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The media-psychological model of environmental risk perception

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Abstract. The article presents the results of a theoretical analysis on the topic of media-psychological aspects of the perception of environmental risks and the presentation of the author's media psychological model of the impact of media messages on the perception of environmental risks. The presented model examines the processes and stages involved in the initial encounter with environmental risk messages in the media and the further outcomes of their processing which can manifest in information-seeking behaviour. According to the presented model, changes in risk perception are considered a series of stages initiated by attention to information and can continue when information-seeking behaviour is triggered. The main models relied on by the author of this study are the Limited Capacity Model of Motivated Mediated Message Processing to describe media message processing and the Risk Information Search and Processing Model to describe aspects of information-seeking behaviour. Several additional communication models dedicated to the consideration of information behaviour and processing of media messages were also used to describe the processes of mass media influence on the perception of environmental risks. Thus, dual models of information processing and persuasive communication are also considered, including the Heuristic-Systematic Model and the Elaboration Likelihood Model, as well as additional theories examining information-seeking behaviour: the Theory of Motivated Information Management and the Planned Risk Information Seeking Model

Keywords: risk perception; risk communication; risk information seeking; environmental risks

INTRODUCTION

Sustainable development and resilience to various kinds of environmental threats depend on laypeople's ability to understand and adequately interpret risk-related information and form informed opinions about environmental issues and threats and their impact on society and themselves personally. It is clear that risk perceptions influence individual decision-making processes, especially in terms of disaster preparedness and behaviour during disaster (Hernández *et al.*, 2018; Li *et al.*, 2024) as well as being a strong mediator of pro-environmental behaviour (Zeng *et al.*, 2020) because it determines what hazards and issues people worry about and how they see possible ways to deal with them (Paek & Hove, 2017). In addition, the raised issue is of particular relevance in the current situation, which an increasing number of scientists and policymakers characterise as a "polycrisis" (Lawrence *et al.*, 2024) producing an ever-increasing number of intertwined risks faced by both social systems and individual subjects. One of the important components of this situation in which modern society finds itself is environmental problems and associated risks, both chronic and acute. Moreover, Ukrainian society is now faced with a huge number of new, previously unknown environmental

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and technogenic threats associated with a large-scale war (e.g., higher risks of nuclear incidents, flooding as a result of dam destruction, demolition waste etc.) or an extreme aggravation of already existing negative eco-tendencies, which have significant adverse and sometimes catastrophic consequences for the state of the environment, public health and the functioning of the social system.

It can certainly be stated that the mass media are one of the most important sources of information for the public when dealing with environmental and technogenic risks (Klöckner, 2015). The mass media play an important role in shaping public perceptions of risk serving as a "social amplification station" interpreting and disseminating information about environmental risks into a form understandable to the public by either amplifying or attenuating public risk perception (Kasperson *et al.,* 2022).

The goal of objective and adequate risk communication practices in the media is not to cause motivated reasoning and defensive processing but, on the contrary, to capture and maintain attention, enhance the retention of information related to the message, and shape risk perception in order to impact future behaviour in ways that minimise the negative impact of environmental risks and their consequences. However, it is worth noting the significant problems and obstacles that accompany risk communication during the war and which may undermine effective risk communication attempts. Regarding environmental risks, several examples of such negative information impacts can be given, such as the spread in January 2024 of a fake message, allegedly from the State Emergency Service, about damage to the Khmelnytsky Nuclear Power Plant by a Russian strike and the need to download an electronic evacuation plan via a suspicious link (Ukrainians started sending fake…, 2024), or the dissemination of information that the authorities declare an emergency state of the Kyiv Hydroelectric Power Plant and the possibility of catastrophic flooding of Kyiv and some nearby areas, although no official statements from the authorities have been received (Balyuk, 2023). Thus, the questions raised prompt to consider the psychological and communicative processes involved in the influence of media communication on the perception of environmental risks.

LITERATURE REVIEW

Attention. Attention is one of the fundamental constructs in media studies, as confirmed by a large, multi-year body of research examining various forms of attention (Verschooren *et al*., 2019; Thompson & Coen, 2021; Fisher *et al.,* 2023). Since early research, attention has been viewed as a prerequisite for message reception (Chaffee & Berger, 1987) and as an antecedent, moderator, or goal in a variety of communication theories and models (e.g., Elaboration Likelihood Model) (Petty & Cacioppo, 1986). Considering attention and incorporating it into the model as a separate element becomes more important given the increasing multitasking nature of media usage and the sheer volume of media information in total (Lopez *et al*., 2018; Segijn *et al*., 2018). Risk and crisis communication researchers have also long argued that risk communication must take into account not only the dissemination and reception of information but also the problem of attention to the message (Wogalter, 2018; Li *et al.,* 2023).

Both exposure and attention are essential prerequisites for the effectiveness of persuasive communication and the acquisition of new knowledge (McGuire, 1989), but attention should be distinguished from similar but different concepts such as exposure. Media exposure refers to the amount of media content individuals hear or see in relation to specific messages (Li *et al.,* 2017a). For instance, individuals who are consistently exposed to environmental information are inclined to view environmental values as significant, have a more extensive understanding of environmental issues, and hold favourable views towards environmental conservation (Huang, 2016; Liao *et al.,* 2016). However, mere exposure does not determine whether cognitive resources will be allocated to processing a media message. People can be exposed to information without paying attention to it and can direct their attention towards different information and things with different intensities (Kahneman, 1973). Even though exposure to media material has occurred, there may be significant differences in the level of involvement and attention to the message and, accordingly, the degree of its processing. Thus, media attention is the basis for active participation in communication and serves as the stable foundation for processing and incorporating information into the structure of one's own knowledge (Ho & Yang, 2018).

A lot of environmental risks often have no immediate impact (Hansen, 1991; Weber, 2010). Such risks often do not evoke immediate emotions (as in the case of direct personal risks) and are difficult to conceptualise. This difficulty arises due to the somewhat abstract nature, causal complexity, and significant time extension of these risks (Weber, 2006). In relation to environmental risks, K. Mrkva *et al.* (2021) have shown that simply paying attention to such risks can amplify the perceived severity of these risks because attention increases the fear and distinctiveness of attended risks. That is an important factor, especially in relation to impersonal and abstract risks such as climate change. Moreover, when it comes to environmental risks with high catastrophic potential (risks of man-made disasters and natural disasters), attention to risk communications is the initial stage in making decisions regarding preventive measures (Lindell & Perry, 2012). Thus, among other things, successfully attracting attention to risk messages (e.g., alerts and warnings) and their elements is a crucial task for risk communication.

Information processing and communication theories have demonstrated that people have a limited amount of mental resources to process all stimuli in a noisy media environment and will selectively attend to some of the information and only a limited number of media messages they encounter (Lang, 2017; Leung, 2020; Fisher *et al.,* 2023). Attention can be described as a finite resource for processing information (Wickens, 1980). Another perspective on attention views it as a mechanism for selecting which information to prioritise for processing (Chun *et al.,* 2011). M.D. Slater *et al.* (2009) describe media attention as the conscious allocation of cognitive resources towards specific types of media messages. Thus, attention is considered, on the one hand, as a filter that selects elements for subsequent processing from the volume of media exposure, and on the other hand, as a means of maintaining information processing.

One of the promising ways of considering the problem of attention in multimodal media space and multimedia multitasking is the approach in which attention is described in terms of "priority maps" that integrate top-down, bottom-up, and selection history to guide information processing (Fisher *et al.,* 2023). As such, attentional priority is a joint product of multiple control mechanisms that may cooperate or conflict with each other. The first is salience or the degree to which a stimulus stands out from surrounding stimuli. Secondly, the features of the goal-relevance of the stimulus. Third, selection history relates to lingering selection biases that are unrelated to top-down control or the salience and distinctiveness of objects and is associated with the history of selection episodes from the past and previous experience (Awh *et al.*, 2012; Chelazzi & Santandrea, 2018). At the same time, some authors suggest that the learning mechanisms underlying attentional capture driven by outcome-independent selection history differ qualitatively from those underlying value-driven attentional capture (Anderson & Britton, 2019) and also consider different mechanisms and components of experience-driven attention that collectively constitute selection history (Anderson *et al.*, 2021).

MATERIALS AND METHODS

Information seeking and processing. In recent years, in the field of communication research, considerable attention has been paid to information-seeking behaviour, especially about risk. Risk information seeking is usually described as a goal-directed information-gathering behaviour that can be carried out with varying degrees of intensity, including the use of various communication channels, both indirect and interpersonal. It is driven by personal goals, involving a range of cognitive and emotional motivations (Griffin *et al.*, 2013). During the history of studying information-seeking behaviour related to risk information, various conceptual models and theories mapping individual and social cognitive motivators of risk information seeking have been proposed, which in some aspects may overlap and use common constructs or incorporate elements of previously developed models to explain information-seeking behaviour. Among such frameworks, several that have a fairly long history of research and an accumulated evidence base can be highlighted: *The theory of motivated information management* (TMIM), which examines the relationship between information behaviour and uncertainty (Afifi & Weiner, 2004), *the Risk Information Seeking and Processing Model* (RISP) which explains the factors and mechanisms underlying risk information seeking and processing (Griffin *et al.*, 1999); and *the Planned Risk Information Seeking Model* (PRISM), which focuses on purposeful risk information seeking behaviour (Kahlor, 2010). Each framework will be briefly discussed further.

Concerning the object of study, the RISP model formulated by Griffin *et al.* (1999) stands out as one of the most detailed models designed to unravel the psychological, communicative and social factors conditioning risk information seeking and processing. The RISP predictions have, for the most part, been substantiated by the results obtained thus far; for example, a meta-analysis of empirical RISP studies concluded that "Overall, the RISP model exemplified excellent explanatory power in analyses with information seeking and systematic processing as the outcome variables" (Yang *et al.*, 2014, p. 34). Since its original development, the RISP model has been used in empirical studies in a variety of risk communication settings to consider risk information behaviour (mainly seeking) and processing risk-related information (Yang *et al.,* 2014). It combines theoretical ideas represented by the Heuristic-Systematic Model (HSM) of the information process (Eagly & Chaiken, 1993) and the theory of planned behaviour (TPB) (Ajzen, 1991). The RISP model has been applied to various environmental risks including, but not limited to, climate change (Yang *et al.*, 2014a), air pollution (Rose *et al.*, 2017), disaster resettlement (Shi *et al.*, 2020) various pollutants (Hovick *et al.*, 2020), water quality and contaminated fish consumption (Kahlor *et al.,* 2004) and flooding (Griffin *et al.*, 2008). The model suggests different characteristics of people that may predispose them to seek risk-related information. RISP posits that feelings of information insufficiency *(the need for information as a person perceives it*), beliefs about relevant channels, and perceived ability to gather information (*a person's belief in their ability to find and understand information*), alongside indirect predictors that include perceived hazard characteristics *(an individual's perceptions of risk)*, subjective norms about information *(a person's perceived social pressure to obtain information*), affective reactions *(fear or worry)*, and various individual characteristics, will play a role in motivation to seek and process information about risk (Griffin *et al.*, 2013; Dunwoody & Griffin, 2015). The

concept of information insufficiency is a key element in the RISP model. It pertains to an individual's perception of the disparity between available knowledge and the necessary knowledge to effectively address a specific risk, also known as the "sufficiency threshold". Thus, the feeling of information insufficiency is considered a direct motivator for information-seeking behaviour (Dunwoody & Griffin, 2015).

The PRISM is primarily an extension of RISP but more systematically involves elements of the theory of planned behaviour. According to this framework, the seven main factors that shape information-seeking intention include: (a) subjective norms associated with searching, (b) attitudes toward searching, (c) perceived current knowledge, (d) perceived search control, (e) perceived lack of knowledge, (f) risk perception, and (g) emotional response to risk (Kahlor *et al.,* 2019). PRISM has also been used to study information-seeking behaviour related to environmental risks, and support for the model has been firm across various fields including hydraulic fracturing (Eastin *et al.*, 2015), earthquakes (Li *et al.*, 2017b; Kahlor *et al.*, 2019), nuclear energy (Zeng *et al.,* 2017), flooding (Stephens *et al.*, 2023), and climate change (Ho *et al.*, 2014). As such, the model offers a viable point for understanding risk information-seeking intent in the context of environmental risks.

The Theory of Motivated Information Management (TMIM) is built upon traditional frameworks like the uncertainty reduction theory (Berger & Calabrese, 1975). TMIM posits that individuals go through three stages when faced with uncertainty: interpretation, evaluation, and decision. The interpretation commences with the identification of a perceived uncertainty gap. The gap lies in the difference between an individual's current degree of uncertainty and the preferred degree of certainty. TMIM argues that recognising this disparity between desired and actual uncertainty levels leads to anxiety, which then motivates the move to the evaluation and decision stages. Individuals, when faced with heightened uncertainty and feelings of anxiety, engage in a process of evaluating potential outcomes and their own ability to alleviate anxiety through information seeking. The evaluation of the costs and benefits associated with seeking information will impact how information is managed. Furthermore, individuals evaluate their capacity to handle the information received (coping effectiveness), successfully search for information (communication effectiveness), and view the information source as competent and trustworthy in providing the necessary information (target efficiency) (Afifi *et al.*, 2015). The TMIM was primarily developed to examine interpersonal contexts and health-related topics; to date, it has not received significant use or validation in relation to environmental risks, partly because it was originally developed for other purposes (Kuang & Wilson, 2021).

The considered models have common elements regarding the motivating factor of information-seeking behaviour and are somehow based on the sufficiency principle of the Heuristic-Systematic Model (HSM). Taken together, it can be broadly said that the main motivation for information-seeking behaviour is as follows: a) uncertainty and a sense of lack of information, leading to an unfulfilled need for additional information, b) perceived ability to effectively seek and cope/interpret information, c) perceptions of risk and associated emotional reactions, and d) perceived social expectations about the need to seek information.

Information processing plays a crucial role in understanding how risk information influences risk perception. Communication and psychological studies have produced several theories and models that focus on the processing of information and persuasion. The first theories represent a dual-process approach to theorising message processing, attitude formation, and persuasion phenomena, which postulate that persuasion and message processing operate through two different modes of information processing. One requires more cognitive effort and systematic processing of information, while the other requires fewer resources and operates more automatically (Evans, 2008). Two of the most notable dual process models which can be used to consider information processing are the Elaboration Likelihood Model (ELM) (Petty & Cacioppo, 1986) and the Heuristic-Systematic Model (HSM) (Chaiken, 1987).

The ELM and the HSM share several similarities, which can be summarised in the following points. Firstly, they both assert that persuasion can occur through two distinct modes of information processing. Secondly, these models recognise that the desire for accuracy plays a significant role in influencing information processing. However, this motivation for accuracy does not necessarily eliminate bias in the processing of information; factors such as prior knowledge and existing attitudes towards a particular issue can influence how individuals process information. Thirdly, they propose that people tend to conserve cognitive resources even when they want their judgments to be correct. Lastly, they emphasise that a person's motivation and processing ability are crucial factors in determining the primary processing mode. In existing ELM and HSM studies, it has been identified that certain factors can impact information processing ability. Among them are such factors as distraction, time pressure, problem knowledge, and message repetition (Gawronski & Creighton, 2013; Xu, 2017). A more detailed review of these models and their differences can be found in relevant studies and is beyond the scope of the current article.

It is important to note that the RISP model also considers message processing and relies on dual models to describe this process, in particular, the Heuristic-Systematic Model (HSM). The HSM itself as a theoretical framework for studying environmental risk information processing has also been tested empirically (e.g., for studying risk information processes following

a nuclear incident (Yeonjae & Seoyong, 2015)). In this sense, some overlap may be found with the views of P. Slovic *et al.* (2004), who propose that risk perception can be understood as a dual process that combines both cognitive and affective systems. The risk-as-analysis system is characterised by its analytical, rational, controlled, and goal-oriented nature albeit being labour-intensive and unhurried in adhering to normative principles of probability in order to generate behaviour that is logical and reason-driven. In contrast, the experiential, automatic, and intuitive risk-as-feeling system operates swiftly, although it may be less precise, being more attuned to heuristics, associations, images, emotions, and feelings.

These interconnected information processing systems, which often operate simultaneously, are believed to collaborate in influencing the cognitive processes involved in perceiving and evaluating risks. This phenomenon has been referred to as the intricate interplay between emotions and rationality, which has been named the "dance of affect and reason" (Finucane *et al.*, 2003).

Other theories, among which the Limited Capacity Model of Motivated Mediated Message Processing (LC4MP) (Lang, 2000), can be distinguished. This model is devoted to a detailed consideration of the mechanisms and subprocesses through which media messages are processed. LC4MP provides a conceptual framework for viewing media communication processes that can be used to consider communication in a variety of contexts, including environmental risks. Because environmental risk communication often conveys complicated information in multiple modalities (e.g., text, images, and video), the LC4MP is a useful theoretical framework for investigating how individuals process those messages, since it looks at message processing without focusing on the specific type and modality of information embedded in the message.

This model is based on a cognitive approach and views people as processors with limited information processing capabilities. Research using this model has revealed a complex interaction between individual differences (e.g., sensation seeking and individual differences in motivation), stimulus variables (e.g., content and message structure features), and time. The LC4MP has proven its practical usefulness for developing media messages in a variety of contexts, including persuasive messages, news, video games, risk communication campaigns, and more (Lang *et al.*, 2013; Fisher *et al.,* 2018a; Fisher *et al.*, 2018b). The LC4MP model conceptualises media message processing as the interaction of three subprocesses that occur dynamically, continuously, and simultaneously: encoding, storage, and retrieval (Fisher & Weber, 2020). The LC4MP theory posits that the human processing system has a limited capacity and operates with a single pool of cognitive resources that are divided into categories such as resources required, resources allocated, resources available, and resources remaining (Lang, 2006). Within the LC4MP framework, it is suggested that resources are dynamically distributed to encoding, storage, and retrieval processes, with the consumption rate of these resources being dependent on the complexity of the message.

Based on LC4MP, these processes operate concurrently and persistently while engaging with media. The individual's objectives, message content, and structure consistently trigger the automatic and controlled distribution and redistribution of resources for encoding, storage, and retrieval. These resources are independently allocated among three subprocesses from a single finite pool of resources. The primary variables of LC4MP include the medium, structure, content, and goal of a message, which are believed to interact with each other and with the attributes of the message recipients to influence the outcomes of communication (Lang *et al.*, 2006).

Encoding refers to the act of constructing a mental image of a stimulus. It is the process by which information from the message is selected for further processing. In order for information to be encoded, a person must controllably (consciously) or automatically allocate some resources to it. Storing a message involves linking encoded information with already accumulated information. When a cognitive resource is allocated to process a media message, it is encoded. Resources can be allocated in a controlled or automatic manner.

Storage is understood as linking newly encoded information with previously stored information. The simultaneous activation of these processes strengthens the connection between new and existing information. As a result, a dynamic cognitive representation is created when new information is encoded or when previously stored information is retrieved. This simultaneous activity strengthens the connection. Therefore, the greater the number of connections a new piece of information forms with existing information, the more effectively it is retained. In this way, this process is understood as the procedural inclusion of encoded information in an associative structure and describes how information is incorporated into long-term memory.

The third subprocess is retrieval. This subprocess involves reactivating stored information for concurrent and parallel information processing. The volumes of extracted related information depend on the allocated resources. Thus, within this model, retrieval can be described as searching the associative memory network for a specific piece of information and then returning it to working memory through reactivation (Lang, 2000).

RESULTS AND DISCUSSION

The model was built taking into account the passage of three main stages: 1) exposure and attention filter; 2) message processing; and 3) information-seeking behaviour (Fig. 1).

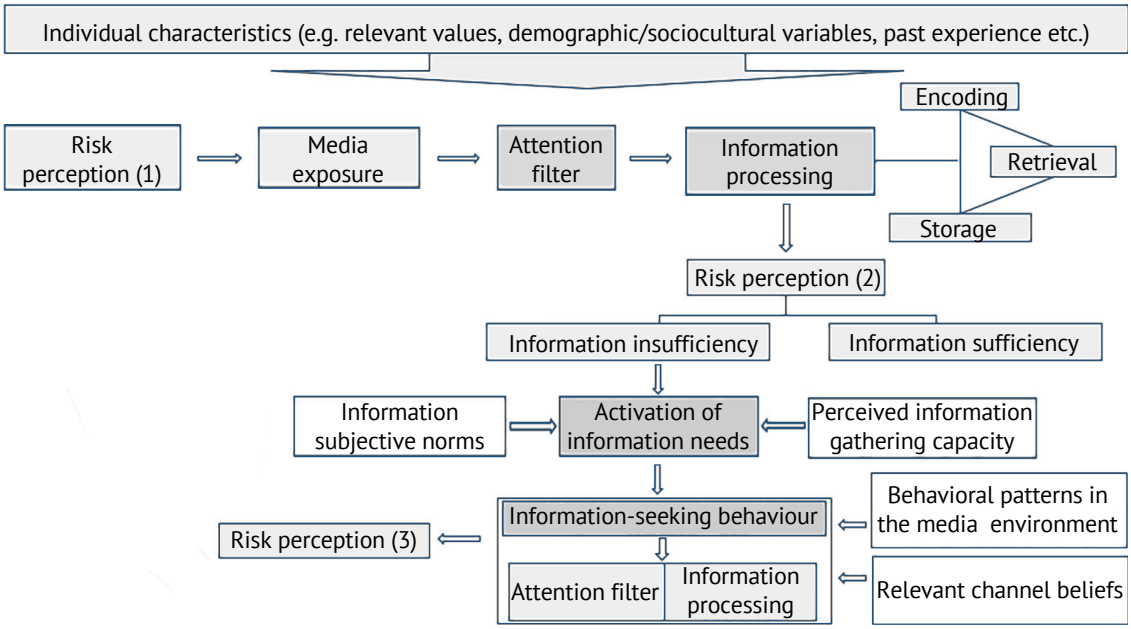

Figure 1. The Media-psychological model of environmental risk perception

Note: compiled by the author

First, regardless of whether is considered random media exposure or information-seeking behaviour, any conscious interaction and processing of a media stimulus begins with an attention filter – in the process of interacting with the media, a person needs to filter numerous and often competing information stimuli, since cognitive resources are limited in nature and therefore able to target only a limited amount of information. Currently, considering the information oversaturation of the media space and the complex nature of environmental risks, the inclusion of an *attention filter* in the model is considered an extremely important element since it will directly determine which messages from the entire intense information flow containing many emotionally arousing messages will be prioritised for deeper processing.

Just as noted above, attention to the message not only provides further processing through the prioritisation of the message but also influences risk perception (Mrkva *et al.,* 2021) since attention has a profound impact on perceptions and mental representations. Moreover, directing attention towards specific objects enhances their perceived distinctiveness and vividness (Carrasco, 2006). Thus, the message must not only be received (get into the structure of the information flow that the media user will encounter) but attention must also be paid to it. The priority of attention can be explained by the interaction of three factors or three distinct categories of selection bias. It is important to note that in everyday media consumption, bottom-up, top-down processing, and selection history constantly interact to direct attention to the messages that are embedded in information channels that the media consumer usually uses. This is consistent with the view proposed in LC4MP, which states that resources are allocated separately to encoding, retrieval, and storage via automatic and controlled processes. Controlled allocation is determined by the viewer and is associated with viewer objectives and preferences. On the other hand, automatic allocation is dictated by the message itself. The allocation of resources automatically is influenced by the orienting response and by the activation within the motivational systems (Fisher & Weber, 2020).

The first of these is salience. Thus, if a stimulus is salient, attention is allocated involuntarily. This phenomenon is known as involuntary attentional capture. Salience is the property of a stimulus that can attract attention (a bottom-up component of attention) (Treue, 2003; Bouvier *et al.*, 2023) Thus, the characteristics of a message that distinguish it from the general information flow are more likely to attract attention during exposure. For example, utilising visual elements, such as bright colours, images and warning signs, increases message impact because these elements are very noticeable to the audience and can involuntarily attract attention (Sutton *et al.*, 2024). This implies that visually salient and bright elements of a message play a crucial role in capturing the attention of audiences.

However, overemphasising automatic, involuntary responses related to the perceptual salience of the message underestimates the role of a person's goals and objectives in processing and paying attention to messages. While some distinctive yet irrelevant stimuli can draw someone's attention, attention can be quickly switched to another stimulus, avoiding further processing of the message. This refers to top-down attention, which is a deliberate mechanism where an individual internally chooses and concentrates on a particular

location, feature, or object that is pertinent to their ongoing behavioural objectives (Hopfinger *et al.*, 2000). Limited capacity theorists have additionally highlighted that individuals conserve cognitive resources across all levels and employ only the essential amount of resources required unless they possess a strong motivation (Lang, 2006). Thus, the message about the risk should activate the motivational system for further processing and maintaining attention to it. As such, this factor primarily plays a role in the selection of messages when initiating information-seeking behaviour or activating the motivational component after media exposure.

Selection history reflects the role of associative learning and memory in the allocation of attention. It refers to the influence of previous experience on the allocation of attention and the prioritisation of messages, which are unrelated to current goals and the physical salience of the items competing for allocation (Anderson *et al.,* 2021). It includes various features of the influence of risk perception, social learning, and past experience on the allocation of attention during media message exposure. For example, past personal experience of a natural disaster, specifics of previous media coverage of the risk, or environmental attitudes may be significant factors in attracting attention to messages about environmental risks.

Processing a message containing risk information can be described using the components of the LC4MP model, where message processing is considered the interaction of three subprocesses: encoding, storage, and retrieval. A variety of personal and stimulus variables influence this process, and the outcome of message processing can be considered as a product of the content, composition, personal, and motivational significance of the mediated message. As such, the results of message processing, depending on the specific risk, will be influenced by a whole complex of individual dispositional and situational factors (e.g., values, relevant hazard experience, knowledge, institutional trust, message complexity, structure etc.). Depending on the resources allocated, information processing will involve systematic processing and heuristic processing with varying degrees of dominance. Here, systematic processing refers to the deliberate and effortful processing of risk information, whereas heuristic processing refers to more automatic processing based on cognitive shortcuts or heuristics.

However, the informational impact of a message does not end with the cessation of its processing. On the contrary, initial exposure and attention to a media message can trigger additional forms of information behaviour. Depending on the results of information processing, subsequent changes in risk perception may increase the gap between the sufficiency threshold (what a person thinks he needs to know) and current knowledge (what he knows at the moment). Based on the RISP model, various variables can either directly influence the feeling of information insufficiency (e.g., perceived hazard characteristics) or act as moderators (e.g., perceived information gathering capacity) of the translation of information insufficiency into information-seeking behaviour (Dunwoody & Griffin, 2015).

Information insufficiency entails a person's feeling that they lack the necessary information to adequately handle a risk, which is a strong motivator for seeking additional information and engaging in systematic processing of this information. Furthermore, as stated by the RISP model, *information subjective norms* play a significant role in influencing the act of seeking information and the sufficiency threshold. Thus, social contexts possess the capability to mould individuals' perspectives on the amount of information necessary to meet their information-processing goals (Griffin *et al.*, 2013).

Risk perception could be considered as a combination of perceived hazard characteristics and affective response. Perceived hazard characteristics include various risk evaluation factors at the cognitive level (e.g., vulnerability, severity, personal control, probability, and so on). The impact of perceived hazard characteristics on information insufficiency is suggested to be mediated by affective responses (Griffin *et al.*, 2004). In response to perceived risk characteristics, people experience negative emotions, such as anxiety or fear (Griffin *et al.,* 2008; ter Huurne *et al.*, 2009), and these affective responses stimulate information-seeking behaviour by increasing information insufficiency. Thus, the initial processing of a risk message can lead to a change in risk perception stimulated by this feeling of information insufficiency and consequently trigger information-seeking behaviour.

Relevant channel beliefs encompass the cognitive and affective ways used by individuals to evaluate information channels (Dunwoody & Griffin, 2014). Beliefs about risk information channels, including such characteristics as their trustworthiness and usefulness, could affect information seeking, processing, and source selection. *Information gathering capacity* reflects the perceived capability to carry out the steps involved in seeking and processing information to achieve a desired result (Griffin *et al.*, 2008).

The RISP model also considers the role of *various individual characteristics* (e.g., past experiences with hazards, relevant values, etc.) as crucial to influencing multiple components of information seeking and processing. Empirical studies have shown a consistent relationship between individuals' attitudes towards environmental information and their intentions or actions to seek out such information (Ho *et al.*, 2014; Kahlor *et al.*, 2019). Another example that can be highlighted is typical media usage patterns, including characteristics such as usage frequency and preferences for content/activity, which generally determine interaction models with media and many aspects of information behaviour (Brandtzæg, 2010).

CONCLUSIONS

The theoretical analysis and the model presented provide a framework for further research into the communication and psychological processes involved in how media information influences environmental risk perception. The model focuses solely on information behaviour and processing related to environmental risk information, without considering changes in behaviour towards risk. The model particularly emphasises attention, distinguishing it from exposure and highlighting its role as the initial stage of message processing and in shaping risk perception. The components of the RISP model allow for a comprehensive consideration of risk communication beyond processing individual media messages, encompassing subsequent stages of information behaviour. The model does not address other forms of information behaviour that may occur post-exposure, such as information spreading or avoidance, which would require separate analysis. Future research prospects may involve exploring factors influencing information behaviour regarding environmental information, comparing attention to chronic and acute risks, and validating predictive models within the Ukrainian cultural context.

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CONFLICT OF INTEREST

None.

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Медіа-психологічна модель сприйняття екологічних ризиків

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Анотація. У статті представлені результати теоретичного аналізу на тему медіа-психологічних аспектів сприйняття екологічних ризиків та презентація медіа-психологічної моделі впливу медійних повідомлень на сприйняття екологічних ризиків, побудованої на її основі. Представлена модель досліджує процеси та етапи, що включаються у початкове знайомство з повідомленнями про екологічні ризики у медіа та подальші наслідки їх обробки, які можуть виявитися в поведінці з пошуку інформації. Згідно з представленою моделлю, зміни у сприйнятті ризиків розглядаються як послідовність етапів, що починаються з уваги до інформації і можуть продовжуватися, коли викликається поведінка з пошуку інформації. Основні моделі, на яких спирається автор цього дослідження – це обмежена модель обробки мотивованих медійних повідомлень для опису обробки медійних повідомлень і Модель пошуку та обробки інформації про ризики для опису аспектів поведінки з пошуку інформації. Також використовувалася ряд додаткових комунікаційних моделей, приділених вивченню інформаційної поведінки та обробки медійних повідомлень, для опису процесів впливу мас-медіа на сприйняття екологічних ризиків. Таким чином, також розглядаються двійкові моделі обробки інформації та переконливої комунікації, включаючи модель евристичного систематичного підходу та модель обґрунтованого шляху, а також додаткові теорії, що вивчають поведінку пошуку інформації: теорія мотивованого керування інформацією та Модель планованого пошуку інформації про ризики

Ключові слова: сприйняття ризиків; комунікація ризиків; пошук інформації про ризики; екологічні ризики