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OCTOBER 12, 2023

HOW DATING MYTHS AND SEXISM FUEL ONLINE RELATIONSHIP VIOLENCE

How Dating Myths and Sexism Fuel Online Relationship Violence - Neuroscience News

Summary: The rise of the internet and social media has ushered in a new form of dating violence termed cyber-violence. This form of abuse encompasses acts of control, humiliation, and threats in the online realm.

A recent study reveals that beliefs like romantic love myths, jealousy, and particularly sexism, play pivotal roles in propagating cyber-violence. Unpacking these beliefs is vital for promoting healthier online relationships.

Key Facts:

1. Cyber-violence, a digital form of dating abuse, includes acts like unauthorized photo sharing and cyberstalking.
2. Many young individuals often misconstrue control and aggression in relationships as markers of genuine love.
3. Romantic myths, jealousy, and notably sexism, have been identified as significant contributors to cyber-violence.

Source: Neuroscience News

With the pervasive rise of the internet and social media platforms, romantic relationships are increasingly finding their way into the digital realm. While this offers numerous benefits, it also presents a darker side: a surge in a specific form of dating violence termed cyber-violence.

Cyber-violence encompasses acts of control, humiliation, intimidation, and threats directed at a partner or ex-partner in the online realm. But what fuels this form of abuse?

A recent study aimed to unravel the ties between beliefs such as romantic love myths, jealousy, and sexism and the occurrence of cyber-violence.

Dating violence, traditionally understood as any form of aggression (physical, psychological, or sexual) towards a partner or ex-partner, has long been recognized as a concerning public health issue. Its repercussions, especially on younger individuals, range from severe psychological trauma to physical harm.

What's alarming is that this form of violence has evolved with the popularization of the internet. Acts like unauthorized sharing of intimate photos, cyberstalking, and online harassment fall under the broad umbrella of cyber-violence. These behaviors have grave implications for the mental and emotional well-being of the youth, and recognizing them is pivotal.

One might question why the youth, especially, are vulnerable. An alarming reality is that many young individuals often misconstrue acts of control and aggression as markers of genuine romantic love. For them, conflict, albeit toxic, may feel like an integral facet of a romantic relationship. Add to this the inherent jealousy that often surfaces in relationships, especially when perceived threats, real or imagined, emerge.

In the digital age, these threats might manifest as an innocuous comment on a partner's post or a photo liked by an unknown individual.

But where do these beliefs stem from? Cultural constructs and societal norms play an intricate role.

Romantic myths, for instance, perpetuate the idea that real love is possessive and exclusive. These beliefs suggest that an ideal romantic relationship is intense, all-consuming, and sometimes irrational. While these notions might sound passionate and profound, they foster an environment conducive to abuse.

The study found, however, that while romantic myths had a minimal protective role against victimization, jealousy and sexist beliefs played a more direct role in propagating cyber-violence.

Sexism, another significant player in this paradigm, refers to beliefs restricting and limiting gender expression, frequently leading to discrimination against women. Sexist beliefs perpetuate power dynamics and gender stereotypes in relationships, often leading to acts of violence.

In the realm of cyber-violence, these attitudes may express themselves as misogynistic trolling or online harassment directed primarily at women. For instance, men and even some women who hold more traditional, sexist views may be more likely to accept, or even perpetrate, acts of online aggression.

While ground-breaking in its exploration of the intertwined roles of jealousy, sexism, and romantic myths in cyber-violence, the study isn't without its limitations. Relying primarily on self-reported data poses the risk of social desirability bias. The overrepresentation of women in the study could also skew the findings.

In conclusion, understanding the drivers of cyber-violence is essential in this digital age. By dissecting the roles of jealousy, romantic myths, and sexism, we can better equip the youth with the tools to foster healthier relationships, both offline and online.

EARLY CONCUSSIONS TIED TO FASTER COGNITIVE DECLINE

Early Concussions Tied to Faster Cognitive Decline - Neuroscience News

Summary: A recent study reveals a link between early-life concussions and faster cognitive decline in later years.

Conducted on World War II veteran twins, the research showed that twins with a history of traumatic brain injury (TBI) scored lower on cognitive tests and exhibited quicker decline than their non-injured counterparts. Especially concerning was the pronounced decline in those who had TBI after age 24 or experienced loss of consciousness.

The study underscores the long-term risks of TBI and emphasizes the need for early interventions.

Key Facts:

1. Among the 8,662 WWII veteran participants, 25% had experienced a concussion at some point in their lives.
2. Twins with TBI history, especially those injured post-24 or with loss of consciousness, demonstrated pronounced cognitive decline.
3. Despite the modest effect sizes, the cumulative impact of TBI and other detrimental factors might be significant enough to necessitate cognitive evaluations.

Source: AAN

A study of twins shows that having a concussion early in life is tied to having lower scores on tests of thinking and memory skills decades later as well as having more rapid decline in those scores than twins who did not have a concussion, or traumatic brain injury (TBI).

SEQUENTIAL MEMORY IS A UNIQUE HUMAN TRAIT

https://neurosciencenews.com/sequential-memory-human-trait-23888/

Summary: New research unveils a probable unique human ability to recognize and remember sequential information. Despite being our closest relatives, bonobos struggle to learn the order of stimuli in the same manner as humans.

This discovery contributes to understanding the cognitive distinctions between humans and other animals, explaining why only humans possess certain cultural abilities like language and advanced planning. This sequential memory might be the foundational block behind many uniquely human behaviors and capabilities.

Key Facts:

1. The study reveals that bonobos, our closest relatives, cannot effectively remember the order of visual stimuli as humans can.
2. Previous research has hinted that the ability to recognize and recall sequential data is uniquely human, critical for language and advanced planning.
3. The research adds weight to the sequence memory-hypothesis, which postulates the evolution of this ability during human prehistory.

Source: Stockholm University

Remembering the order of information is central for a person when participating in conversations, planning everyday life, or undergoing an education. A new study, published in the scientific journal *PLoS One*, shows that this ability is probably human unique. Even the closest relatives of humans, such as bonobos, do not learn order in the same way

JERSEY NUMBERS AND PERCEPTION: HOW NUMBERS IMPACT OUR VIEW OF ATHLETE PHYSIQUE

Jersey Numbers and Perception: How Numbers Impact Our View of Athlete Physique - Neuroscience News

Summary: A new study confirms that football wide receivers wearing jersey numbers between 10 and 19 are perceived as slimmer than those wearing 80-89, even with identical body sizes.

This phenomenon suggests our brains use statistical associations between numbers and sizes to determine body size perception. Notably, by 2019, 80% of wide receivers opted for jersey numbers between 10 and 19.

This research underscores how deeply ingrained implicit biases, shaped by numerical associations, can affect our judgments.

Key Facts:

1. Wide receivers wearing jersey numbers 10-19 are consistently perceived as thinner than those wearing 80-89.
2. This perception is believed to be influenced by learned associations between numbers and sizes, highlighting the brain's statistical learning mechanism.
3. The study underscores the potential implications of such perceptions, leading to broader discussions on implicit biases.

Source: UCLA

In 2019, an ESPN report explored the reasons so many football wide receivers prefer to wear jersey numbers between 10 and 19.

The story found that many of the athletes simply believed the lower numbers made them look faster and slimmer than the higher numbers traditionally assigned to their position.

PSILOCYBIN AND MENTAL HEALTH: A GLIMPSE INTO PSYCHEDELIC THERAPEUTICS

https://neurosciencenews.com/psychedelics-depression-psychopharmacology-23895/

Summary: Psychedelic drugs, notably psilocybin found in "magic mushrooms," are under the spotlight for their potential to treat various mental health disorders. Recent studies reveal promising outcomes using psilocybin for major depressive disorder (MDD) and treatment-resistant depression (TRD).

The therapeutic efficacy seems tied to intense emotional experiences and enhanced psychological flexibility that psilocybin induces. While the promise is undeniable, significant clinical, legal, and research challenges remain.

Key Facts:

1. Clinical trials have reported positive effects of psilocybin in treating psychiatric disorders, particularly MDD and TRD.
2. Psilocybin's therapeutic effects may be linked to increased psychological flexibility, allowing patients to rethink entrenched perspectives.
3. Despite potential therapeutic benefits, psilocybin faces complex regulatory obstacles in various countries, with its status varying widely.

Source: Wolters Kluwer Health

A growing body of evidence suggests that psychedelic drugs may be useful in treating various mental health conditions. However, many challenges remain in defining their clinical benefits and overcoming the complex regulatory obstacles to their use.

TRUTH RELATIVISM AND ITS TIES TO CONSPIRACY THEORY BELIEFS

Truth Relativism and its Ties to Conspiracy Theory Beliefs - Neuroscience News

Summary: Researchers explored the link between the belief that truth is relative and susceptibility to conspiracy theories. Two studies, involving Swedes and Brits, evaluated participants' perspectives on truth and their responses to conspiracy theories and nonsensical sentences.

Results revealed that those believing truth to be subjective were more inclined towards conspiracy beliefs and resisting contradictory facts. This subjective truth approach paradoxically tied with dogmatism.

Key Facts:

1. A strong correlation was found between truth subjectivism and the acceptance of conspiracy theories.
2. Those who saw truth as subjective often disregarded factual contradictions and found meaning in nonsense sentences.
3. Surprisingly, the belief in subjective truth was linked with dogmatism, suggesting these individuals often reject others' truths.

Source: Linkoping University

People who primarily use their own gut feeling to determine what is true and false are more likely to believe conspiracy theories. That is the conclusion of researchers at Linköping University, Sweden,

who have investigated the relationship between susceptibility to misleading information and the conviction that the truth is relative.

“I think many people who emphasise a more relativistic view of what truth is mean well. They believe that it’s important that everyone should be able to make their voice heard. But these results show that such a view can actually be quite dangerous,” says PhD student Julia Aspernäs at the Department of Behavioural Sciences and Learning in Linköping.

In two studies reported in an article in the *Journal of Research in Personality*, she and two colleagues have investigated the relationship between so-called truth relativism and the risk of falling victim to incorrect or fraudulent information.

The first study involves approximately one thousand Swedes. In an online survey, participants were asked to answer questions about their views on what truth is. They then had to take a position on various conspiracy theories and also assess the content of a number of nonsense sentences.

The researchers also collected information on factors previously found to be related to belief in misleading information, such as the ability to reason analytically, political orientation, age, gender and educational level.

In the second study, more than 400 people from the UK participated. Here the number of questions was expanded and the participants’ degree of dogmatism and willingness to adapt their perceptions when faced with new facts were also measured.

From the material, the researchers unearthed two types of truth relativism. One that comprises those who are convinced that what you personally feel to be true *is* true, that is to say, that truth is *subjective*.

And one including those who believe that truth depends on which culture or group you belong to, so-called *cultural relativism.*

The results clearly show that those who believe that the truth is subjective are more likely to believe conspiracy theories and to hold on to their beliefs even when faced with facts that contradict them. They also have a greater tendency to find profound messages in nonsense sentences.

Even when the researchers investigated other possible explanations, such as the ability for analytical thinking or political orientation, subjectivism remained as an independent, explanatory factor.

The connections were not as clear for those who believe that truth is culture-bound and the results there point partly in different directions.

To the researchers’ surprise, the data collection from the UK also showed a link between subjectivism and dogmatism. Thus, someone who claims that the truth is personal can, paradoxically, often at the same time reject other people’s right to their own truth.

Julia Aspernäs thinks that the results are useful when listening to political debates, such as those concerning schooling. People may have different opinions on matters of fact, but behind this may lie a fundamental disagreement about how the world works and what even exists.

“I got the idea when listening to debates about whether students should learn factual knowledge or be encouraged to themselves seek out what they think is true. It sounded like the debaters had completely opposite assumptions about what truth is and argued that their own approach was the best way to help students become critical thinkers.

“Although our study did not investigate causality, we see that truth relativism seems to be linked to a greater belief in misleading information. It may be important to keep that in mind,” she says.

BIG TOBACCO'S LEGACY: PUSHING HYPERPALATABLE FOODS IN AMERICA

https://neurosciencenews.com/hyperpalatable-foods-big-tobacco-23906/

Summary: Food brands owned by tobacco companies have actively disseminated hyperpalatable foods, loaded with salts, fats, and sugars, to American consumers. Researchers say these foods provide an enhanced eating experience that's hard to resist.

From 1988-2001, tobacco-owned foods were significantly more likely to be labeled as hyperpalatable compared to non-tobacco-owned foods. While Big Tobacco divested from the U.S. food system by the mid-2000s, the legacy of hyperpalatable foods persists in the modern American diet.

Key Facts:

1. Tobacco-owned foods between 1988 and 2001 were up to 80% more likely to be hyperpalatable compared to those not owned by tobacco companies.
2. Despite tobacco companies divesting from the U.S. food system by the mid-2000s, over 57% of fat-and-sodium and 17% of carbohydrate-and-sodium hyperpalatable foods were still prevalent in 2018.
3. Hyperpalatable foods excessively stimulate our brain's reward system, disrupting fullness signals, leading to overconsumption and related health issues.

Source: University of Kansas

Many of us know all too well the addictive nature of many foods marketed in the United States — most call it "junk food." In fact, this kind of salty, sweet and high-fat fare makes up the lion's share of what's marketed to Americans.

Researchers employ a more scholarly term for food items featuring purposely tempting combinations of salts, fats and sugars: They're "hyperpalatable."

Now, an investigator at the University of Kansas has conducted research showing food brands owned by tobacco companies — which invested heavily into the U.S. food industry in the 1980s — appear to have "selectively disseminated hyperpalatable foods" to American consumers.

"We used multiple sources of data to examine the question, 'In what ways were U.S. tobacco companies involved in the promotion and spread of hyperpalatable food into our food system?'" said lead author Tera Fazzino, assistant professor of psychology at KU and associate director of the Cofrin Logan Center for Addiction Research and Treatment at the KU Life Span Institute.

"Hyperpalatable foods can be irresistible and difficult to stop eating. They have combinations of palatability-related nutrients, specifically fat, sugar, sodium or other carbohydrates that occur in combinations together."

Fazzino's previous work has shown today that 68% of the American food supply is hyperpalatable.

"These combinations of nutrients provide a really enhanced eating experience and make them difficult to stop eating," she said. "These effects are different than if you just had something high in fat but had no sugar, salt or other type of refined carbohydrate."

Fazzino and her co-authors found between 1988 and 2001, tobacco-owned foods were 29% more likely to be classified as fat-and-sodium hyperpalatable and 80% more likely to be classified as carbohydrate-and-sodium hyperpalatable than foods that were not tobacco-owned.

The KU researchers used data from a public repository of internal tobacco industry documents to determine ownership of food companies, then combed nutrition data from the U.S. Department of Agriculture in

longitudinal analyses to estimate how much foods were “formulated to be hyperpalatable, based on tobacco ownership.”

“The question about their intent —we can’t really say from this data,” Fazzino said. “But what we can say is there’s evidence to indicate tobacco companies were consistently involved with owning and developing hyperpalatable foods during the time that they were leading our food system. Their involvement was selective in nature and different from the companies that didn’t have a parent tobacco-company ownership.”

Fazzino’s co-authors were KU doctoral students Daiil Jun and Kayla Bjorlie, along with Lynn Chollet Hinton, assistant professor of biostatistics and data science at KU Medical Center.

The KU researchers said they built their investigation inspired by earlier work by Laura Schmidt at the University of California-San Francisco.

“She and her team established that the same tobacco companies were involved in the development and heavy marketing of sugary drinks to kids — that was R.J. Reynolds — and that Philip Morris was involved in the direct transfer of tobacco marketing strategies targeting racial and ethnic minority communities in the U.S. to sell their food products,” Fazzino said.

While tobacco companies divested from the U.S. food system between the early to mid-2000s, perhaps the shadow of Big Tobacco has remained. The new KU study finds the availability of fat-and-sodium hyperpalatable foods (more than 57%) and carbohydrate-and-sodium hyperpalatable foods (more than 17%) was still high in 2018, regardless of prior tobacco ownership, showing these foods have become mainstays of the American diet.

“The majority of what’s out there in our food supply falls under the hyperpalatable category,” Fazzino said.

“It’s actually a bit difficult to track down food that’s not hyperpalatable. In our day-to-day lives, the foods we’re surrounded by and can easily grab are mostly the hyperpalatable ones. And foods that are not hyperpalatable, such as fresh fruits and vegetables – they’re not just hard to find, they’re also more expensive.

“We don’t really have many choices when it comes to picking between foods that are fresh and enjoyable to eat (e.g., a crisp apple) and foods that you just can’t stop eating.”

Fazzino said using metrics of hyperpalatability could be one way to regulate formulations of food that are engineered to induce sustained eating.

“These foods have combinations of ingredients that create effects you don’t get when you eat those ingredients separately,” the KU researcher said. “And guess what? These combinations don’t really exist in nature, so our bodies aren’t ready to handle them. They can excessively trigger our brain’s reward system and disrupt our fullness signals, which is why they’re difficult to resist.”

As a result, consumers of hyperpalatable foods are more prone to obesity and related health consequences, even when they don’t intend to overeat.

“These foods may be designed to make you eat more than you planned,” Fazzino said. “It’s not just about personal choice and watching what you eat – they can kind of trick your body into eating more than you actually want.”

HEALTHY HABITS ARE KEY TO CURBING DEPRESSION’S HOLD

https://neurosciencenews.com/healthy-lifestyle-depression-23915/

Summary: A new study delves into the role of lifestyle choices in mitigating depression risks. Drawing from the UK Biobank, researchers analyzed data from nearly 290,000 participants, determining that seven key lifestyle habits significantly reduced depression risk.

Notably, proper sleep was the most influential, decreasing depression risk by 22%. The study emphasizes that, regardless of genetic predisposition, a wholesome lifestyle can substantially lower depression susceptibility.

Key Facts:

1. Seven key lifestyle habits were identified that reduce the risk of depression: moderate alcohol consumption, healthy diet, regular physical activity, healthy sleep, no smoking, low sedentary behaviour, and frequent social connection.
2. Genetic predisposition played a role in depression risk, but lifestyle factors showcased a more significant impact. Those with a favourable lifestyle were 57% less likely to develop depression.
3. MRI brain scans revealed that a healthier lifestyle is associated with larger volumes in brain regions like the pallidum, thalamus, amygdala, and hippocampus.

Source: University of Cambridge

A healthy lifestyle that involves moderate alcohol consumption, a healthy diet, regular physical activity, healthy sleep and frequent social connection, while avoiding smoking and too much sedentary behaviour, reduces the risk of depression, new research has found.

In research published today in *Nature Mental Health*, an international team of researchers, including from the University of Cambridge and Fudan University, looked at a combination of factors including lifestyle factors, genetics, brain structure and our immune and metabolic systems to identify the underlying mechanisms that might explain this link.

According to the World Health Organization, around one in 20 adults experiences depression, and the condition poses a significant burden on public health worldwide. The factors that influence the onset of depression are complicated and include a mixture of biological and lifestyle factors.

To better understand the relationship between these factors and depression, the researchers turned to the UK Biobank, a biomedical database and research resource containing anonymised genetic, lifestyle and health information about its participants.

By examining data from almost 290,000 people – of whom 13,000 had depression – followed over a nine-year period, the team was able to identify seven healthy lifestyle factors linked with a lower risk of depression. These were:

- moderate alcohol consumption
- healthy diet
- regular physical activity
- healthy sleep
- never smoking
- low-to-moderate sedentary behaviour
- frequent social connection

Of all of these factors, having a good night's sleep – between seven and nine hours a night – made the biggest difference, reducing the risk of depression, including single depressive episodes and treatment-resistant depression, by 22%.

Frequent social connection, which in general reduced the risk of depression by 18%, was the most protective against recurrent depressive disorder.

Moderate alcohol consumption decreased the risk of depression by 11%, healthy diet by 6%, regular physical activity by 14%, never smoking by 20%, and low-to-moderate sedentary behavior by 13%.

Based on the number of healthy lifestyle factors an individual adhered to, they were assigned to one of three groups: unfavorable, intermediate, and favorable lifestyle. Individuals in the intermediate group were around 41% less likely to develop depression compared to those in the unfavorable lifestyle, while those in the favorable lifestyle group were 57% less likely.

The team then examined the DNA of the participants, assigning each a genetic risk score. This score was based on the number of genetic variants an individual carried that have a known link to risk of depression. Those with the lowest genetic risk score were 25% less likely to develop depression when compared to those with the highest score – a much smaller impact than lifestyle.

In people at high, medium, and low genetic risk for depression, the team further found that a healthy lifestyle can cut the risk of depression. This research underlines the importance of living a healthy lifestyle for preventing depression, regardless of a person's genetic risk.

Professor Barbara Sahakian, from the Department of Psychiatry at the University of Cambridge, said: "Although our DNA – the genetic hand we've been dealt – can increase our risk of depression, we've shown that a healthy lifestyle is potentially more important.

"Some of these lifestyle factors are things we have a degree control over, so trying to find ways to improve them – making sure we have a good night's sleep and getting out to see friends, for example – could make a real difference to people's lives."

To understand why a healthy lifestyle might reduce the risk of depression, the team studied a number of other factors.

First off, they examined MRI brain scans from just under 33,000 participants and found a number of regions of the brain where a larger volume – more neurons and connections – was linked to a healthy lifestyle. These included the pallidum, thalamus, amygdala and hippocampus.

Next, the team looked for markers in the blood that indicated problems with the immune system or metabolism (how we process food and produce energy). Among those markers found to be linked to lifestyle were the C-reactive protein, a molecule produced in the body in response to stress, and triglycerides, one of the primary forms of fat that the body uses to store energy for later.

These links are supported by a number of previous studies. For example, exposure to stress in life can affect how well we are able to regulate blood sugar, which may lead to a deterioration of immune function and accelerate age-related damage to cells and molecules in the body.

Poor physical activity and lack of sleep can damage the body's ability to respond to stress. Loneliness and lack of social support have been found to increase the risk of infection and increase markers of immune deficiency.

The team found that the pathway from lifestyle to immune and metabolic functions was the most significant. In other words, a poorer lifestyle impacts our immune system and metabolism, which in turn increases our risk of depression.

Dr Christelle Langley, also from the Department of Psychiatry at the University of Cambridge, said: "We're used to thinking of a healthy lifestyle as being important to our physical health, but it's just as important for our mental health. It's good for our brain health and cognition, but also indirectly by promoting a healthier immune system and better metabolism."

Professor Jianfeng Feng, from Fudan University and Warwick University, added: "We know that depression can start as early as in adolescence or young adulthood, so educating young people on the importance of a healthy lifestyle and its impact on mental health should begin in schools."