

СЕРІЯ «ПСИХОЛОГІЯ»

UDC 159.954:159.955 + 004.89

[https://doi.org/10.52058/2786-4952-2025-3\(49\)-1060-1074](https://doi.org/10.52058/2786-4952-2025-3(49)-1060-1074)

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INTUITIVE DETERMINATION IN DECISION-MAKING: A COGNITIVE STYLE PERSPECTIVE

Abstract. Decision-making is a complex cognitive process influenced by both intuitive and analytical reasoning. Cognitive styles - characteristic ways individuals perceive, process, and use information - are crucial in determining whether decision-makers rely on intuition or deliberate analysis. This paper explores the interplay between cognitive styles and situational factors in decision-making strategies. The dual-process theory provides a framework for understanding how System 1 (fast, intuitive thinking) and System 2 (slow, analytical reasoning) interact in decision-making. Recent research highlights that individuals with impulsive, field-dependent, and abstract cognitive styles are more likely to rely on intuition.

In contrast, those with reflective, field-independent, and concrete styles tend to engage in structured analysis. However, situational factors such as task complexity, time pressure, and expertise can shift the balance between intuitive and analytical reasoning. While intuition enables rapid decision-making in high-pressure or uncertain environments, it can also lead to heuristic errors when lacking domain-specific expertise. This paper reviews key studies on cognitive styles, intuition, and decision-making, addressing their implications for education, leadership, and AI-assisted decision-making. Findings suggest that personalised learning strategies, metacognitive training, and adaptive decision-making models can enhance the effective use of intuition while mitigating biases. Additionally, as artificial intelligence increasingly integrates into decision-making processes, individuals

must learn to balance human intuition with AI-driven recommendations. Understanding the relationship between cognitive style and decision-making strategies is critical for optimising judgment, reducing biases, and improving problem-solving across diverse fields.

Keywords: cognitive style, intuition, decision-making, dual-process theory, expertise, metacognition, AI-assisted decisions, heuristic biases, problem-solving

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ІНТУЇТИВНА ДЕТЕРМІНОВАНІСТЬ ПРИЙНЯТТЯ РІШЕНЬ: РОЛЬ КОГНІТИВНИХ СТИЛІВ ТА СИТУАТИВНИХ ФАКТОРІВ

Анотація. Прийняття рішень – це складний когнітивний процес, що включає як інтуїтивне, так і аналітичне мислення. Когнітивні стилі – характерні способи сприйняття, обробки та використання інформації – відіграють ключову роль у визначенні того, чи буде ухвалене рішення на основі інтуїції чи раціонального аналізу. У цій статті досліджується взаємозв'язок між когнітивними стилями та ситуативними факторами у процесах прийняття рішень. Теорія подвійного процесу пояснює, як система 1 (швидке, інтуїтивне мислення) та система 2 (повільне, аналітичне мислення) взаємодіють під час прийняття рішень. Дослідження показують, що особи з імпульсивним, залежним від поля та абстрактним когнітивним стилем частіше покладаються на інтуїцію, тоді як рефлексивні, незалежні від поля та конкретно мислячі особи віддають перевагу структурованому аналізу. Однак такі ситуативні фактори, як складність завдання, часовий тиск та рівень експертизи, можуть змінювати баланс між інтуїтивним та аналітичним підходами. Інтуїція сприяє швидкому прийняттю рішень у стресових чи невизначених умовах, проте без належного досвіду може призводити до когнітивних помилок та евристичних упереджень. Ця стаття аналізує основні дослідження щодо когнітивних стилів, інтуїції та прийняття рішень, розглядаючи їх наслідки для освіти, лідерства та рішень на основі штучного інтелекту. Висновки вказують на необхідність персоналізованого навчання, метакогнітивного тренінгу та адаптивних моделей прийняття рішень, які допоможуть ефективно використовувати інтуїцію та зменшувати когнітивні

похибки. Оскільки штучний інтелект відіграє дедалі більшу роль у процесах ухвалення рішень, критично важливо знайти баланс між людською інтуїцією та рекомендаціями алгоритмів. Розуміння когнітивних стилів і стратегій прийняття рішень є необхідним для оптимізації суджень, зниження упереджень і покращення вирішення проблем у різних сферах.

Ключові слова: когнітивний стиль, інтуїція, прийняття рішень, теорія подвійного процесу, експертиза, метакогніція, рішення на основі ШІ, евристичні упередження, вирішення проблем.

Problem statement. Decision-making is a key cognitive skill that allows humans to adapt in complex situations, consider multiple options, and judge in uncertain situations. Traditional decision-making models have given much emphasis to rational thinking and reasoning. Still, there is a rising awareness about the role played by intuition in making judgments and choices (Kahneman, 2011). Intuition is rapid, subconscious pattern recognition and implicit recall of information, making human beings form decisions without explicit reasoning (Sicora et al., 2021) [11]. Cognitive style is a description of individual differences in information processing, thinking, and problem-solving, and it highly influences how much human beings use intuition compared to rational reasoning in decision-making (Basu & Dixit, 2022) [2]. Contemporary research portrays how cognitive style is paired with situation variables like task complexity, time pressure, and expertise to affect decision-making processes (Alaybek et al., 2022; Sassetti et al., 2022) [1, 10]. Intuitive decision-making is associated with being impulsive and highly field-dependent, while reflective and independent thinkers are predisposed towards rational reasoning. However, in highly experienced and expert domains, intuition can be a highly effective decision-making tool (Marques et al., 2022) [8]. The theory of decision-making as being based on two processes (System 1 and System 2) and formulated by Kahneman (2011) is a theory for explaining decision-making variations based on cognitive style and differentiating quick, intuition-based thinking and slow, reasoning-based thinking.

Growth in the application of artificial intelligence (AI) and data-based decision-making in organisational and professional domains has introduced complexity to intuition as well. It is being theorised in research that there is a necessity for human beings to walk a line in between personal intuition and advice based on AI, thereby creating obstacles in determining when and when not to use intuition (Chen et al., 2023; Vincent, 2021) [4]. Also, expertise is demanded for decision-making based on intuition to be as accurate as possible - while domain-based intuition can be created in experienced professionals, novice decision-making based on intuition is susceptible to cognitive distortion and inaccuracies (Bensley et al., 2022; Saltor et al., 2023) [3, 9].

With these complexities established, there is necessary to consider how cognitive style influences intuitive decision-making, how situation variables

influence use of intuition, and how decision-making can be optimized. The intention in this article is to provide a comprehensive review of recent research in cognitive style, intuition, and decision-making in an attempt to discuss implications for training, leadership, and education.

Analysis of recent studies and publications. A recent line of research is examining cognitive style and decision-making, in particular paying close scrutiny to intuition-analytical reasoning interplay. Basu and Dixit (2022) [2] center metacognition in decision-making style and argue cognitive awareness enhances intuitive decision-making and cognitive control fosters rational decision-making. The findings are in accord with Alaybek et al. (2022) [1], who in a meta-analysis report reflective cognitive style is positively associated with performance in tasks, and in complex and structured conditions in particular. Some research attends to situation variables and intuition. Sasseti et al. (2022) [10] discuss entrepreneurial decision-making and report rational cognitive style strengthens decision quality but intuition does not contribute substantially to improving decision-making in entrepreneurial conditions. Similarly, Verkuyten et al. (2022) [13] report time pressure influence on cognitive style preference, in which intuition-based decision-makers use intuition at a gut level and rational thinkers use intentional reasoning. In organizational context, Korherr et al. (2023) [6] discuss intuition-based vs. analytics-based decision-making transitions and place strong emphasis on data and AI in avoiding intuition-based bias.

Influence of expertise in intuition is another prominent trend in recent research. The way healthcare providers who have had extensive experience develop highly precise intuition and can effectively make sound decisions in crisis situations is explained by Marques et al. (2022) [8]. Bensley et al. (2022) [3] warn, on the other hand, that decision-making based on intuition is highly susceptible to misinformation and cognitive bias for novice decision-makers and thus attest to domain expertise as being central. Training is necessitated in human versus machine-based decision-making as discussed in how human intuition is balanced out by projections in AI, as explained in Chen et al. (2023) [4].

Purpose of the article. The primary objective of this article is to examine the relationship between cognitive style and intuitive determination in decision-making, with a focus on situational influences, expertise, and organizational implications.

Presentation of the main material. Individual cognitive style is key in determining how individuals proceed in making choices. Cognitive style influences how one receives information, explores alternative solutions, and thus makes a decision. Cognitive style research has established that there are different decision-making processes in different individuals and can be generalized in line with major cognitive dimensions. It is important to understand why some use intuition and why some use thorough analysis based on these distinctions.

Reflection and Impulsivity: The Role Played by Thinking in Decision-Making. One of the best-established dimensions for cognitive style is reflection-

impulsivity. The reflective style ponders decision-making in detail and considers each option before making a decision. The impulsive style makes rapid decisions without much conscious thought based on intuition. Basu and Dixit (2022) [2] research describes decision-making style in metacognition, and spontaneous and intuition-based decision-making is thought to be involved in cognition awareness and rational decision-making is thought to be involved in cognition regulation.

In decision-making, decision-makers who are impulsive have a leaning towards intuition-based decision-making since they are more likely to act on intuition than methodical thinking. According to the dual-process theory (Lunov, 2012), quick and automatic decision-making (System 1 thinking) is characteristic in decision-makers who are impulsive, while slow and methodical decision-making (System 2 thinking) is characteristic in reflective decision-makers. As much as decision-making based on heuristics is susceptible to making errors, decision-making based on heuristics is normally good in time-critical or pressure conditions. Field Dependence vs. Field Independence: Field-Dependent vs. Field-Independent Thinking. A second general cognitive style difference is in field dependence vs. independence. Field-dependent decision-makers apply external information and whole-part perception and are thus susceptible to depending on intuition in making a decision. Field-independent decision-makers, on the other hand, apply structured and methodical information processes and are thus able to detach from external information and apply more systematic thinking.

More recent studies by Hardiansyah et al. (2024) [5] on cognitive style in problem-solving validate these distinctions. Field-dependent thinkers struggle in handling problem-solving in an analytical manner but excel at thinking globally and are hence prone to making intuitive decisions. Field-independent thinkers excel at information structure, analyzing information in a critical manner, and making rational inferences.

Such insights are highly relevant in making complex choices, for example, scientific problem-solving, managing, and strategic planning. As asserted by Sinnaiah, Adam, and Mahadi (2023) [12], in strategic management, decision-making style can be a moderating force in organizational performance. Intuitive leaders are flexible and have a broader vision, while rational leaders are interested in making informed choices based on information and planned strategies.

Abstract vs. Concrete Thinking: The Role of Conceptualization in Intuition. A second major cognitive style is the abstract-concrete thinking style. Abstract thinkers conceptualize and generalize in thought and in doing so typically combine complex associations and patterns automatically. Consequently, they are leaning towards making intuitive decisions as they are based on implicit patterns and experience rather than overt information. Concrete thinkers are detail- and structure-based in thought and are consequently system-dependent in problem-solving.

Such a connection is supported in expert intuition theory in Dreyfus and Dreyfus (1986) in which expertise-based intuition is theorized as being based upon

being able to discern underlying generalizable patterns in complex decision-making cases. Quirk (2006) is in line in quoting metacognition as playing a central role in creating expert intuition in decision-making as a whole and in medical decision-making specifically.

In organizational context, Sulich, Sołoducho-Pelc, and Ferasso (2021) discuss how decision-making is interconnected with leadership style. Sulich, Sołoducho-Pelc, and Ferasso (2021) state that leaders who adopt abstract thinking style are inclined towards making use of intuition in decision-making, particularly in situations requiring vision-based leadership and vision for the future. Alternatively, leaders who adopt a concrete thinking style are inclined towards systematic decision-making and laying much emphasis on information and logical frameworks.

Trusting Intuition versus Deliberate Analysis: The Cognitive Style Interplay. The degree to which someone trusts intuition or uses deliberate analysis is greatly influenced by cognitive style. Intuitive decision-makers tend to use cognition knowledge, a metacognitive component that allows them to know about cognition (Basu & Dixit, 2022) [2]. On the other hand, those who use deliberate decision-making use regulation of cognition, in which they plan, monitor, and evaluate their decision-making processes actively.

Implications are extensive in scope and cover areas such as leadership, education, and commerce. In schools, for instance, cognitive style identification can be applied in making learning environments conducive to maximize intuition versus analysis. Field-dependent learners are suited in interactive and integrated learning, and structured and analytical learning is better for field-independent learners, as posited by Hardiansyah et al. (2024) [5].

Organizations in the corporate industry can improve leadership performance using cognitive style testing. Intuitive decision-makers are best for adaptability and innovative decision-making jobs, while rational decision-makers are best for information-based and processes-based jobs, as posited by Sinnaiah, Adam, and Mahadi (2023) [12].

Cognitive style is a good predictor for decision-making style and is indicative of making quick or reflective choices. The reflection-impulsivity factor is indicative of thinking versus rapid decision-making and the independence vs. dependence on information taken in from external sources. The abstract vs. concrete thinking factor is indicative of why some engage in conceptual intuition and some engage in structured analysis.

Finally, studying cognitive style is illuminating in terms of variations in individual decision-making. Educational, managerial, and strategic decision-making can be optimized when we can recognize and accommodate decision-making strategies for each individual cognitive style. More research must be committed to learning how metacognitive strategies can be applied to maximize intuition and analysis in decision-making and strike a balanced decision-making style to eliminate bias while making decision-making as efficient as possible.

The Role of Intuition in Decision-Making. Intuition is a subconscious cognitive process in which rapid decision-making occurs without apparent reasoning or logical thinking. It is rooted in implicit knowledge, drawn from experience, pattern recognition, and heuristics. Intuition performance is context-dependent as intuition can yield sound as much as fallible judgments. Intuition is often presented as being in direct opposition to rational decision-making, but recent research reveals intuition and rationality have a complex interrelationship than ever before assumed.

Theory of decision-making in terms of two processes, as formulated by Lunov (2012), argues decision-making is rooted in two distinct cognitive systems:

System 1 (Intuitive Processing) - Automatic, quick, and affect-based. It operates at a subconscious level and thus enables pattern recognition and quick decision-making. It is associated with cognitive style dimensions for impulsiveness, field dependency, and abstraction.

System 2 (Analytical Processing) is slow, methodical and logical. It is linked to conscious effort, careful thought and systematic reasoning. It is preferred by reflective, field-independent and concrete cognitive style thinkers.

Whereas quick decision-making is linked to System 1, it is also linked to cognitive bias and susceptibility to heuristics. Alternatively, System 2 is linked to objectivity and accuracy but is time and brain-intensive. Decision-makers are known to shift back and forth between modes and use reframing as a cognitive tool involving intuition and analysis intentionally (Luoma and Martela, 2021) [7].

Intuition is widely utilized in pressured and time-critical decision-making situations, for instance, in healthcare, business, and sports. Professionals in these professions develop domain-based intuition and consequently can perceive patterns and accurately predict outcomes. Intuition in professions-such as in social work-is utilized as a primary ingredient in decision-making and risk estimation and involves affective and tacit information, as theorized by Sicora et al. (2021) [11].

Even though intuition can be quick and efficient, it is not necessarily rational. The application of heuristics(mental shortcuts) may yield systematic errors and bias. The use of availability heuristic, for instance, causes us to overestimate chances based on how easily we can recall related events. The confirmation bias causes us to be predisposed towards information in line with previous assumptions and thereby causes us to opt for second-rate solutions. The application of analytics in decision-making is becoming widespread in businesses, and as Korherr et al. (2023) [6] posit, organizations need to shift away from intuition-based decision-making towards decision-making based on information at hand.

Artificial intelligence (AI) inclusion in decision-making processes questioned intuition in current problem-solving processes. Chen et al. (2023) [4] research involved examining how human intuition is balanced when combined with recommendations generated by AI in decision-making processes. As per findings, human beings are unable to discern when to override AI projections, leading to excessive and insufficient use of AI systems. Three modes of intuition influencing

human-AI collaboration have been identified as follows: 1) Intuition about outcome for a given task - Decision-makers have intuitions regarding whether or not an AI's prediction is in accord with expectation, 2) Intuition about features - Decision-makers have intuitions about how much explanation provided by AI is in accord with human reasoning, 3) Intuition about limitations in AI - Decision-makers have intuitions about when and why AI is supposed to be wrong in some context.

Such insights suggest that decision-making can be optimized but human intuition can't be completely replaced. The best strategies are hence hybrid in nature and incorporate the utilization of human judgement and AI (Vincent, 2021). Organisations are currently examining designing solutions that bridge human intuition and AI-based analytics in a manner in which decision-makers can utilize them for achieving balanced speed, accuracy, and context awareness.

Organizational decision-makers must apply a mixture of rational and intuitive strategies. As cited in Sinnaiah, Adam, and Mahadi (2023) [12], decision-making style moderates organizational performance and influences the quality of plan making and plan execution. The authors identify two leading decision-making styles:

- 1) Intuitive decision-making - Exhibits spontaneous and experience-based decision-making, best suited for fluid and unpredictable conditions,
- 2) Rational decision-making - Favors information analysis, structured reasoning, and systematic decision-making, best suited for settled and specified conditions.

More recent research is suggesting organizations must instill cognitive flexibility and require leaders to move between rational and intuitive decision-making based on the nature of the task. Luoma and Martela (2021) [7] introduce reframing as a tool in which assumptions are questioned on purpose and alternative solutions are experimented with. The method helps managers reconcile immediate, intuitive judgments and profound, analytical insights in decision-making for improved quality.

Since decision-making is double-edged in nature, there is a greater need for training decision-makers in cultivating intuition and avoiding bias. As Sicora et al. (2021) [11] state, training programs for decision-makers should be aimed at: 1) Encouraging metacognitive awareness - Helping decision-makers recognize when and when not to use intuition and when and when not to use analysis, 2) Fostering expertise-based intuition - Encouraging decision-makers to build domain expertise, making intuition-based decision-making more precise, and 3) Integrating AI and decision-aids - Training decision-makers in how to effectively utilize AI-based insights without being too technology-dependent.

With the cultivation of intuition and analysis, decision-making can be better in multiple circumstances.

Intuition is a rich but complex cognitive process in which human beings are able to quickly experience-based decision-making. Intuition is a central ingredient

in expert judgement, expert thinking, and expert decision-making but is vulnerable to heuristics and cognitive bias. Dual processes theory describes how there is competition for control between intuitive (System 1) and analytical (System 2) thinking and how good decision-makers need to be able to use both modes simultaneously.

During a period when decision-making is being redesigned in line with analytics and artificial intelligence, decision-makers and organizations must marry structured analysis and intuition when making decisions. The works of Chen et al. (2023) [4] and Vincent (2021) affirm hybrid decision-making frameworks in which human intuition is complemented by insights drawn out from artificial intelligence. Similarly, Korherr et al. (2023) [6] theorize slow movement towards decision-making informed by data but affirm adaptability in utilizing intuition when circumstances demand.

Future research should explore how metacognition and expertise can refine intuition in a manner in which it is a valuable tool rather than a source of cognitive bias. By enhancing intuition and designing decision-making processes involving experience-based judgement and rational reasoning, organizations and decision-makers can yield better, informed, and responsive choices.

Cognitive Style and Situational Influences on Intuition. Decision-making is not normally a routine process but is rather subject to cognitive style and situation. Cognitive style controls a general leaning towards intuition or systematic thought, but external conditions such as complexity, time pressure, and expertise can override and affect the style in use. The situation variables are paired with cognitive style in shaping how much intuition or systematic thinking is drawn upon in a situation.

With complexity in a task, there is more information to be processed, there are alternative considerations, and in certain instances, conditions of uncertainty. Cognitive style is key in determining if one is prone to intuition or analysis in handling complex circumstances.

Alaybek et al. (2022) [1] provide a meta-analytic synthesis of cognitive style and performance in the workplace. The research establishes reflective (rational) thinking style as positively related to performance in complex situations, wherein logical reasoning and problem-solving are required. Intuitive thinking style, though weaker performance indicators, is better in situations involving uncertainty and ambiguity, wherein past experience and pattern recognition enable quick decision-making.

In addition, decision-making in entrepreneurial situations has been researched by Sasseti, Cavaliere, and Lombardi (2022) [10] and they concluded rational cognitive style-based entrepreneurs excel in structured decision-making but intuition does little in supporting decision efficacy in entrepreneurial situations. It is thus clear intuition can be supportive in managing uncertainty but structured reasoning is still a better cognitive style for decision-making in complex situations.

But there are some jobs requiring a higher level of intuition in managing complexity. An example is healthcare professionals' decision-making in primary healthcare organizations, as studied by Marques et al. (2022) [8]. As they state, while rational cognitive style is linked to increased innovation and intrapreneurship, intuition in decision-making is still indispensable in rapid, high-risk medical cases, wherein past experience is crucial in discerning subtle trends and making rapid judgments.

Time pressure makes decision-makers resort to trusting in intuition as they don't have time for prolonged analysis. Decision-makers who have an impulsive cognitive style are inclined towards trusting in intuition, but decision-makers who have a reflective cognitive style find it more difficult to cope with time-pressured decision-making.

Meta-analysis in Alaybek et al. (2022) [1] supports this difference as it is confirmed that reflective decision-making is positively related to performance in everyday situations, but in time pressure situations, rational decision-makers are at a disadvantage and intuition sustains relatively steady performance. It can be concluded that intuition is a salient mechanism when rational reasoning is time-limited.

Verkuyten, Adelman, and Yogeewaran (2022) [13] have discussed how human beings reason in matters related to morality in time-pressured decision-making. Intuitive tolerance is caused, as per findings, by a spontaneous reaction overridden (or not) later on by rational thinking. Alternatively, there is deliberative tolerance, in which arguments for and arguments against a decision are extensively thought out and weighed, leading to a balanced and systematic decision. The research explains how time pressure influences cognitive style in making moral and ethical choices and establishes that spontaneous responses dominate when there is little time for thinking.

In corporate organizations, Korherr et al. (2023) [6] argue that organizations undertaking a transformation towards decision-making involving data must develop strategies for achieving a compromise between rapid, intuition-based decision-making and slow, analytics-based strategies. It is in this context that there is still a necessity for decision-making optimisation in time-constrained circumstances as organizations adopt artificial intelligence and big data analytics in procedures.

Among the key indicators as to if intuition is leading to right or wrong decision-making is expertise. Novices who act on intuition are prone to making mistakes and being subject to bias, but experts develop domain-based intuition and are able to discern patterns and detect outliers without having to go through conscious thought.

Bensley et al. (2022) [3] have examined skepticism and unsubstantiated generation of conspiracy theory acceptance and paranormal belief and cognitive style involved in them. It is concluded in research findings that there is increased conspiracy theory acceptance, paranormal belief, and fallacy in reasoning in

individuals who have an intuition cognitive style as they are prone to cognitive distortion. In contrast, rational thinkers are skeptical and adopt a scientific approach in evaluating information. It is thereby concluded that intuition is in error when there is no expertise and should not be relied upon without scrutiny, especially in evaluating novel or ambiguous information.

Despite this, in highly established domains, intuition is a precious asset. Saltor, Barberia, and Rodríguez-Ferreiro (2023) [9] explained how cognitive style contributes to susceptibility to fake news. From research, reflective thinkers would be able to discern fake news and actual information better, while intuitive thinkers would be more susceptible to fake news. That supports the theory that expertise makes intuition a better tool as expert individuals are able to eliminate deceptive trends and know good sources.

In strategic decision-making, Luoma and Martela (2021) [7] state that managers and leaders must synthesize intuition and analysis in a way to achieve best possible outcomes. They theorize about reframing in which leaders shift intentionally between intuition and analysis based on situation need. It is at this juncture that metacognitive awareness is emphasized in being able to know when to use intuition and when to use extensive analysis.

Influence of Cognitive Style and Situation

The cognitive style and situation influence play a key role in shaping the predominance of intuition or logical reasoning in decision-making.

Task Complexity – Field-dependent and abstract thinkers are much more likely to resort to intuition in highly complex or ambiguous situations as they are comfortable in invoking pattern-based and integrated insights. Field-independent thinkers, on the other hand, follow a systematic and logical style and are concerned about systematic analysis rather than intuition (Alaybek et al., 2022) [1].

Time Pressure – On strict time constraints, intuition is greatly depended upon by those who have an impulsive cognitive style, but in time-pressured decision-making requirements, a reflective cognitive style can be disadvantaged. However, expertise mitigates the risk of making a wrong decision as expert performers develop intuition based on experience, and this intuition is superior in time-pressured circumstances (Verkuyten et al., 2022) [13].

Experience and Competence – Intuition is fallible in beginning players but highly effective in experts. Experienced players are able to pick out regularities without being aware of them, leading to rapid and accurate decision-making. However, in domains in which deceptive information is prevalent, reflective thinkers have a vital advantage as they are immune to cognitive distortions and deception (Saltor et al., 2023) [9].

Whether or not to rely on intuition or logical thinking is not a cognitive style but is subject to circumstances as well. Task complexity, pressure for time, and expertise influence whether or not one employs rapid, intuition-based or slow, logical thinking. Intuitive decision-making is economical in certain circumstances but is ideal when experience is in place.

Understanding how cognitive style and external conditions relate can allow organizations and managers to maximize decision-making strategies. It would be worth examining in the future how metacognitive interventions can allow managers to bridge intuition and rational thinking and avoid situationally based influence resulting in bias and second-rate decision-making.

Implications for Decision-Making and Learning. The implications for decision-making and learning are far-reaching in education, leadership, and problem-solving when one understands the interrelationship between cognitive style and intuitive determination. It is possible for educators, leaders, and professionals to adopt strategies that maximize both intuition and analysis when they know how cognitive style affects decision-making inclinations.

Learning strategies suited to individual cognitive style can enrich learning in educational environments. Field-dependent learners, who are information processors who are interdependent in learning and use external sources for information, can thrive in interactive and experience-based learning environments. Field-dependent learners are best adapted in interactive learning in a group, discussion-based learning, and real-life problem-solving that builds intuition and pattern recognition.

Contrarily, structured and logical learning is appropriate for field-independent learners who are at ease in learning conditions being individual-based, logical in problem-solving, and systematic in reasoning (Hardiansyah et al., 2024) [5]. Field-independent learners are able to perform optimally in subject matters involving structured methodology, such as math, computer science, and engineering, in which intentional, logical problem-solving is central.

A recent line of research shows metacognitive training can allow students to discern when to follow intuition and when to engage in thorough analysis (Basu & Dixit, 2022) [2]. Instruction programs supporting critical thinking and adaptive decision-making can empower learners to adopt a balanced approach, thus making them improved problem-solvers in different situations.

Effective leadership is rooted in a fluid interplay between rational decision-making and intuition. On matters involving uncertainty and risks, leaders are compelled to resort to intuition in making rapid decisions based on experience and pattern recognition (Sinnaiah, Adam, & Mahadi, 2023) [12]. Intuition is not always good, though, especially in unusual or complex situations when heuristics and cognitive biases can yield second-rate decision-making.

Luoma and Martela (2021) [7] recommend reframing as a method for intentionally changing perception and testing assumptions as a way to improve decision-making at a strategic level. Cognitive flexibility is a skill leaders can develop in order to move between modes and use each style at peak performance. It is especially critical in business strategy, crisis leadership, and policy-making, in which quick but informed decision-making is demanded.

In addition, Korherr et al. (2023) [6] explain the rising trend in organizations towards decision-making based on information. Although intuition is still applied

extensively in decision-making for major enterprises, a shift towards decision-making based on analytics can improve corporate performance and risk governance. Decision-making leaders who can differentiate cognitive style can have better, reality-based decision-making and avoid relying on intuition alone.

Developing metacognitive awareness is key to enhancing decision-making abilities, particularly in cases when intuition and rational thinking are equally crucial. Training in metacognition allows one to:

- 1) Recognize when to use intuition and when rational thinking should be applied;
- 2) Increase domain expertise, thereby making intuition in complex decision-making more accurate;
- 3) Minimize cognitive distortions such as confirmation bias and availability heuristic when making intuitive decisions (Bensley et al., 2022) [3].

A research paper by Saltor, Barberia, and Rodríguez-Ferreiro (2023) [9] emphasizes the necessity for reflective thinking in evading cognitive bias and misinformation. The research confirmed that participants who possessed a cognitive style rooted in analysis had better ability to discern fake news and actual information compared to others. The implication is that training in active skepticism and reflective thinking can better enable human beings to build sound decision-making capacities in today's information-abundant but information-mistake-ridden society.

Mentoring and systematic practice are central in expertise-based intuition in expert professions. Experienced experts can automatically and accurately make choices without reflection since research indicates (Marques et al., 2022) [8]. Novices who act based on intuition are vulnerable to making wrong assumptions and, consequently, there is a need for systematic experience-generating strategies for developing intuition-based decision-making skill in time.

Conclusion. Intuitive decision-making is greatly influenced by cognitive style, which controls information processing and response. Intuition gives efficiency and speed but must be balanced with logical reasoning in order to avoid cognitive bias. Cognitive style and decision-making awareness can be improved at personal and organizational levels and can be applied in learning strategies and decision-making in organizations. Cognitive training should be researched in the future as a method for making best use of intuition in various domains and situations. The interface between cognitive style and situation is greatly applicable for learning, leadership, and professional decision-making. Individual learning strategies can be improved in engaging students as instructional strategies are aligned to personal cognitive style. In leadership and strategic thinking, cognitive style awareness can ensure better intuition-analysis balances, making decision-making flexible and efficient. Also, metacognitive training can be utilized in improving decision-making abilities in ensuring appropriate use of intuition and avoiding cognitive bias. Cognitive training should be researched in the future as a method for making best use of cognitive flexibility as a tool for managing complex decision-making situations in confidence and accuracy.

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