AVOIDING TRAPS IN GROUP DECISION-MAKING PROCESS

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Abstract: This article focuses on examining the group decision-making process and specifically the traps, pitfalls, challenges, and peculiarities of decision-making. The main purpose of scientific development is to present the problems and challenges in the decision-making process and to provide options and opportunities for monitoring and correcting the identified hazards. For this purpose, the concepts of decision and decision-making, models of the decision-making process, errors and traps, pitfalls in decision-making are presented, such as: information overload, analysis paralysis, different categories of heuristic, escalation of commitment, overconfidence bias, hindsight bias, anchoring bias, framing bias, errors and biases distorting perception and attribution, etc. Particular attention is paid to the problem of group decision making and its resolution. The article addresses cognitive biases, personal biases, and stereotypes in the group decision-making process.

The article has a scientific character and uses as a methodology a theoretical review of a variety of existing scientific literature, presents definitions, etymology, substantive analysis, content analysis and analysis of primary scientific metadata, examining the available scientific literature of the twentieth and twenty-first centuries.

Key words: group, decision-making, errors of perception and attribution, biases, cognitive deviations, stereotypes

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1. Introduction

The term "decision" is broad-based. In its most general form, it represents a choice between two or more alternatives. The decisions are

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the organizational mechanisms by which an attempt is made to achieve a desired state. They are an organizational response to a problem.

Decision making is a cognitive process resulting from choosing a course of action among several possible alternatives, which includes elements of individual, group, or organizational reasoning, assumptions, values, preferences, and beliefs, each of which can prompt action. Decision making is an activity that produces a solution that is considered optimal or at least satisfactory. Making a decision can be defined as an action or process of considering possible options and choosing one of them.

In cases where members of an organization must choose how to respond to new or emerging opportunities and problems, they are engaging in an unprogrammed decision-making process. Because the problem or opportunity has not been encountered before, members of the organization are unsure of how they should respond and therefore look for any information they can find to help them make a decision. Unique and important decisions require conscious thinking, information gathering and careful consideration of alternatives. These are called **unprogrammed solutions.** Despite the wide-ranging nature of the decisions, not all decisions have serious and profound consequences or even require a lot of thought. Organizational members also need to participate in programmed decision-making and respond to questions or problems that are routine or repetitive, so in these cases, to make a programmed decision, organizational members use a standard sequence of behaviours that follow routinely.

Several widely researched decision-making models have emerged in the scientific literature over the years of the evolution of decision-making research. The most famous of them are the classical decision-making model, the administrative decision-making model of James March and Herbert Simon, the model based on intuitive decision-making, the model based on innovative and creative thinking, the model of interactive and computer-based decision-making of decisions.

The classical **decision-making** model is a prescriptive model that describes how people should make decisions. This model is based on two ultimate

assumptions that are rarely realized, namely that the people have access to all the information they need to make a decision and make decisions by choosing the best possible response to a problem or opportunity. According to the classical model, if the group or organizational members follow predetermined steps, they will make optimal decisions. However, the classical decision-making model is an unrealistic model because of its assumption that decision-makers have all the information they need. In practice, individuals, group or organizational members always have a limited amount of information. In addition, our limited ability to process information makes it impossible to assimilate and understand all the information necessary for optimization, i.e. most people respond to a complex problem by reducing it to a level they can easily understand. Because the human mind cannot formulate and solve complex problems with complete rationality, we operate within the bounds of our bounded rationality. We construct simplified models that extract essential features from problems without capturing their full complexity. Then we can behave rationally within the limits of the simple model.² In contrast to the classical decision-making model, the administrative decision-making model of March and Simon is descriptive and explains how people actually make decisions in organizations. March and Simon emphasize that incomplete information and limited cognitive abilities of the decision maker affect decision making. Therefore, they said that the decision makers often chose satisfactory rather than optimal solutions.³

Perhaps the least rational way of making decisions is intuitive decision making, which is an unconscious process created by life experience. It occurs outside of conscious thought, relies on holistic associations or

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² Stephen, P. Robbins, Timothy A. Judge (2013). Organizational behavior 15th ed. Pearson Education Inc. Prentice Hall. ISBN-13: 978-0-13-283487-2 ISBN-10: 0-13-283487-1. http://www.mim.ac.mw > books > Organizational Behavior PDF, available 26.01.2023.

³ George, Jennifer M., Gareth R. Jones (2012). Understanding and Managing Organizational Behavior. Sixth edition. Copyright 2012, 2008, 2005, 2002 by Pearson Education, Inc. Prentice Hall. ISBN 10: 0-13-612443-7. ISBN 13: 978-0-13-612443-6.

connections between disparate pieces of information. It is a rapid and emotionally charged process and usually engages the emotions.¹ Although intuition is not rational, it is not necessarily wrong, nor does it always contradict rational analysis. The intuitive decision-making model arises as an alternative to other decision-making processes and often complements other decision-making models.

In addition to rational decision-making model, bounded rationality model, intuitive decision-making model, the innovative and creative decision-making is a vital part of effective decision-making process. **Creativity** is the generation of new, imaginative ideas. With the alignment of organizations and intense competition between themselves people and organizations are forced to be creative in solutions to generating new paths of doing their work in the best conceivable way. In response, making creative decisions and developing unique and novel responses to problems within the organization and those dictated by the environment is not only an option, but an imperative.

In the modern world, the sustainable use of the IT and Internet enables stable and dynamic planning and monitoring through efficient and reliable real-time data collection, processing and analysis, while the physical entities in the organizational headquarters are self-managing intelligent units performing activities according organizing, leading, monitoring, controlling in the decision-making process.²

2. Avoiding traps and pitfalls when making decisions

In the decision-making process, managers face various problems and constraints. Managers often face time constraints, which can make

¹ Stephen, P. Robbins, Timothy A. Judge (2013). Organizational behavior 15th ed. Pearson Education Inc. Prentice Hall. ISBN-13: 978-0-13-283487-2 ISBN-10: 0-13-283487-1. http://www.mim.ac.mw/books/Organizational Behavior PDF, available 26.01.2023.

² Andronie, Mihai; Lazaroiu, George; Stefanescu, Roxana; et. al, (2021). Artificial Intelligence-Based Decision-Making Algorithms, Internet of Things Sensing Networks, and Deep Learning-Assisted Smart Process Management in Cyber-Physical Production Systems. Electronics. ISSN 2079-9292.

effective decision-making a challenge. When there is little time available to gather information and process it rationally, we are much less likely to make a good unprogrammed decision. Furthermore, managers often make decisions under conditions of uncertainty. They cannot know the outcome of each alternative until they actually choose that alternative. A quick, intuitive route can be a lifesaver. When we suddenly feel intense fear, the fight-or-flight response is triggered, leading to immediate action without methodically weighing all possible options and their consequences. However, the fast track is not always the best route to decision making. When faced with new and complex situations, it is better to process available information logically, analytically and methodically. Therefore, effective decision-making relies on both logic and emotion.¹

Another problem in decision making is information overload. Information used in decision-making aims to reduce or eliminate uncertainty.² However, information overload affects task and task processing, which affects decision making. George Miller suggested that decision-making in humans was hindered because the human brain could only hold a limited amount of information.³ Hall and colleagues describe the so-called "knowledge illusion", which means that because we are confronted with too much knowledge, it can interfere with our own ability to make rational decisions.⁴

¹ Davidson, Alice Ware; Bar-Yam, Yaneer (2006) [2000]. Environmental complexity: information for human – environment well-being. In Bar-Yam, Yaneer; Minai, Ali (eds.). Unifying themes in complex systems. Berlin; New York: Springer. pp. 157–168. CiteSeerX 10.1.1.33.7118. doi:10.1007/978-3-540-35866-4 16. ISBN 9783540358640.

² Duncan, R. (1972). Characteristics of organizational environments and perceived environment uncertainty. Administrative Science Quarterly. 17 (3): 313–27. doi:10.2307/2392145. JSTOR 2392145.

³ Miller, George A. (1956). The magical number seven, plus or minus two: some limits on our capacity for processing information. Psychological Review. 63 (2): 81–97. doi:10.1037/h0043158. ISSN 1939-1471. PMID 13310704.

⁴ Hall, Crystal C.; Ariss, Lynn; Todorov, Alexander (2007). The illusion of knowledge: when more information reduces accuracy and increases confidence (PDF). Organizational Behavior and Human Decision Processes. 103 (2): 277–290. doi: 10.1016/j.obhdp.2007.01.003.

In cases where an individual or group is not able to go through the series of steps to solve problems, they can fall into a state of so-called "analysis paralysis". The main causes of analysis paralysis are the overwhelming flow of incoming information or the tendency to overanalyse a situation. Three different types of analysis paralysis exist:¹

- process analysis paralysis an individual or group is unable to make a decision because they start reviewing information over and over for fear of making the wrong decision;
- paralysis of the precision of the decision the decision makers find new questions and information in the analysis and this makes them explore additional options instead of quickly and adequately making a decision;
- risk uncertainty paralysis this paralysis occurs when the decision maker wants to eliminate all uncertainty, but verification of the information does not provide such an opportunity.

People who make decisions over an extended period of time begin to lose the mental energy. In this case, decision fatigue is present. Impulsive decision making and decision avoidance are two possible escape routes from decision fatigue. Impulsive decisions are made more often when a person is tired of analysing situations where the decision being made is to act rather than think, while decision avoidance is the situation where a person never makes a decision.²

Judgment or the use of intelligence is important in all aspects of decision making, but here we must question the judgment of the person making the decision. Research shows that people are prone to errors, using biases that often interfere with the quality of decision-making. George and Gareth argue that the main sources of decision-making errors arise

McSweeney, Alan (2019). Stopping Analysis Paralysis and Decision Avoidance in Business Analysis and Solution Design. doi:10.13140/RG.2.2.21841.38243. https://www.researchgate.net/publication/333247807_Stopping_Analysis_Paralysis_And_Decision_Avoidance_In_Business_Analysis_And_Solution_Design, available 11.04.2024.

Roberts, Lon (2010). Analysis paralysis: a case of terminology inaccuracy Defense AT&L. pp. 21–22.

from the ordinary rules or heuristics that people use to make decisions and from people's tendency to continue engaging in unproductive, unsatisfying activities without rational reason.¹

Given the number and complexity of decisions that people must make, it is not surprising that they try to simplify decision making by using shortcuts or rules of thumb known as **heuristics**. Heuristics can improve the decision-making process because they make it easier for people to do the best choice of action, but they can also lead to *biases* – so-called systematic errors that lower the quality of decision-making.²

It could be distinguished three categories of heuristics – heuristic of availability, heuristic of representativeness and heuristic of anchoring and adjusting, each of which creates biases in judgment. The availability **heuristic indicates** the tendency for people to base their judgments on information that is readily available to them. Events that evoke emotions that are particularly vivid or happened recently tend to be more accessible in our memory. This heuristic reflects the tendency to judge the frequency of an event and its causes by how those events are easy to remember and how accessible they are from human memory. When using the representativeness heuristic in decision making, people tend to estimate the likelihood of an event by trying to match it to a pre-existing category. This heuristic represents the tendency to predict the likelihood that an event will occur in the future because it is similar or representative of events that already have occurred in the past. The anchor-and-adjust heuristic involves evaluating an event by taking an initial value from historical precedent or an external source and then incrementally adjusting that value to make a running estimate.3

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³ White, Jefferson (2018). Organization and Organizational Behaviour. Studocu.com. https://www.studocu.com/en-us/document/california-state-university-chico/seminar-in-organizational-behavior/bca-629-ob-lecture-notes-1-3/3990404, available 15.01 .2023.

Although in our professional and personal daily life we use heuristics as a way to make a decision we should be aware that a heuristic is a decision-making procedure without determining the consequences of each option. Heuristics reduce the amount of evaluative thinking required for decisions by focusing on some aspects of the decision while ignoring others.¹

Another source of decision-making errors is **commitment escalation**. **It is** the tendency of decision makers to invest extra effort, time and money in bad decisions or unproductive courses of action. A typical escalation of commitment scenario is – the decision maker initially makes a decision that leads to a course of action that results in a loss or negative outcome. However, instead of changing the course of action, the decision maker decides to exert more effort, invest more time and money in pursuing it to success, resulting in additional losses from following an inappropriate and inadequate course of action.²

Kahneman and Tversky spent decades studying how people make decisions. They had found that people are affected by overconfidence bias, hindsight bias, anchoring bias, framing bias and commitment escalation which they explained and clarified as follows:³

- **overconfidence** occurs when people overestimate their ability to predict future events;
- hindsight bias occurs when people look back in time and mistakes seem obvious after they have already happened, i.e. after a surprising event has happened, many people probably think they already knew the event was going to happen;

¹ Roe RM, Busemeyer JR, Townsend JT (2001). Multialternative decision field theory: A dynamic connectionst model of decision making. Psychological Review. 108 (2): 370–392. doi:10.1037/0033-295X.108.2.370. PMID 11381834.

² George, Jennifer M., Gareth R. Jones (2012). Understanding and Managing Organizational Behavior. Sixth edition. Copyright 2012, 2008, 2005, 2002 by Pearson Education, Inc. Prentice Hall. ISBN 10: 0-13-612443-7. ISBN 13: 978-0-13-612443-6.

³ Bauer, Talya, Berrin Erdogan (2012). An Introduction that Organizational Behavior. Creative Commons by-nc-sa 3.0. http://creativecommons.org/licenses/by-nc-sa/ 3.0/. https://2012books.lardbucket.org > pdfs > an-introduction, available 18.11.2022.

- anchoring refers to the tendency for people to over rely on a single piece of information, whereby one becomes fixated on initial information and fails to adequately adapt to subsequent information;
- **framing** refers to the tendency of decision makers to be influenced by the way a given situation or problem is pre-presented;
- escalation of commitment occurs when individuals continue to pursue an unsuccessful course of action even though it becomes clear that it is a bad course to follow.

Another trap in decision making is the confirmation trap, namely – the tendency to seek confirmation of what is already believed to be true and not to seek disconfirming information. In that situation the decision maker ignores opportunities to recognize or find disconfirming information.¹

One of the most interesting findings of attribution research is that errors or biases distort perception, i.e. human attribution. When we make judgments about other people's behaviour, we tend to underestimate the influence of external factors and overestimate the influence of internal or personal factors. This is the so-called fundamental error of attribution. Individuals and organizations also tend to attribute their own successes to internal factors such as ability or effort, while blaming failure on external factors such as bad luck or unproductive colleagues.

People tend to attribute ambiguous information as relatively flattering and accept positive feedback while rejecting negative feedback. This problem is recognized as a self-serving bias.²

Because humans cannot observe everything that happens around them, they are engaged in selective perception. Since the humans cannot

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Schermerhorn, John R., Jr. James G. Hunt, Richard N. Osborn (2002). Organizational behavior 7th edition. Copyright John Wiley & Sons, Inc. Printed in the United States of America. ISBN 0-471-22819-2 (ebook). http://dspace.vnbrims.org > jspui > bitstream > Organizational behavior, available 31.01.2023.

Stephen, P. Robbins, Timothy A. Judge (2013). Organizational behavior 15th ed. Pearson Education Inc. Prentice Hall. ISBN-13: 978-0-13-283487-2 ISBN-10: 0-13-283487-1. http://www.mim.ac.mw/books/Organizational Behavior PDF, available 26.01.2023.

assimilate everything that they observe, humans take information in bits and pieces. But humans do not choose randomly, rather they choose according to their interests, backgrounds, experiences and attitudes.

When we form an impression of an individual based on one characteristic, such as intelligence, sociability, or appearance, then a halo effect manifests itself. The halo effect was confirmed in a classic scientific study in which subjects were given a list of human's traits such as intelligent, dexterous, practical, hard-working, determined, and warmhearted and asked to rate the person to whom these traits applied. The subjects of the scientific experiment rated the person as wise, humorous, popular and resourceful but when the same list is modified to include cold instead of warm traits, a completely different picture emerges. It is clear that the subjects allow a single trait to influence their overall impression of the person they are judging.¹

A contrast effect occurs when the evaluation of an individua's characteristics is influenced by comparisons with other people who are ranked higher or lower than the individual on the compared characteristics.²

People try to confirm their perceptions of reality, even when their perceptions are wrong. The terms self-fulfilling prophecy and the Pygmalion Effect describe how an individual's behaviour is determined by the expectations of others. A typical situation in an organization that demonstrates this effect is that if a manager expects great things from people, they are unlikely to disappoint their superior. Likewise, if a manager expects only minimal performance, the subordinates are likely to meet those low expectations.

An important problem in group decision-making, identified by social psychologist Irving Janis, is groupthink, namely the tendency of

² Stephen, P. Robbins, Timothy A. Judge (2013). Organizational behavior 15th ed. Pearson Education Inc. Prentice Hall. ISBN-13: 978-0-13-283487-2 ISBN-10: 0-13-283487-1. http://www.mim.ac.mw > books > Organizational Behavior PDF, available 26.01.2023.

¹ Stephen, P. Robbins, Timothy A. Judge (2013). Organizational behavior 15th ed. Pearson Education Inc. Prentice Hall. ISBN-13: 978-0-13-283487-2 ISBN-10: 0-13-283487-1. http://www.mim.ac.mw/books/Organizational Behavior PDF, available 26.01.2023.

members in highly cohesive groups to lose their capacity for critical evaluation. Janis coined the term *groupthink* in 1972 to describe a paradox he observed in the group decision-making process. He observed that sometimes groups of highly skilled and experienced individuals made very bad decisions, and those involved in the decision making who are influenced by groupthink were often shocked that they participated in making such a bad decision. Irving Janis' research on groupthink focuses primarily on government decisions.

Irving Janis believed that because tightly knit groups demand conformity, their members tend to be reluctant to criticize each other's ideas and suggestions. A desire to keep the group together and avoid unpleasant disagreements lead to an overemphasis on agreement and an underemphasis on critical discussion. Janis suggests that groupthink played a role in the lack of preparedness of US forces at Pearl Harbor in World War II, US decision-making during the Vietnam War, and with the Space Shuttle Challenger disaster. When groupthink occurs, members of a cohesive group are often willing to unanimously support a decision favoured by the group leader without carefully weighing its pros and cons. This unanimous support is based on members' exaggerated beliefs about the capabilities and moral status of the group. The group members believe that the group is more powerful than it really is, and as a result, the group may ignore important information.²

In *Victims of Groupthink*, Janis explains that groupthink is characterized by eight symptoms:³

Schermerhorn, John R., Jr. James G. Hunt, Richard N. Osborn (2002). Organizational behavior 7th edition. Copyright John Wiley & Sons, Inc. Printed in the United States of America. ISBN 0-471-22819-2 (ebook). http://dspace.vnbrims.org > jspui > bitstream > Organizational behavior, available 31.01.2023.

² George, Jennifer M., Gareth R. Jones (2012). Understanding and Managing Organizational Behavior. Sixth edition. Copyright 2012, 2008, 2005, 2002 by Pearson Education, Inc. Prentice Hall. ISBN 10: 0-13-612443-7. ISBN 13: 978-0-13-612443-6.

³ Paul't Hart (1991). Irving L. Janis' Victims of Groupthink. Political Psychology, 12(2), pp. 247–278. https://doi.org/10.2307/3791464. https://www.jstor.org/stable/3791464, available 29.05.2023.

- The illusion of invulnerability is shared by most or all members of the group, which creates excessive optimism and encourages them to take extreme risks.
- 2. Collective rationalizations occur and members downplay negative information or warnings that might cause them to revise their assumptions.
- 3. An unquestioning belief in the inherent morality of the group arises, which may lead members to ignore the ethical or moral consequences of their actions.
- 4. Stereotyped views of outgroups are observed.
- 5. Direct pressure is exerted on any members who express strong arguments against any of the group's stereotypes, illusions, or commitments.
- 6. Self-censorship occurs, where group members themselves minimize or ignore their own doubts and counterarguments.
- 7. Illusions of unanimity arise, based on self-censorship and direct pressure.
- 8. Self-appointed "mind-guards" occur when one or more members protect the group from information that contradicts the group's assumptions and course of action.

The groups dominated by groupthink are characterized by a strong pressure for uniformity, which causes their members to avoid raising controversial issues and to question apparently weak arguments. Thus, in crisis situations, it is especially important to use techniques such as devil's advocacy, which requires the generation of a crisis response plan and subsequent critical analysis of the plan. A **devil**'s advocate is a man who is ready to stand up and question the plans of more powerful people that he or she thinks are wrong and who can convince others why the plans presented are wrong¹. Whenever a group meets, the group

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leader assigns one or two members to play the role of **devil's advocate**, i.e. to criticize, raise objections and identify potential problems with all decisions the group makes.

Diffusion of responsibility can also be a disadvantage if group members do not take the necessary time and effort to make a good decision because they are not personally responsible. This consequence is related to the concept of social slack, which describes the tendency for individuals to exert less effort when working in a group. Another consequence of group decision making is that groups tend to make more extreme decisions than individuals tend to make on their own. The tendency is called group polarization.

3. Cognitive biases, personal biases and stereotypes in decision-making

In the process of making management decisions, it is necessary to take into account some individual moments that may appear as an obstacle to effective decision-making. It is the cognitive biases and personal biases that can create serious difficulties and skew the process in a different direction.

Our decision making is limited by our own biases. We tend to feel more comfortable with ideas, concepts, things and people that are familiar or similar to us. It can be incredibly difficult to overcome our biases because of the way human brain works. The human brain is excellent at organizing information into categories and does not like to expend effort in rearranging once the categories are established. As a result, humans tend to pay more attention to information that confirms their existing beliefs and less attention to information that contradicts their beliefs, a flaw called confirmation bias. Confirmation bias is a specific case of selective perception: people seek out information that confirms their past choices and reject information that contradicts them. People also tend to accept at face value information that confirms their preconceptions, while being critical and sceptical of information that

challenges them. Therefore, the information people gather is usually biased toward supporting views they already hold. People even tend to seek out sources that are most likely to tell others what they want to hear.¹

Availability bias is a tendency to base judgments on information that is available. Events that evoke emotions and that are particularly vivid or more recent tend to be more accessible in people's memory, causing them to overestimate the chances of unlikely events.²

A tendency to believe that we can predict the outcome of random events is referred to as the randomness error. Decision-making suffers when people try to make sense of random events, especially when they turn imagined patterns into superstitions.³

In fact, people don't like their existing beliefs to be challenged. Such challenges feel like a threat, which tends to push our brains into the reactive system and prevent us from being able to logically process new information through the reflective system. It is difficult to change people's minds about something if they are already confident in their beliefs. The reverse is also true; if people don't like someone, they will focus on the negatives and ignore or dismiss others' positives.⁴

We can deduce and summarize that the most common humans' cognitive biases are:⁵

Stephen, P. Robbins, Timothy A. Judge (2013). Organizational behavior 15th ed. Pearson Education Inc. Prentice Hall. ISBN-13: 978-0-13-283487-2 ISBN-10: 0-13-283487-1. http://www.mim.ac.mw/books/Organizational Behavior PDF, available 26.01.2023.

¹ Stephen, P. Robbins, Timothy A. Judge (2013). Organizational behavior 15th ed. Pearson Education Inc. Prentice Hall. ISBN-13: 978-0-13-283487-2 ISBN-10: 0-13-283487-1. http://www.mim.ac.mw/books/Organizational Behavior PDF, available 26.01.2023.

³ Stephen, P. Robbins, Timothy A. Judge (2013). Organizational behavior 15th ed. Pearson Education Inc. Prentice Hall. ISBN-13: 978-0-13-283487-2 ISBN-10: 0-13-283487-1. http://www.mim.ac.mw>books>Organizational Behavior PDF, available 26.01.2023.

⁴ Rice University (2019). Organizational Behavior. OpenStax. Rice University. https://openstax.org/details/books/organizational-behavior, available 27.01.2023.

⁵ Blackhart, GC, & Kline, JP, Individual differences in anterior EEG asymmetry between high and low defensive individuals during a rumination / distraction task, Personality and Individual Differences, 39, 2005, pp. 427–437.

- selective acceptance of events people tend to agree with facts that support some of their conclusions and views and ignore facts that support different conclusions and views from their own;
- premature termination of the search for evidence people tend to accept the first alternative offered to them;
- cognitive inertia –people's reluctance to change the mental models they have built and used in the past, even though they are in a situation of new circumstances;
- selective perception individuals perceive what they think is important and exclude information they consider unimportant;
- excessive optimism individuals tend to imagine events in a positive light and this can distort the truth of their perception and way of thinking, as well as vice versa;
- novelty bias people tend to pay more attention to newer information and ignore and forget older information;
- repetition bias the desire to believe what is said most often and has been confirmed by the most diverse sources;
- anchoring and evaluation individuals' decisions are unduly influenced by initial information that shapes their position on the subsequent decision;
- group thinking manifested in the pressure to follow the opinion of others;
- source of trust bias people reject a given statement, information or idea if they have a formed opinion about a person, organization or group to which the sender of the information belongs;
- attribution asymmetry people tend to attribute their success to their own abilities and talents, but their failure to bad luck and external factors, and at the same time they are critical of others and attribute others' success to luck and their failure to the result of their errors.
- underestimating uncertainty and creating an illusion of control individuals underestimate future uncertainty because they believe they have more control over events than they actually have;

• influence of emotion – often individuals make their decisions under the influence of emotions, which help to form future possibilities of behaviour, depending on whether the results will be advantageous or disadvantageous.

The term "stereotype" is derived from the Greek words " $\sigma\tau\epsilon\varrho\epsilon\dot{o}\varsigma$ ", meaning "a firm, a solid" and " $\tau\dot{v}$ $\pi o\varsigma$ " – "an impression, a solid impression of one or more ideas". The meaning "an image perpetuated without change" was first recorded in 1850. The meaning "a preconceived and oversimplified notion of characteristics of a person or group" dates from 1922 (Lippmann in Public Opinion). The term was first used in the modern psychological sense by Walter Lippmann.¹

A stereotype is a generally imposed belief about a certain category of people.² This is an expectation that people can have for any person in a certain group. A stereotype is any thought held about specific individuals or certain behaviours intended to represent the entire group of those individuals or behaviours as a whole³, bearing in mind that these thoughts or beliefs may not accurately reflect reality. A stereotype is something conforming to a fixed or common pattern, esp: a standardized mental picture that is shared by members of a group and represents an oversimplified opinion, prejudiced attitude, or uncritical judgment.⁴ Stereotypes are a form of categorization that helps simplify and systematize information. In this way, information is more easily identified, recalled, predicted and responded to.⁵

¹ Online Etymology Dictionary (2001-2024). Stereotype. Douglas Harper. https://www.etymonline.com/word/stereotype, available 20.05.2024.

² Cardwell, Mike (1999). Dictionary of psychology. Chicago Fitzroy Dearborn. ISBN 978-1579580643.

McGarty, Craig; Yzerbyt, Vincent Y.; Spears, Russel (2002). Social, cultural and cognitive factors in stereotype formation. Stereotypes as explanations: The formation of meaningful beliefs about social groups. Cambridge: Cambridge University Press. pp. 1–15. ISBN 978-0-521-80047-1.

⁴ Merriam Webster Dictionary (2024). Stereotype. Merriam-Webster, Incorporated. https://www.merriam-webster.com/dictionary/stereotype, available 20.05.2024.

⁵ Tajfel, Henri (1981). Social stereotypes and social groups. In Turner, John C.; Giles, Howard (eds.). Intergroup behavior. Oxford: Blackwell. pp. 144–167. ISBN 978-0-631-11711-7.

One explanation for why stereotypes are shared is that they are the result of a common environment that encourages people to react in the same way. According to another explanation, people are socialized to adopt the same stereotypes. Some psychologists believe that although stereotypes can be learned at any age, they are usually acquired in early childhood through the influence of parents, teachers, peers and the media. According to a third explanation, shared stereotypes are caused neither by matching common stimuli nor by socialization. This explanation argues that stereotypes are shared because group members are motivated to behave in certain ways and stereotypes reflect that behaviour. It is important to note from this point of view that stereotypes are a consequence, not a cause, of intergroup relations.

Stereotypes make people expect certain actions from members of social groups. These stereotype-based expectations can lead to self-fulfilling prophecies in which inaccurate expectations about a person's behaviour, through social interaction, prompt that person to act in stereotype-consistent ways, thereby confirming their false expectations and validating the stereotype. The danger of stereotyping lies not in its existence, but in the fact that it encourages the wrong interpretation of phenomena and events.

Stereotypes are: "Men are not interested in childcare", "Older workers cannot learn new skills", "Women are not good leaders", etc. A growing - body of research shows that stereotypes operate emotionally and often below the level of conscious awareness, making them particularly difficult to challenge and change.³ The possible damaging effects of stereotyping are:¹

McGarty, Craig; Yzerbyt, Vincent Y.; Spears, Russell (2002). Social, cultural and cognitive factors in stereotype formation. Stereotypes as explanations: The formation of meaningful beliefs about social groups. Cambridge: Cambridge University Press. pp. 1–15. ISBN 978-0-521-80047-1.

² McGarty, Craig; Yzerbyt, Vincent Y.; Spears, Russell (2002). Social, cultural and cognitive factors in stereotype formation. Stereotypes as explanations: The formation of meaningful beliefs about social groups. Cambridge: Cambridge University Press. pp. 1–15. ISBN 978-0-521-80047-1.

³ Stephen, P. Robbins, Timothy A. Judge (2013). Organizational behavior 15th ed. Pearson Education Inc. Prentice Hall. ISBN-13: 978-0-13-283487-2 ISBN-10: 0-13-283487-1. http://www.mim.ac.mw/books/Organizational Behavior PDF, available 26.01.2023.

- substantiation of unfounded prejudice or ignorance;
- reluctance to rethink one's attitudes and behaviour;
- preventing people from stereotyped groups from entering or succeeding in certain activities or fields.

People should be trained to activate counterstereotypic information and thus reduce the automatic activation of negative stereotypes, which will be useful not only in the process of perception, attribution and learning new useful habits, but will also contribute to improving the process of taking of solutions.

With the evolution of management science and practice, various techniques have been developed to help groups make good decisions that promote high levels of performance and positive attitudes and avoid some of the potential drawbacks of group decision making. In many situations, groups are expected to provide creative or imaginative solutions to organizational problems. Some of these methods are: the brainstorming method; nominal group technique; the Delphi method; dotmocracy; decision trees; solution through lack of response; decision making from positions of power; minority rule; majority rule; consensus decision; unanimous decision; test of general decision-making style and others.

Undoubtedly, cybernetics is a pioneer in this direction, in which management decisions are made with the help of mathematical methods and models, statistical methods and models, operations management methods, IT methods. The perception of a variety of Internet-enabled IT devices and the attitudes associated with the subsequent use of information technology have led to the rise of data-driven systems supported by cutting-edge developments and expectations for innovative approaches to decision-making.²

Ox, William TL; Abramson, Lyn Y.; Devine, Patricia G.; Hollon, Steven D. (2012). Stereotypes, Prejudice, and Depression: The Integrated Perspective. Perspectives on Psychological Science. 7 (5): 427–449. doi:10.1177/1745691612455204. PMID 26168502. S2CID 1512121. Archived from the original (PDF) on 3 December 2013.

² Andronie, Mihai; Lazaroiu, George; Stefanescu, Roxana; et al. (2021). Neuromanagement decision-making and cognitive algorithmic processes in the technological adoption of mobile commerce apps. Economia Copernican. p- *ISSN* 2083-1277; e- *ISSN* 2353-1827.

Conclusion

In the process of decision-making in a group, there are many pitfalls, traps, challenges and peculiarities that require a careful and thorough study and approach to each of them, as well as the development of options and opportunities for monitoring and correcting the identified dangers. Decision-making errors and pitfalls should therefore be accounted for, such as: information overload, analysis paralysis, various categories of heuristics, various cognitive biases, a range of errors and biases distorting perception, attribution and the overall decision-making process.

Nowadays, modern information and computer technologies allow group decision-making to take place over great distances with the support of group decision support systems. Group Decision Support Systems are available, which are interactive computer-based systems that are able to combine communication and decision-making technologies to help groups make better decisions. And last but not least, the use of artificial intelligence is increasingly entering human daily life, which formulates new models of decision-making behaviour.

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Reference

- Andronie, Mihai; Lazaroiu, George; Stefanescu, Roxana; et al. (2021). Neuromanagement decision-making and cognitive algorithmic processes in the technological adoption of mobile commerce apps. Economia Copernican.
- Andronie, Mihai; Lazaroiu, George; Stefanescu, Roxana; et. al, (2021). Artificial Intelligence-Based Decision-Making Algorithms, Internet of Things Sensing Networks, and Deep Learning-Assisted

- Smart Process Management in Cyber-Physical Production Systems. Electronics.
- 3. Bauer, Talya, Berrin Erdogan (2012). An Introduction that Organizational Behavior. Creative Commons by-nc-sa 3.0. http://creativecommons.org/licenses/by-nc-sa/ 3.0/. https://2012books.lard-bucket.org/pdfs/an-introduction, available 18.11.2022.
- 4. Blackhart, GC, & Kline, JP, Individual differences in anterior EEG asymmetry between high and low defensive individuals during a rumination / distraction task, *Personality and Individual Differences*, 39, 2005, pp. 427–437.
- 5. Cardwell, Mike (1999). Dictionary of psychology. Chicago Fitzroy Dearborn.
- Cox, William TL; Abramson, Lyn Y.; Devine, Patricia G.; Hollon, Steven D. (2012). Stereotypes, Prejudice, and Depression: The Integrated Perspective. Perspectives on Psychological Science. 7 (5): 427–449. doi: 10.1177/1745691612455204. PMID 26168502. S2CID 1512121. Archived from the original (PDF) on 3 December 2013.
- 7. Davidson, Alice Ware; Bar-Yam, Yaneer (2006). *Environmental complexity: information for human environment well-being*. In Bar-Yam, Yaneer; Minai, Ali (eds.). Unifying themes in complex systems. Berlin; New York: Springer. pp. 157–168. CiteSeerX 10.1.1.33.7118. doi: 10.1007/978-3-540-35866-4_16.
- 8. Duncan, R. (1972). Characteristics of organizational environments and perceived environment uncertainty. *Administrative Science Quarterly*. 17 (3): 313–27. doi: 10.2307/2392145. JSTOR 2392145.
- 9. George, Jennifer M., Gareth R. Jones (2012). *Understanding and Managing Organizational Behavior*. Sixth edition. Copyright 2012, 2008, 2005, 2002 by Pearson Education, Inc. Prentice Hall.
- Hall, Crystal C.; Ariss, Lynn; Todorov, Alexander (2007). The illusion of knowledge: when more information reduces accuracy and increases confidence. Organizational Behavior and Human Decision Processes. 103 (2): 277–290. doi:10.1016/j.obhdp.2007.01.003.

- 11. McGarty, Craig; Yzerbyt, Vincent Y.; Spears, Russell (2002). Social, cultural and cognitive factors in stereotype formation. Stereotypes as explanations: The formation of meaningful beliefs about social groups. Cambridge: Cambridge University Press. pp. 1–15.
- 12. McSweeney, Alan (2019). Stopping Analysis Paralysis and Decision Avoidance in Business Analysis and Solution Design. doi:10.13140/RG.2.2.21841.38243. https://www.researchgate.net/publication/333247807_Stopping_A nalysis_Paralysis_And_Decision_Avoidance_In_Business_Analysis_And_Solution_Design, available 11.04.2024.
- 13. Merriam Webster Dictionary (2024). Stereotype. Merriam-Webster, Incorporated. https://www.merriam-webster.com/dictionary/stereotype, available 20.05.2024.
- 14. Miller, George A. (1956). The magical number seven, plus or minus two: some limits on our capacity for processing information. *Psychological Review*. 63 (2): 81–97. doi: 10.1037/h0043158. PMID 13310704.
- 15. Online Etymology Dictionary (2001-2024). Stereotype. Douglas Harper. https://www.etymonline.com/word/stereotype, available 20.05.2024.
- 16. Paul't Hart (1991). Irving L. Janis' Victims of Groupthink. Political Psychology, 12(2), pp. 247–278. https://doi.org/10.2307/3791464. https://www.jstor.org/stable/3791464, available 29.05.2023.
- 17. Rice University (2019). Organizational Behavior. OpenStax. Rice University. https://openstax.org/details/books/organizational-behavior, available 27.01.2023.
- 18. Roberts, Lon (2010). Analysis paralysis: a case of terminology inaccuracy Defense AT&L. pp. 21–22.
- Roe RM, Busemeyer JR, Townsend JT (2001). Multialternative decision field theory: A dynamic connectionst model of decision making. Psychological Review. 108 (2): 370–392. doi:10.1037/0033-295X.108.2.370. PMID 11381834.

- 20. Schermerhorn, John R., Jr. James G. Hunt, Richard N. Osborn (2002). Organizational behavior 7th edition. Copyright John Wiley & Sons, Inc. Printed in the United States of America. ISBN 0-471-22819-2 (ebook). http://dspace.vnbrims.org > jspui > bitstream > Organizational behavior, available 31.01.2023.
- 21. Stephen, P. Robbins, Timothy A. Judge (2013). Organizational behavior 15th ed. Pearson Education Inc. Prentice Hall. http://www.mim.ac.mw > books > Organizational Behavior PDF, available 26.01.2023.
- 22. Tajfel, Henri (1981). Social stereotypes and social groups. In Turner, John C.; Giles, Howard (eds.). Intergroup behavior. Oxford: Blackwell. pp. 144–167.
- 23. White, Jefferson (2018). Organization and Organizational Behaviour. Studocu.com. https://www.studocu.com/en-us/document/california-state-university-chico/seminar-in-organizational-behavior/bca-629-ob-lecture-notes-1-3/3990404, available 15.01.2023.