одређеним циљним групама.