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The Intuitive Trap: Understanding Cognitive Bias in the Digital Age

Sezgi Tuzağı: Dijital Çağda Bilişsel Yanlılıkları Anlamak

Cansu AKOĞLAN

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ABSTRACT

This article presents a philosophical perspective on the relationship between critical thinking and new media, employing dual-process theories to explore the cognitive mechanisms involved. Dual-process theories, which distinguish between fast, intuitive thinking and slower, analytical reasoning, provide a valuable framework for understanding how individuals engage with the overwhelming flow of information in digital environments. The paper argues that while critical thinking is traditionally seen as an analytical activity, more is needed in the context of new media. The fast-paced, heuristic-driven nature of digital content - ranging from rapidly evolving news feeds to algorithm-driven information ecosystems - means that intuitive processes often dominate user engagement, leading to cognitive biases. Therefore, this work advocates for a holistic approach that balances the need for criticality in new media with an understanding of both intuitive and analytical thinking. By offering a novel integration of dual-process theories with media literacy frameworks, this study demonstrates how a comprehensive awareness of cognitive mechanisms can lead to more effective critical engagement with digital content. The findings underscore the importance of a dual approach in fostering both reflective and adaptive new media literacy, and the results highlight the limitations of purely analytical methods while emphasizing the value of heuristic awareness in navigating complex new media environments.

Keywords: Media Literacy, Cognitive Biases, Metacognition, Philosophy of Cognition, Critical Thinking.

ÖZ

Bu makale, eleştirel düşünme ve yeni medya arasındaki ilişkinin felsefi bir incelemesini sunmakta ve ilgili bilişsel mekanizmaları anlamak üzere ikili süreç teorilerini kullanmaktadır. Hızlı, sezgisel düşünme ile daha yavaş, analitik akıl yürütme arasında ayrım yapan ikili süreç teorileri, bireylerin dijital ortamlardaki ezici bilgi akışıyla nasıl etkileşime girdiğini anlamak için değerli bir çerçeve sağlar. Bu makale, eleştirel düşünmenin geleneksel olarak analitik bir faaliyet olarak görülmesine rağmen, yeni medya bağlamında daha fazlasına ihtiyaç duyulduğunu savunmaktadır. Hızlı haber akışlarından algoritma güdümlü bilgi ekosistemlerine kadar, çevrimiçi platformların hızlı tempolu, sezgisel güdümlü doğası, sezgisel süreçlerin genellikle kullanıcı katılımına hakim olduğu ve bilişsel yanlılıklara yol açtığı anlamına gelir. Bu çalışma, ikili süreç teorilerinin medya okuryazarlığı çerçeveleriyle yeni bir birleşimini sunarak, bilişsel mekanizmalara ilişkin kapsamlı bir farkındalığın dijital içerikle nasıl daha etkili bir eleştirel etkileşimi sağlayabileceğini göstermektedir. Bulgular, hem reflektif hem de adaptif yeni medya okuryazarlığını teşvik etmede ikili bir yaklaşımın önemini vurgulamakta ve sonuçlar, karmaşık yeni medya ortamlarında gezinirken sezgisel farkındalığın değerini vurgulayıp, salt analitik yöntemlerin sınırlılıklarını ortaya koymaktadır.

Anahtar Kelimeler: Medya Okuryazarlığı, Bilişsel Yanlılıklar, Üstbiliş, Biliş Felsefesi, Eleştirel Düşünme

Introduction

In the digital age, new media—encompassing social media platforms, online news outlets, and a vast array of digital content—has become a central force in shaping how we acquire knowledge, form opinions, and make decisions. The constant influx of information through these channels has transformed the volume of data we encounter and the cognitive processes we use to interpret it. It is clear that we need to engage with the produced content carefully and critically. Still, how we can effectively achieve this in such a fast-paced and complex information landscape remains uncertain.

As individuals navigate this complex and often overwhelming landscape, they rely on a blend of rapid, intuitive judgments and slower, more reflective reasoning. This duality in cognitive processing, mainly articulated in dual-process theories, offers valuable insights into how to engage with new media, highlights the challenges posed by the digital environment, and thus helps us to find a way to navigate.

Dual-process theories refer to a framework in cognitive psychology that distinguishes between two distinct types of mental processes: Type1 and Type2. Type1 processes are fast, automatic, and often nonconscious, relying on intuitive judgments and heuristic shortcuts (Evans & Frankish, 2009: 1). These processes operate with little cognitive effort. They are typically used in situations requiring quick decisions. In contrast, Type2 processes are slow, deliberate, and conscious, involving analytical reasoning and logical thinking. They require greater cognitive resources and are employed in more complex, reflective tasks. Dual-process theories explore the interaction between these two modes of thinking, examining how they influence human reasoning, decision-making, and the susceptibility to cognitive biases.

The distinction between these two cognitive processes is crucial for understanding how individuals engage with new media. In digital environments, where content is often designed to elicit quick reactions, Type1 thinking predominates. This can lead to the reinforcement of cognitive biases, such as confirmation bias, where users seek out and give more weight to information that aligns with their preexisting beliefs. Additionally, the design of new media platforms, which prioritize engagement through algorithms that cater to user preferences, further exacerbates the reliance on intuitive judgments, often at the expense of more reflective, analytical thought.

Given the pervasive influence of new media, exploring how these cognitive processes shape our relations with digital content and the implications for critical thinking in the digital age is essential. This article aims to bridge the gap between dual-process theory and critical thinking in new media by examining how intuitive and analytical thinking influences our engagement with digital content. By understanding these dynamics, we can better navigate the challenges posed by new media and develop strategies to enhance critical thinking in a digital world.

The first section provides a brief description of Type1 and Type2 processes. The second part examines the Type1 processes—fast, automatic, and intuitive—that dominate our engagement with new media. The main focus was to explore how heuristic-based decision-making, amplified by the design of digital platforms, often leads to cognitive biases and quick, uncritical judgments. The third section focuses on Type2 processes—slow, deliberate, and reflective thinking. Here, the article examines the importance of analytical thinking when engaging with new media and discusses the challenges the digital environment poses to this type of cognitive processing. Emphasizing how information overload, the rapid pace of content consumption, and cognitive load contribute to the difficulty of engaging in more profound, more critical analysis. It is also stated that some specific cognitive biases are exacerbated by new media, such as confirmation bias and the anchoring effect. The article discusses how these biases can influence intuitive and analytical thinking and the implications for interpreting and evaluating digital content. The fourth and final section introduces the

concept of metacognition—thinking about one's own thinking—and its relevance to navigating new media. It is argued that enhancing metacognitive awareness and new media literacy is essential for mitigating the influence of cognitive biases and improving critical thinking in digital environments. It also explores how metacognitive tools might fail and how to overcome metacognitive errors by providing a general critical thinking framework and how metacognition fits into this framework with the help of dual-process theories.

Type1 and Type2 Thinking Processes

Logical thinking and intuition have long been considered opposing ways of reasoning: Logical thinking is deliberate and aims to create precise and defensible understandings of the world, while intuition operates effortlessly, offering quick, approximate solutions without conscious effort (Osman, 2004: 988). In this fashion, dual-process theories divide mental processes into two general categories, depending on whether they operate automatically or in a controlled fashion: Type1 and Type2.

Dual-process theories are well-supported frameworks not just in psychology but also in philosophy. These theories explain human cognition, addressing various cognitive functions such as reasoning, decision-making, and social evaluation (Frankish, 2010). Reasoning and decision-making are critical cognitive areas where the dual-process framework finds its most practical and impactful application. Understanding the interplay of these two types of processes reveals how intuitive judgments may unconsciously shape reasoning and highlights the necessity of cultivating reflective awareness. Thus, this dualistic approach not only informs empirical studies but also enriches the philosophical discourse on how human cognition navigates between intuitive and rational processing.

To explain the dynamic between Type1 and Type2 processes in reasoning, Evans (2006: 379), a prominent figure in dual-process theories – especially in reasoning - introduces a mental model that sheds light on the underlying principles of our cognitive functioning. Evans proposes a mental model based on three core principles: the principle of singularity, the principle of relevance, and the principle of satisficing. According to this model, the mind operates by focusing on a single, most relevant interpretation of a situation (singularity), prioritizing the information that appears most pertinent to the task at hand (relevance), and settling for a solution that is 'good enough' rather than optimal (satisficing). The principle of singularity emerges due to the analytical process' limited processing capacity, which forces it to focus on one key interpretation at a time. The relevance principle stems from Type1 processes, which provide the content for analysis based on the most pertinent information and beliefs available. Meanwhile, the satisficing principle reflects the analytical process' tendency to adhere to the current model or solution unless a challenge prompts further scrutiny (Evans J. S., 2006: 379). Building on this theoretical foundation, the influence of these cognitive principles can be observed in everyday occurrences, where automatic, Type1 responses often manifest vividly.

In some daily events, individuals react automatically and instinctively without engaging in deliberate, reflective reasoning. The sports fan urging a player in a rerun, the cinema-goer reacting fearfully to a horror scene, the man standing on an observation terrace on a cliff, trembling despite knowing he is safe (Gendler, 2008: 552-553). These responses are typical of Type1 processes—fast, automatic, and largely unconscious; all these actions occur because of deeply ingrained, automatic associations or bodily responses. Despite the individuals' conscious beliefs (e.g., knowing the game is a rerun or the cliff poses no real danger), their immediate, non-reflective reactions align with what Gendler describes as *aliefs*—automatic, pre-rational responses that can sometimes conflict with a person's explicit *beliefs* (Gendler, 2008). This clearly manifests how intuitive thinking operates, often overriding or acting independently of rational, Type2 processes.

Unlike Type1 processes, Type2 thinking requires conscious effort and is typically engaged when individuals are confronted with tasks that demand logical reasoning and critical analysis (Evans J. S., 2008: 262). For example, when faced with a problem that requires careful calculation or the evaluation of evidence, Type2 processes allow individuals to methodically assess the situation, consider various possibilities, and arrive at a well-reasoned conclusion. These processes help to identify and correct errors that might arise from initial intuitive judgments, ensuring that the final decision is both rational and logically sound.

Although Type2 processes are instrumental in reaching well-reasoned conclusions, they have significant limitations. These processes rely heavily on finite working memory capacity, which can become easily overloaded when dealing with complex information (Evans J. S., 2006: 385). Unlike Type1 processes, which operate quickly and efficiently, Type2 thinking is not suited for multitasking; it requires focused, sequential attention to effectively analyze and reason through a problem (Shafir & Tversky, 1992: 469). Moreover, despite its thorough and deliberate nature, Type2 processing is not foolproof. It can still be influenced by biases, and the conclusions drawn may be flawed if the underlying assumptions or the quality of the information being analyzed are compromised (Evans J. S., 2019: 387). Thus, while Type2 processes are crucial for logical reasoning, they are constrained by cognitive resources and are not immune to error.

This exploration of how our cognitive processes oscillate between the rapid, automatic responses of Type1 thinking and the slow, effortful deliberation of Type2 reasoning sets the stage for understanding how these mechanisms manifest in our engagement with new media. By delving into this, it is possible to illustrate the challenges and implications of navigating new media with a cognitive architecture often swayed by instinctive, heuristic-driven responses.

Intuitive Judgments in the Age of New Media

The term 'new media' describes the sweeping transformation across various media and communication sectors that began in the late 1980s, marked by the rise of digital and interactive technologies that fundamentally altered traditional media landscapes (Lister et al., 2009: 10). Since new media is used as a unifying term, it encompasses a range of emerging forms of digital communication and media, highlighting both the technological advancements and the social, cultural, and creative shifts that have taken place. New media encompasses not only novel digital formats, such as virtual worlds and interactive online environments, but also the digital transformation of traditional media (Brey&Soraker, 2009: 1376). The defining characteristics of new media—such as being digital, interactive, and virtual—are presented as foundational concepts, but the extent and relevance of each characteristic can vary depending on the specific media technology involved (Lister et al., 2009: 13).

At the heart of our engagement with new media lies a heavy reliance on Type1 processes. When faced with an overwhelming amount of information, from news headlines to social media posts, individuals often resort to cognitive shortcuts, or heuristics, to make quick judgments. These heuristics are essential for managing the sheer volume of content encountered daily but can lead to systematic errors and biases.

Relying on heuristics is seen as leading to poor or flawed decision-making. Since heuristics often bypass detailed analysis, they can result in systematic errors or biases (Tversky & Kahneman, 2002). In this sense, "The term biases refers to the systematic errors that people make in choosing actions and in estimating probabilities, and the term heuristic refers to why people often make these errors – because they use mental shortcuts (heuristics) to solve many problems" (Stanovich & Toplak, 2020:110). For example, someone might make a hasty decision based on a heuristic that turns out to be incorrect or illogical. Imagine you're

at the grocery store and must pick a bottle of olive oil. You see two options: a well-known brand and a brand you don't recognize. Without much thought, you choose the famous brand because you've heard of it before, assuming it's of higher quality. This is an example of the availability heuristic, where you rely on the ease with which a brand comes to mind to make a decision. However, this mental shortcut might lead you to overlook the fact that the lesser-known brand could be of equal or even better quality, perhaps at a lower price. By relying on this heuristic, you might make an error in judgment, assuming familiarity equals quality without considering other important factors like the oil's origin, processing method, or storage conditions. When decisions are consistently flawed due to these shortcuts, heuristic-based cognition is labeled as irrational—a departure from what would be considered logical or sound reasoning.

Bounded rationality is a concept that recognizes the limitations of human decision-making. It acknowledges that people cannot always make perfectly rational decisions because of constraints like limited information, time, and cognitive resources (Simon, 1990). Following the olive oil example, the heuristic still offers a 'good enough' solution despite the potential oversight. The familiar brand is likely to be of reasonable quality, and it meets your needs without requiring an in-depth comparison of all available options, saving you time and cognitive effort in the process. In this more charitable view, heuristics are seen as practical tools that help us make good enough decisions within these constraints. Instead of striving for unattainable perfect rationality, heuristics allow us to navigate complex situations efficiently, even if the outcomes aren't always ideal. This perspective considers heuristic-based cognition as a realistic and adaptive approach to decision-making in an imperfect world.

The reliance on Type1 processes in the new media can be understood through the lens of heuristic-based decision-making. One prominent example is the availability heuristic, where an event's perceived frequency or importance is influenced by how easily it can be recalled (Tversky & Kahneman, 1973: 208). For example, the selective coverage of dramatic events, like airplane crashes and terrorism, leads people to overestimate the likelihood of dying from such accidents while underestimating more common causes of death, like heart attacks or strokes. This skewed perception is due to the availability heuristic, where people judge the frequency or likelihood of an event based on how easily examples come to mind. As a result, people develop distorted perceptions of risk, often fearing highly publicized dangers more than the everyday risks that are statistically more likely to harm them (Evans, 1989: 22). In the context of new media, this means that the most sensational, emotionally charged, or frequently shared content is often seen as more significant than it may actually be. This kind of feedback loop creates echo chambers, where users are continually exposed to information that aligns with their existing views, deepening the cognitive biases they already have.

The design of new media platforms themselves is also geared toward maximizing engagement through intuitive, quick actions. Features like 'likes,' 'shares,' and algorithmic content curation are optimized to trigger immediate responses (Tomalin, 2023: 4), often at the expense of deeper, more analytical engagement. As a result, users may develop habits of rapid, uncritical information consumption, which hinders their ability to engage in more reflective, Type2 cognitive processes. Algorithms prioritizing such content further exacerbate this effect, reinforcing users' preexisting beliefs and limiting exposure to diverse perspectives (Huszár, 2021).

Moreover, platforms increasingly prioritize frictionless movement, streamlining user engagement to ensure continuous engagement. This is especially apparent in social media services. Facebook is credited with popularizing the concept of 'frictionless sharing.' This idea was introduced around 2011 when Facebook rolled out features that allowed users to automatically share their activities—such as what they were reading,

listening to, or watching—without needing to post updates manually (Payne, 2014: 88). This automatic sharing feature aimed to reduce the 'friction' or effort involved in sharing content, making it easier for users to share their activities with their network continuously. In online engagement, 'friction' typically refers to any avoidable delay or hindrance in a process or activity, such as making a payment, uploading a photo, or dealing with an unwanted pop-up. These interruptions can irritate and frustrate users (Tomalin, 2023: 2) and interrupt their platform engagement. In this environment, intuitive judgments are not just expected but are actively encouraged by the structure of the platforms themselves. As a result, users may develop habits of quick, uncritical consumption of information, which can perpetuate misinformation and entrenchment of biased thinking.

This dynamic is akin to the phenomenon where an intuitive, seemingly correct response quickly comes to mind, but it is revealed to be incorrect upon closer inspection. As described by Tversky and Kahneman in 1974, the anchoring effect refers to an effect where individuals rely too heavily on an initial piece of information—the 'anchor'—when making decisions or estimates. In their experiments, Tversky and Kahneman demonstrated that even arbitrary or irrelevant numbers could significantly influence people's judgments. For example, when participants were asked to estimate the percentage of African countries in the United Nations after spinning a wheel that landed on a random number, their estimates were heavily influenced by the number on the wheel despite its irrelevance to the actual question (Tversky & Kahneman, 1974: 1128). This showed how initial exposure to a number could skew subsequent judgments, leading to biased decision-making. The anchoring effect reveals the power of initial information in shaping our thought processes, even in situations where logic and reason would suggest that the anchor should be ignored. Similarly, in new media, the initial, intuitive reaction to content may feel correct or aligned with one's beliefs. Still, this response is often based on cognitive shortcuts that overlook essential details or context. The challenge lies in recognizing when these intuitive judgments are at play and understanding the potential for error inherent in such quick decision-making processes.

In sum, the prevalence of Type1 cognitive processes in the digital age is both a necessity and a pitfall. While these processes allow for the efficient handling of the vast amounts of information available online, they also expose users to cognitive biases that can distort judgment and decision-making. The key to navigating this landscape lies in the ability to identify when intuitive thinking dominates and to recognize the moments where a more deliberate, reflective approach is required.

Analytical Thinking And Its Challenges In New Media

While Type1 processes dominate initial engagement with digital content, especially in digital information landscapes, the importance of engaging Type2 processes cannot be overstated. Critical engagement with content, particularly in the context of new media, requires individuals to move beyond intuitive judgments and employ analytical reasoning. This is essential for tasks such as evaluating the credibility of sources, distinguishing between factual information and misinformation, and making well-informed decisions.

Type2 thinking is slow and analytical, involving hypothetical reasoning. We create mental simulations to test actions or reasons when engaging in such reasoning. For reasoning to be effective, it is crucial to keep these simulations separate from our real-world understanding. The ability to distinguish real-world knowledge from imagined scenarios and to maintain this separation while considering hypothetical situations is essential for accurate hypothetical reasoning and is a defining characteristic of Type2 thinking (Stanovich & Toplak, 2012: 9).

However, the very nature of new media presents significant challenges to activating Type2 processes. The rapid pace of information flow, the

design of platforms prioritizing speed and ease of engagement, and the cognitive load imposed by multitasking online all conspire to make reflective, analytical thinking more difficult. For instance, when users are bombarded with constant notifications, pop-up ads, and a never-ending stream of updates, their cognitive resources are spread thin, making it harder to engage in the deep thinking necessary for critical analysis. At the heart of all difficulties in engaging in Type2 thinking is the 'cognitive miserliness' concept.

The concept of cognitive miserliness refers to the tendency of individuals to conserve mental energy by relying on simple, efficient thinking strategies rather than engaging in more effortful, complex reasoning. "Humans are cognitive misers because their basic tendency is to default to processing mechanisms of low computational expense" (Stanovich K. E., 2018: 424). This tendency arises because our cognitive resources, such as attention and working memory, are limited. This leads us to favor mental shortcuts, or heuristics, that allow us to make quick decisions with minimal cognitive effort. Cognitive miserliness has two key aspects: first, Type2 thinking is heavily dependent on limited cognitive resources (Stanovich K. E., 2021: 200), making it more demanding and less frequently engaged; second, Type1 thinking is highly effective primarily in benign environments (Stanovich K. E., 2018: 426) where quick, automatic responses are sufficient and readily available.

In a benign environment, cues—such as noticeable, emotionally charged, or easily understood signals—are reliable and valuable for making quick decisions. Our heuristics can work effectively in these situations because the environment provides clear, accurate information that can guide us to the correct conclusions or actions. For example, in a benign environment, using a familiar anchor (like a well-known price for a product) can help us make a quick and correct decision. In contrast, a hostile environment either lacks these helpful cues or provides misleading ones, making it difficult for fast, intuitive thinking to be accurate. Additionally, an environment becomes hostile when others (like advertisers or content designers) manipulate the cues to exploit our cognitive shortcuts for their benefit - for instance, supermarkets might be designed to subtly guide customers towards impulse buys, taking advantage of our tendency to make quick, heuristic-based decisions (Stanovich K. E., 2018: 426).

Given the complexity of human cognition, it becomes clear that understanding how we navigate between these different modes of thinking is crucial. Understanding how our cognitive processes interact—especially in environments that encourage quick, heuristic thinking—requires a deeper look into the mental mechanisms that guide our reasoning. While cognitive miserliness and the nature of our environments explain much about why we often default to intuitive thinking, they don't fully address how biases can emerge even when we attempt to engage in Type2 thinking and how to avoid them. Evans' satisficing principle gives valuable insights for deeper understanding.

Imagine you receive a social media notification about a limited-time sale on a popular electronics website. The notification claims that the first 100 people to click will receive a 50% discount. In this scenario, you form a single mental model representing the situation—specifically, the belief that this is a genuine offer you must act on immediately to avoid missing out. Your cognitive system doesn't generate multiple possible interpretations; instead, as per the principle of singularity, it settles on this one model as the most likely and compelling. As the principle of relevance operates, your intuitive thinking (Type1) provides context by drawing on relevant past experiences and beliefs, such as previous exposure to similar sales or the general understanding that discounts can expire quickly. This information feels highly relevant and aligns well with your constructed mental model, reinforcing the idea that you should act quickly. The satisficing principle suggests that once this mental model is established, it is subjected to minimal analytical evaluation. You are inclined to accept it as the truth unless there's

a strong reason to challenge it, which doesn't seem necessary given the situation's urgency. The cognitive effort to deeply analyze the offer is bypassed, and the initial model is accepted as 'good enough,' leading you to click on the link without further scrutiny.

Digital content is specially designed to trigger Type1 cognitive processes by minimizing friction and encouraging seamless, intuitive engagement. Content creators strategically use cues like striking hashtags, catchy headlines, and immediate calls-to-action to engage users quickly (Mittal et al., 2024), tapping into their automatic, intuitive responses. These cues are crafted to reduce the need for reflective thinking, making it easy for users to engage with content through likes, shares, or comments without pausing to deliberate. By streamlining the whole process, creators aim to keep users engaged with minimal effort, relying on the efficiency of Type1 processes to sustain high levels of user activity and drive their interaction goals.

When new media content is designed to flow effortlessly and cater to Type1, it effectively traps users in a cycle of intuitive, automatic responses, making it difficult—if not impossible—to shift into the more reflective and analytical Type2 thinking. Evans' mental model suggests that once a singular, relevant mental model is formed and accepted with minimal evaluation, the cognitive environment created by these platforms discourages any deeper processing. This becomes particularly problematic in what Stanovich describes as a hostile environment, where cues are often misleading or manipulated for ulterior motives, such as driving user engagement or promoting sales. In such contexts, relying solely on the Type1 process will likely result in suboptimal outcomes. Consequently, the user is left with decisions that may feel satisfying at that moment but are ultimately flawed or biased.

Another significant challenge is the overwhelming volume of information presented, further complicating the ability to engage in reflective, Type2 thinking in new media consumption. The abundance of online information can lead to what is often termed 'information overload,' coined by David Lewis in 1994 (Han, 2017: 60). This concept is not new. Kahneman states that "people are more likely to be influenced by empty persuasive messages, such as commercials when they are tired and depleted" (Kahneman, 2011: 81). When faced with too many choices or too much data, individuals may feel overwhelmed and default to more superficial, more heuristic-based judgments. Furthermore, this flow of information has been linked to mental impairment. Han suggests that Information Fatigue Syndrome (IFS) is a psychological condition resulting from an overload of information - those affected report a gradual decline in their ability to analyze, difficulties with maintaining attention, a pervasive sense of discomfort, and an increasing inability to handle responsibilities (Han, 2017: 60). This overload not only impairs the ability to think critically but also fosters a sense of fatigue, further reducing the likelihood that users will engage in Type2 processing. Developing a media critique focusing solely on engaging Type2 thinking would fall short in new media, where information flows rapidly. This speed often overwhelms the cognitive capacity for slow reflection. Therefore, relying only on deep, deliberate thinking is insufficient. This is especially apparent in the area of cognitive biases.

New media not only shapes how we think but also amplifies existing cognitive biases. Furthermore, bias in new media is a double-edged sword: not only can consumers often bring their biased thinking to the interpretation of content, but the content they encounter can also be inherently biased. For example, compared to their work in traditional news articles, journalists were likelier to use emotional, present-focused language on social media by exhibiting more certainty but using fewer analytical and numerical terms, indicating a tendency toward self-validating and intuitive reasoning (Lee & Hamilton, 2022). This interaction between biased information and preexisting cognitive biases can significantly distort understanding and reinforce misconceptions.

One of the most pervasive biases exacerbated by digital environments is the anchoring effect, where initial exposure to a piece of information unduly influences subsequent judgments. In new media, headlines, tweets, or viral posts can act as anchors, shaping how users interpret subsequent information. The anchoring effect can lead to persistent misconceptions even if the initial information is later debunked or contradicted (Schwarz & Newman, 2017). Individuals with lower cognitive abilities tend to adjust their views less when they discover the information is wrong, compared to those with higher cognitive abilities, who are better at revising their judgments. This suggests that the initial exposure to false information has a lasting impact, especially for those less capable of fully re-evaluating their beliefs (De keersmaecker & Roets, 2017). While individuals with higher cognitive abilities may be better at revising their judgments when exposed to corrected information, it does not necessarily mean they always engage in better reasoning.

Another significant cognitive bias is confirmation bias—the tendency to favor information that confirms our preexisting beliefs while dismissing or undervaluing evidence that contradicts them. This bias is particularly dangerous in new media, where algorithms tailor content to users' preferences, creating personalized information bubbles that reinforce existing views and shield individuals from contrary perspectives (Francisco-Javier et al., 2024). Myside bias, a form of confirmation bias related explicitly to reasoning, refers to the tendency of individuals to favor information, arguments, or evidence that supports their preexisting beliefs or opinions while discounting or ignoring information that challenges them. This type of bias shows that when individuals are not explicitly warned to avoid biases or engage in deliberate reasoning, those with higher cognitive capacity can be just as prone to biases as those with lower capacity (Stanovich, West, & & Toplak, 2013). This is because cognitive biases, like confirmation bias or myside bias, often operate at an intuitive level (Type1 thinking), which everyone is susceptible to.

However, cognitive biases are not confined to intuitive, Type1 thinking. Even when users engage in more analytical, Type2 processing, their reasoning can still be colored by their underlying biases. For example, belief bias can cause individuals to evaluate arguments based on whether the conclusions align with their preexisting beliefs rather than on the logical structure of the arguments themselves. The 'rose syllogism' illustrates how intuitive conclusions conflict with formal logic. The argument, "All flowers have petals; all roses have petals; therefore, all roses are flowers," is invalid because the conclusion doesn't follow logically from the premises. However, people often find this conclusion natural even though they were instructed to be aware of the potential conflict between the validity of an argument and the truth of its premises; they still tend to accept it due to their prior knowledge that roses are indeed flowers (Stanovich et al., 2016: 54).

Drawing on Evans' mental model, it is easy to see how even Type2 thinking can produce biased responses. In general, heuristic responses involve accepting or rejecting conclusions based on how believable they are, which leads to belief bias. When analytical reasoning is engaged, it tries to simulate the logical structure of premises in a mental model. However, even more thoughtful reasoning can still be influenced by the believability of the conclusion. Instead of thoroughly examining all possibilities, reasoners stop once they find a mental model that either supports or refutes the conclusion according to their beliefs. As Evans refers to, this satisficing principle means that even logical reasoning isn't free from bias. Therefore, biases are not the direct result of Type1 thinking; instead, they stem from one's mental representations (Evans J. S., 1989: 26).

Following the discussion on biases not restricted to Type1 thinking, mindware becomes an essential tool to overcome faulty mental representations. In reasoning, we often deal with hypothetical or abstract scenarios that don't correspond directly to the physical world, such as mathematical models or hypothetical syllogisms. In this context, knowledge, rules, procedures, and strategies

are the mental frameworks, i.e., mindware, that individuals retrieve from memory to help process and reason through these abstract representations (Stanovich & Toplak, 2020: 1119). Therefore, in hostile environments, such as digital platforms, we should seek not to engage in Type1 thinking but also improve mindware to detect and override possible errors, including cognitive biases. Overriding errors will be less likely if one lacks the necessary mindware (Stanovich, 2018: 433).

Avoiding cognitive biases is deeply connected to developing and using mindware—the cognitive tools, strategies, and knowledge necessary for rational thinking. Mindware includes awareness of one's cognitive skills, awareness of common fallacy and biases (Simonovic et al., 2023), thinking dispositions (Stanovich et al., 2016: 207), and the necessary knowledge (Stanovich, 2018) that shape how we process information. To effectively navigate new media, where biases are prevalent due to algorithmic filters and personalized content, i.e., hostile environment, individuals must engage with a critical mindset that leverages mindware.

In understanding how mindware operates, it's crucial to see it not merely as a set of tools and strategies but as an integrative framework encompassing metacognitive skills, media literacy, and a broader approach to critical thinking. Metacognition involves awareness of one's thought processes and recognizing when biases might influence judgments. Media literacy sharpens this awareness by equipping individuals with the ability to evaluate content in a digital environment critically. Together, these elements form the foundation of a comprehensive critical thinking approach that not only counters cognitive biases but also fosters a deeper, reflective engagement with new media and information in general.

Metacognition and Media Literacy in The Digital Age

In the digital age, new media literacy has become an essential skill for navigating the complex information and communication landscape. Media literacy traditionally focuses on the ability to access and analyze content across various formats, equipping individuals with critical thinking tools to engage with traditional media. New media literacy expands this concept to include digital platforms, emphasizing not only consuming but also producing and sharing content in interactive environments. Together, these literacies empower users to critically engage with old and new media, fostering informed and responsible participation in the media ecosystem.

Media literacy was defined as the capacity to access, analyze, evaluate, and communicate messages across various formats (Chen et al., 2011:85). In 2007, led by Faith Rogow, the American media literacy community established the Core Principles of Media Literacy Education, emphasizing the importance of active inquiry and critical thinking in media message creation and understanding, while also uniting educators around common goals and practices (Hobbs & Jensen, 2009). One of the most prominent media literacy theorists, Renee Hobbs, emphasizes the role of critical thinking in media literacy as a core component of empowering individuals to consume media and actively question, analyze, and evaluate the messages they encounter (Hobbs & McGee, 2014). This critical engagement is essential for fostering informed and reflective media consumers who can navigate the complex media landscape with awareness and responsibility.

The critical aspect of literacy is also essential in new media literacy. Chen et al. developed a quite influencing framework for new media literacy, incorporating the continuum from consumption to prosumption and functional to critical aspects of new media literacy (Chen et al., 2011). Borrowing prosumption from Alvin Toffler, a term combining consumption and production (Ritzer et al., 2012: 379), they define it as "one's ability to produce media content, in addition to consuming skills" (Chen, 2011:85). Chen et al. regard criticality as crucial in both consumption and proconsumption in new media; which reflects a need for a deep awareness of both the content produced and the broader implications of participation in media-rich

environments (Chen, 2011: 86).

Developing from Chen et al., Lin et al.'s (2013: 162) framework for New Media Literacy (NML) is comprehensive and effectively addresses the skills needed to engage with digital media. The framework is divided into four components: Functional Consuming involves accessing and understanding new media content, focusing on technical skills and comprehension. Critical Consuming requires deeper skills like analyzing, synthesizing, and evaluating new media messages. Functional Prosuming includes the creation and distribution of new media content, while Critical Prosuming emphasizes active participation and content creation that integrates social and cultural values, encouraging critical engagement with new media platforms (Lin et al., 2013). Also, in their framework, there are different indicators for each type of component. Components are grouped mainly into two groups: consuming and prosuming. Both groups have functional and critical components.

A new media consumer should express five consuming indicators: first is 'consuming skill' which covers technical skills for consuming media, including operating a computer, searching for information, and using the internet; second is 'understanding' which indicates grasping the literal meaning of content at a textual level; 'analysis' requires deconstructing messages, recognizing them as subjective and socially constructed; 'synthesis' involves remixing and reconstructing content, integrating personal viewpoints, and comparing different sources; and finally 'evaluation' is critically questioning and challenging the credibility of the content, representing a higher-order criticality (Lin et al., 2013: 164).

They also acknowledge five prosuming indicators: 'prosuming skill' includes technical skills for producing and creating content, such as setting up online accounts and using communication tools; 'distribution' suggests abilities to disseminate and share information via social networks, including sharing opinions and rating products; 'production' is creating and mixing the content, such as digitizing documents or producing video clips; 'participation' involves engaging interactively and critically in new media environments, co-constructing ideas with awareness of socio-cultural values and power dynamics; and 'creation' is creating content with a critical understanding of embedded socio-cultural and ideological issues, requiring individual initiative (Lin et al., 2013: 165, 166.).

Lin et al.'s framework effectively outlines the practical skills necessary for engaging with new media, but it also highlights the need for balancing intuitive and analytical thinking. The duality of function and criticism they stress can be understood in this context. For example, the 'understanding' indicator is initially driven by Type1 processes, allowing rapid comprehension. This indicator risks falling into confirmation bias, where users might intuitively accept information that aligns with their preexisting beliefs. Type2 thinking is crucial here to engage in deeper, more analytical processing to avoid surface-level misunderstandings. On the other hand, when new media consumers engage in 'analysis,' they lean heavily on Type2 thinking, requiring deliberate and reflective deconstruction of new media content. However, cognitive traps like anchoring might occur if initial interpretations unduly influence the entire analysis.

Prosuming skills also require cognitive awareness. For example, distribution, which involves sharing, is inherently prone to heuristic triggers. Sharing content is frequently driven by heuristic triggers and emotional responses (Type1), such as social proof, where users share content based on popularity rather than accuracy. Type2 thinking is needed to reflect on the implications of sharing and ensure the content's credibility. When 'creating' new media content that reflects sociocultural awareness, consumers will rely on deep Type2 thinking. Framing bias can occur if users unconsciously present content that aligns with dominant cultural narratives without critical

reflection. Overcoming this requires deliberate effort to consider and incorporate alternative perspectives.

Given the cognitive challenges posed by new media, the importance of fostering a conscious awareness of one's thinking processes becomes apparent. Building on Chen et al. and Lin et al.'s frameworks for new media literacy, becoming a critical prosumer requires several layers of awareness, including recognizing the need to be an active participant in media-rich environments rather than a passive consumer, understanding that interpretations of new media content are subjective and constructed; not merely absorbed, recognizing that meaning is negotiated within a community which requires an openness to others' perspectives, being mindful of how personal values and beliefs are embedded in the content produced, critically evaluating language to ensure it effectively and accurately conveys intended beliefs and arguments (Chen et al., 2011: 86).

What Chen et al. and Lin et al. propose in their frameworks can be understood as metacognitive tools that guide individuals in becoming more aware of their cognitive processes as they engage with new media, particularly in prosuming. Metacognition—thinking about one's own thinking—is a critical component of both Type1 and Type2 cognitive processes. In the context of new media literacy, metacognition serves as a self-regulatory tool that allows individuals to monitor, assess, and adjust how they consume and engage with the content. This metacognitive approach strengthens analytical thinking, helping individuals navigate the complexities of new media with greater intentionality and discernment. In this aspect, new media literacy is a metacognitive tool itself. However, metacognition is not error-proof; therefore, it is essential to understand how it fits into a dual-process framework and a general critical thinking framework.

The concept of metacognition was introduced by John Flavell (Flavell, 1979: 906), who described it as the awareness and understanding of one's own cognitive processes (Green, 2019: 117). Metacognition allows individuals to recognize when they rely on intuitive judgments and when it might be necessary to engage in more deliberate, analytical thinking. This self-awareness is crucial for mitigating the influence of cognitive biases and improving the quality of decision-making in digital environments. In this vein, metacognition is directly linked to self-regulation or, in other words, reflection. Reflection is what John Dewey refers to as "a better way of thinking[...]the kind of thinking that consists in turning a subject over in the mind and giving it serious and consecutive consideration" (Dewey, 1933: 3). Therefore, reflection isn't just a random collection of thoughts; instead, it involves a logical progression where each idea builds on the previous one and contributes to the next. This continuous chain of ideas leads to deeper understanding and supports critical thinking. For Dewey, reflective thinking is an active and careful process of considering beliefs and knowledge in light of their supporting evidence and implications (Dewey, 1933: 4-9).

Dewey's term 'reflective thinking' was adapted and became known as 'critical thinking' in the context of the progressive education movement in the United States, particularly between the 1920s and 1950s (Ennis, 2011:6). Building on this foundation, Peter Facione, a key figure in critical thinking research and author of the influential Delphi Report, has made significant contributions by highlighting the importance of self-regulation in the thinking process. The Delphi Report, formally known as The Delphi Consensus on Critical Thinking, is a seminal document produced by a panel of experts led by Peter Facione in 1990. The report resulted from a comprehensive study conducted by 46 participants to define critical thinking and identify its essential components. It established a consensus on the cognitive skills (interpretation, analysis, evaluation, inference, explanation, self-regulation) and dispositions (such as inquisitiveness, open-mindedness, and flexibility) associated with critical thinking (Facione, 1990). Facione emphasizes that self-regulation is crucial for effective reasoning as it involves the

ongoing process of monitoring, reflecting on, and adjusting one's cognitive activities.:

> The experts define self-regulation to mean "self-consciously to monitor one's cognitive activities, the elements used in those activities, and the results educed, particularly by applying skills in analysis, and evaluation to one's own inferential judgments with a view toward questioning, confirming, validating, or correcting either one's reasoning or one's results." The two sub-skills here are self-examination and self-correction (Facione, 2020: 7).

Although Facione reserves from adopting the term 'metacognition' instead of self-regulation since it is more than metacognition, in the sense that metacognition may also be subjected to self-regulation (Facione, 2020), the term 'metacognition' has been widely accepted and become a fundamental component of critical thinking frameworks. While metacognition is also essential for new media literacy, allowing individuals to reflect on their cognitive processes, it is not without its pitfalls. The very mechanisms that enable self-monitoring and regulation can also mislead us. This can be effectively observed in the feeling of rightness in Evans' dual-process mental model.

The "Feeling of Rightness" (FOR) is a concept that refers to the intuitive confidence that accompanies a person's initial solution to a reasoning task. When someone solves a problem or makes a decision, they not only arrive at an answer but also experience a gut feeling or a sense of certainty that their answer is correct. This metacognitive experience—the FOR—can strongly influence whether they proceed to analyze further or question their initial solution. If the feeling is strong, they may not engage in deeper critical thinking or re-evaluation, potentially leading to overconfidence and overlooking errors. Essentially, FOR is the internal sense of 'this feels right,' which can sometimes prevent people from double-checking their reasoning (Wang & Thompson, 2019). In essence, FOR is a metacognitive tool and should bring clarity. Yet, it can be the cause of errors in reasoning and judgment. In Evans' mental model, the feeling of rightness aligns closely with the singularity and satisficing principles, where an initial, intuitive response is both singular and seemingly sufficient, leading to the cessation of further cognitive effort. The relevance principle explains how the cues leading to this response are perceived as relevant, reinforcing the initial confidence.

This misleading nature of metacognitive tools is especially relevant in new media literacy, where users often believe they are applying critical thinking but rely on outdated methods. The study Educating for Misunderstanding, conducted by Sam Wineburg and colleagues, aimed to assess how effectively college students evaluate digital sources (Wineburg et al., 2020). It involved 263 sophomores, juniors, and seniors at a large East Coast university. The students were given two tasks: evaluating a satirical "news story" and assessing the credibility of a non-partisan research website, which was actually run by a public relations firm with corporate ties. The study allowed students to use any online resources for their evaluations. The report finds out students often misjudge credibility based on superficial factors such as web design or domain type, mistaking these as signs of legitimacy. This error arises from students' misplaced confidence in their own evaluative strategies, like trusting that '.org' domains are inherently trustworthy and rejecting '.com' domains without adequately verifying the actual source of information. This false sense of confidence illustrates how metacognitive processes can fail if not paired with updated evaluative techniques. Wineburg et al. suggests lateral reading as part of the solution, which encourages users to engage in more reflective, Type2 thinking by cross-checking multiple sources and perspectives (2020). Without such skills, individuals may prematurely conclude that they've applied critical thinking when, in fact, they're trapped in biased or heuristic-based judgments. This highlights the importance of developing robust mindware to avoid the traps of misleading metacognition. In this vein, not metacognitive tools but metacognitive sensitivity will determine the outcome. Then, the question is, how does one enhance metacognitive sensitivity? The answer to this question can be found in a general critical thinking framework.

The Delphi Report suggests that for each cognitive skill—such as analysis, evaluation, or self-regulation—to be effectively applied, there must be a corresponding disposition that motivates its use (Facione, 1990). Therefore, Facione's ideal critical thinker has both cognitive skills and the attitudes necessary for effective reasoning:

> The ideal critical thinker is habitually inquisitive, well-informed, trustful of reason, open-minded, flexible, fair-minded in evaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry, and persistent in seeking results which are as precise as the subject and the circumstances of inquiry permit (Facione, 1990).

Without the correct disposition, the effectiveness of cognitive skills in critical thinking would be significantly diminished. Even if an individual possesses the technical ability to analyze, evaluate, or reason through a problem, a lack of disposition—such as open-mindedness, curiosity, or willingness to self-correct—can prevent these skills from being applied. Dispositions act as the driving force that ensures cognitive skills are not just theoretical abilities but are actively and appropriately employed in real-world situations.

In the context of new media literacy, the relationship between cognitive skills and dispositions is just as critical. While new media literacy equips individuals with the tools to access, analyze, and evaluate new media content, the correct dispositions—such as open-mindedness, curiosity, and self-regulation—are essential for these skills to be applied effectively. Thinking dispositions differ based on how people operate their reflective minds (Stanovich et al., 2013: 26). Without the disposition to question sources, challenge biases, or reflect on one's own interpretations, even a highly media-literate individual may fall prey to misinformation or cognitive biases. For example, someone might have the technical skills to evaluate the credibility of a media source, but if they lack the disposition to engage critically or are overly confident in their initial judgments, they might accept biased content uncritically (Bulger & Davison, 2018: 10). Therefore, new media literacy must foster both the skills and the right dispositions to ensure individuals not only understand media but also actively and thoughtfully engage with it.

Conclusion

This article explores how our cognitive architecture interacts with new media's dynamic and complex environment, employing a philosophical examination rooted in dual-process theories to understand our engagement with new media critically. From the outset, the article seeks to highlight the tension between the two modes of thinking—Type1 and Type2—and how the design of new media environments often exacerbates our reliance on Type1, fast, automatic, and heuristic-driven thinking. It is demonstrated that the structure of digital platforms, which prioritize speed, engagement, and simplicity, inherently favors cognitive shortcuts, leading to quick, intuitive judgments prone to biases.

The article's significant focus was Type2 thinking, which offers more deliberate, reflective, and analytical reasoning. It is emphasized that Type2 thinking is not only slower and more resource-intensive but also a crucial tool for critical thinking, particularly in evaluating the vast amount of information we encounter in new media. However, it has also been pointed out that engaging in Type 2 processes has its limitations. The cognitive load imposed by the information-rich environment of new media often makes sustained analytical engagement difficult. Furthermore, even when we engage in Type 2 thinking, it is not immune to biases, as it can be shaped by the very same mental models that guide our intuitive judgments. This suggests biases are not just a product of rapid, intuitive judgments but can also emerge from flawed analytical reasoning when we settle for 'good enough' solutions rather than deeply scrutinizing information.

A key section of the article was dedicated to metacognition and new media literacy, both of which have been positioned as vital components in resisting cognitive biases. Metacognition allows individuals to monitor and regulate their cognitive

processes, making it a powerful tool for avoiding automatic, uncritical thinking. On the other hand, new media literacy provides the framework for individuals to engage with media content critically, emphasizing the ability to evaluate, question, and analyze the information they consume. While constituting new media literacy as a metacognitive tool, it also explores the potential limitations of metacognition, highlighting that it can sometimes be misleading, as shown in studies where overconfidence in metacognitive judgments can lead to errors. This underlines the need for metacognitive sensitivity—an awareness not only of one's cognitive processes but also of the limitations and potential errors within those processes.

In linking this discussion to new media literacy, the article argues for a holistic philosophical perspective that goes beyond merely emphasizing criticality. While criticality in new media literacy is essential and aligns with analytical thinking, it is crucial to recognize that analytical reasoning is not always effective in producing optimal outcomes, and heuristic thinking is not inherently flawed, as demonstrated by dual-process theories. The current focus on criticality often overlooks that heuristics, while fast and automatic, can provide efficient and practical solutions, especially in environments that demand quick decisions. Heuristics are not the enemy; they become problematic only when misapplied or used inappropriately. Thus, new media literacy requires a broader, more holistic approach that integrates both heuristic and analytical thinking rather than prioritizing one over the other. This balanced approach is necessary to navigate new media environments that are constantly challenging our cognitive capacities.

These ideas have been linked to a broader critical thinking framework, mainly drawing from the Delphi Report, which emphasizes cognitive skills and thinking dispositions. It is noted that critical thinking is not just about applying analytical skills but also about fostering the right dispositions, such as open-mindedness, flexibility, and the willingness to self-correct. These dispositions are crucial for ensuring that cognitive skills are applied effectively, especially in new media's fast-paced and bias-prone environment. Even the most skilled critical thinkers may fall into cognitive traps without the right dispositions.

Cognitive biases serve as a prime demonstration of how the two types of thinking—intuitive (Type1) and analytical (Type2)—operate and interact in decision-making processes. Biases, like confirmation or belief bias, often arise when intuitive thinking dominates, allowing mental shortcuts to influence judgment without critical evaluation. However, relying exclusively on analytical (Type2) thinking doesn't guarantee an absence of bias either, as even deeper, deliberate reasoning can still be shaped by existing beliefs or assumptions. This reveals that favoring one type of thinking over the other isn't a foolproof strategy for critical thinking. Instead, effective critical thinking requires recognizing when each type of thinking is at play and understanding how they can influence reasoning, for better or worse. Overcoming cognitive biases involves a conscious effort to switch between intuitive and analytical thinking when appropriate, ensuring that both processes are harnessed to reflect more critically on information. This dual-process engagement strengthens one's ability to evaluate information objectively, leading to more robust and reliable conclusions.

Integrating dual-process theory with the study of new media offers a comprehensive framework for understanding the cognitive challenges of the digital age. By recognizing the interplay between intuitive and analytical thinking and how new media amplifies cognitive biases, we can develop strategies to improve critical thinking and decision-making in new media environments. While this study provides a theoretical framework linking dual-process theories to critical thinking and new media literacy, further research is necessary to validate these concepts empirically. Future studies could investigate the practical outcomes of media literacy training that incorporates both intuitive

and analytical thinking strategies and examine the impact of targeted interventions aimed at strengthening individuals' cognitive tools and strategies—collectively referred to as mindware—that help critical assessments in new media environments.

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Sezgi Tuzağı: Dijital Çağda Bilişsel Yanlılıkları Anlamak

Genişletilmiş Özet

Dijital çağda, sosyal medya platformlarından dijital haber kaynaklarına kadar yeni medya ortamları, bireylerin bilgi edinme, inanç oluşturma ve karar alma süreçlerinde merkezi bir rol oynamaktadır. Dijital medyanın sunduğu bu sınırsız bilgi akışı, yalnızca ulaştığımız veri miktarı üzerinde değil, aynı zamanda bu verileri nasıl işlediğimiz konusunda da belirleyicidir. Bu makale, Jonathan Evans ve Keith Stanovich tarafından ortaya konan ikili süreç teorileri ile Peter Facione'nin eleştirel düşünme tanımından yararlanarak, medya okuryazarlığına felsefi bir bakış açısı sunmayı hedefler. Amaç, yeni medyayla etkileşime girmenin analitik

bir yaklaşımdan daha fazlasını gerektirdiğini; sezgisel ve reflektif düşüncenin nasıl etkileşime girdiğine dair bir anlayışa sahip olmanın gereğini göstermektir. Hem yeni medya okuryazarlığının hem de eleştirel düşünmenin önemli bir bileşeni olan eleştirellik gerekli ancak, alışılageldiği haliyle, tek başına yetersiz bir unsur olarak çerçevelenmiştir. Tip 1 ve Tip 2 süreçlerin nasıl işlediğine dair bir anlayış olmaksızın, eleştirelliğin salt analitik bir çabaya dönüşme riski vardır ki bu da yeni medyayla etkileşimin merkezinde yer alan sezgisel sürecin rolünü göz ardı edecektir.

Makale, iki bilişsel süreç arasında ayrım yapan ikili süreç teorilerinin temelini özetleyerek başlamaktadır. İkili süreç teorisi, bilişsel süreçlerde iki ana tür olduğunu vurgular. Bunlardan ilki, hızlı ve sezgisel olan Tip 1 süreçlerdir. Diğeri ise, daha yavaş, analitik olan Tip 2 süreçleri içerir. Evans ve Stanovich'in fikirleri, bu iki düşünme sürecinin, kişilerin yeni medya ortamlarında dijital içerikle etkileşimlerinde nasıl ortaya çıktığını açıklığa kavuşturmak için kullanılmıştır. Yeni medya ortamında, içeriğin hızlı tüketildiği ve yüzeysel analizlerin sıkça yapıldığı bir ekosistemde, içerik genellikle kullanıcıların hızlı, anlık tepkiler vermesine yönelik olarak tasarlanır. Bu durumun hem eleştirel düşünme hem de medya okuryazarlığı açısından yarattığı zorluklar bilhassa bilişsel yanlılıklar üzerinden temellendirilmeye çalışılmıştır. Bilişsel yanlılıklar, sezgisel (Tip1) ve analitik (Tip2) düşünme türlerinin, düşünme ve karar alma süreçlerinde nasıl işlediğini ve birbirleriyle nasıl etkileşime girdiklerini gösterir. Bilişsel yanlılıklar, sezgisel düşünmenin ağır bastığı durumlarda bilhassa ortaya çıkar, ancak yalnızca analitik düşünceye güvenmek de bilişsel yanlılıklardan bağımsız olmayı garanti etmez. Bu durum, iki düşünme türü arasında bir denge kurmanın önemli olduğunu ve her birinin farklı koşullarda nasıl devreye girdiğini fark etmenin, eleştirel düşünme için kritik olduğunu ortaya koyar. Bilişsel yanlılıklar, hem sezgisel hem de analitik süreçleri kolaylıkla etkileme gücüne sahip olduğu ikili süreç perspektifi kullanılarak ortaya konmaya çalışılmıştır. Analitik düşünmenin, dijital içerikle eleştirel etkileşim için çok önemli olmasına rağmen, yeni medya ortamında önemli zorluklarla karşılaştığı savunulmaktadır. Bu zorluklar arasında bilginin ezici hızı, sürekli dikkat dağıtıcı unsurlar ve çoklu görevlerin getirdiği bilişsel yük yer almaktadır. Söz konusu zorluklar 'bilişsel cimrilik' bağlamında değerlendirilmiş, bireylerin daha zahmetli ve reflektif bir muhakeme yürütmek yerine nasıl sıklıkla zihinsel kestirmelere başvurdukları açıklanmıştır.

İkili süreç perspektifi, yeni medya okuryazarlığına, Chen vd. ile Lin vd.'nin yeni medya okuryazarlığı çerçeveleri kapsamında dahil edilmiştir. Eleştirelliğin medya okuryazarlığının merkezindeki belirleyici rolünü vurgulayan bu çerçeveler, yeni medya ortamında tüketim ile üretim arasındaki sürekliliğe vurgu yapmak yoluyla, medya katılımının sadece işlevsel yönlerini değil, aynı zamanda bireylerin medya üretimi ve tüketiminde gömülü olan güç dinamiklerinin farkında olarak medyayı analiz etmeleri için gereken eleştirel katılım ihtiyacını da vurgulamaktadır. Böylece, yeni medya okuryazarlığı bir metabilişsel araç olarak konumlandırılmıştır ve bu anlamda bireylerin ne zaman hızlı, sezgisel yargılara dayandıklarını ve ne zaman daha kasıtlı, reflektif bir yaklaşımın gerekli olduğunu fark etme becerisi geliştirmeleri gerektiği savunulmuştur. Bu bağlamda, yeni medya okuryazarlığının bireyleri yalnızca eleştirel katılım için gerekli araçlarla donatmakla kalmayıp, aynı zamanda bilişsel süreçlerinin (hem sezgisel hem de reflektif) medya içeriğini anlamalarını nasıl etkilediğine dair metabilişsel bir farkındalık geliştirmelerine yardımcı olması gerektiği savunulmaktadır.

Metabiliş -kişinin kendi düşüncesi hakkında düşünmesi- yanlılıkların muhakemeyi ne zaman etkiliyor olabileceğini fark etmek için gereklidir ancak metabilişin, özellikle bireylerin yargılarına aşırı güven duymalarına yol açtığında yanıltıcı olabileceği de makalede tartışılan hususlardan biridir. Bu nedenle metinde, özellikle Delphi Raporu bağlamında Peter Facione'nin çalışması, eleştirel düşünme çerçeveleri içinde öz düzenleme ve metabiliş ilişkisini açıklamak için vurgulanmıştır. Facione'nin öz-düzenlemeye yaptığı vurgu,

eleştirel düşünme becerilerine ilişkin daha geniş bir tartışmayla bağlantılıdır. Eleştirel düşünme, sadece bilişsel becerilerin değil, aynı zamanda açık fikirlilik, meraklılık ve esneklik gibi eğilimlerin varlığıyla mümkün olacaktır. Facione'nin genel eleştirel düşünme çerçevesi, söz konusu eğilimleri, zihin yazılımı kavramı içine yerleştiren ikili süreç teorileriyle birleştirilmiştir. Böylece yalnızca bilişsel beceriler değil, bilişsel eğilimlerin de yeni medya ile etkileşimde gerekli olan eleştirelliğe ulaşabilmek için ne derece önemli olduğu ortaya konmaya çalışılmıştır.

Makale, hem ikili süreç teorilerini hem de yeni medya okuryazarlığı çerçevelerini bir araya getirerek, yeni medyayla daha iyi etkileşim kurmak için eleştirellik ve medya okuryazarlığının nasıl entegre edilebileceğine dair bir bakış açısı sunmaktadır. Varılan sonuç, bireylerin dijital çağda gerçek anlamda medya okuryazarı olabilmeleri için hem sezgisel hem de reflektif düşünmenin nasıl işlediğinin farkında olmaları ve bu düşünme biçimleri arasında uygun şekilde geçiş yapabilecek bilişsel esnekliği geliştirmeleri gerektiğidir. Bu bilişsel esnekliği geliştirebilmenin yolu olarak hem metabilişsel hassasiyetin gelişmiş olması hem de bilişsel becerilere ek olarak zihinsel eğilimlerin de kişi de mevcut olması gerektiği sonucuna varılmıştır. İkili süreç teorileri ile genel eleştirel düşünme çerçevesinin kesişimi, yeni medya okuryazarlığına yönelik daha etkili bir yaklaşımın temelini oluşturur.

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Author details

1- (Sorumlu Yazar **Corresponding Author**) Dr., Ankara Hacı Bayram Veli Üniversitesi Edebiyat Fakültesi Felsefe Bölümü, cansu.akoglan@hbv.edu.tr.

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