CLIMATE CRISIS: AN UNDERAPPRECIATED HEALTH EMERGENCY

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ABSTRACT: This study investigates the limited perception of the climate crisis as a health emergency among media professionals in Italy. Drawing on a quantitative survey conducted with a random sample of 548 journalists, the research analyses how the media shape public awareness of the links between climate change and health. Findings reveal that the vast majority of journalists underestimate or deny the correlation between environmental degradation and human health, with only 38.6% acknowledging climate change as a significant or imminent health threat. By integrating theories of media effects the study demonstrates that mass media remain decisive agents in constructing social representations of climate change. The results highlight the urgent need for more competent science communication and for freeing journalism from the economic and ideological constraints imposed by the most polluting industries.
KEYWORDS: #ClimateChange, #HealthCrisis, #MassMedia, #Journalism, #PublicPerception, #EnvironmentalCommunication, #MediaEffectsTheory.

INTRODUCTION

LIMITED MEDIA COVERAGE OF THE CLIMATE CRISIS

The idea of exploring the issue of the media's limited perception of the climate crisis as a health crisis —and consequently, the public's limited awareness as recipients of media messages— arose from the observation that Italian news outlets show little interest in addressing climate change. Compared with the past, there has actually been a decrease in the coverage of news related to this topic.

This intuition was later confirmed by evidence from the *Osservatorio di Pavia*, which, in collaboration with Greenpeace Italy, analyses media coverage of climate change in Italy. The 2024 monitoring examined how the climate crisis was portrayed in the five most widely read national newspapers (*Corriere della Sera*, *La Repubblica*, *Il Sole 24 Ore*, *Avvenire*, and *La Stampa*) and in the evening news programmes of RAI, Mediaset, and La7 networks. The study also analysed statements on the climate crisis and decarbonisation posted on Facebook by eleven political leaders and government representatives.

According to the findings, which measured the frequency and approach with which Italian newspapers reported climate-related news, the *Osservatorio di Pavia* highlighted a noticeable decline in climate crisis coverage. On average, the main Italian newspapers published 4.4 articles per day that mentioned, at least marginally, climate or energy transition issues. However, articles specifically focused on the climate crisis appeared only once every two days.

The study also revealed the Italian press's strong dependence on advertising from highly polluting industries, such as oil, gas, automotive, aviation, and cruise companies. With the exception of *Avvenire*, the other newspapers recorded an average of four advertisements per week from these companies, outnumbering the articles dedicated to the climate crisis.

Based on data from the *Osservatorio di Pavia*, Greenpeace updated the ranking of major Italian newspapers. As in previous years, only *Avvenire* achieved a nearly satisfactory rating in 2024. *Il*

Sole 24 Ore ranked second, improving its position thanks to broader coverage of the climate crisis, followed —at a significantly lower level— by *Corriere della Sera*, *La Stampa*, and *La Repubblica*.

Yet the planet's health should be the story we care about most, for it concerns our shared home. Providing accurate information about the Earth's condition and highlighting feasible solutions with the help of scientists and experts should be the path media follow, enabling society and citizens to be more aware of a problem as serious and urgent as the climate crisis, a sensitive and delicate issue to address.

Indeed, it is not easy to navigate between sceptics and scientists' statements, which often require translation for the general reader because they risk being too technical: "translating from Italian into Italian."[1]

GENERAL INTRODUCTION TO THE THESIS AND RESEARCH

"The Climate Crisis as a Poorly Perceived Health Crisis" plays on the dual meaning of the concept of "health crisis," referring to a *crisis of health* rather than a *sanitary crisis*. The term "health" was intentionally chosen to emphasize that the climate crisis, while affecting human well-being, is not itself a medical or hospital-related phenomenon.

The phrase "poorly perceived" is based on the hypothesis that there is little awareness of the correlation between *climate change* and *health crisis*. This perception gap was measured through a survey directed at journalists, those who most contribute to shaping a "collective consciousness" in this area.

The statistical population of the research consisted of all individuals registered with the **Italian National Order of Journalists**, with a sampling intensity of **548 journalists**, representing **0.5%** of the total population.

The study examined both the direct and indirect consequences of climate change on human health, comparing human-made and natural disasters, and highlighting that even so-called natural disasters

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[1] Piero Angela, *Le vie della divulgazione scientifica* in *Enciclopedia Treccani XXI Secolo. Comunicare e Rappresentare,* Istituto della Enciclopedia Italiana, Rome, 2009.

are largely man-made. It also considered environmental crime as a health threat and analysed the role of mass media.

The working hypothesis advanced was that *"the climate crisis (independent variable), as subjectively perceived by the journalists interviewed, does not determine a significant health crisis (dependent variable)."*

Accordingly, the study investigated the relationship between **mass media and the climate crisis** through an experimental research design aimed at assessing how media professionals perceive climate change.

The instrument used was a **multiple-choice questionnaire**, designed to analyse the relationship between mass media and the "health crisis" through journalists' opinions. The questionnaire was administered to a random, representative sample of the entire population of 104,542 journalists registered with the Order of Journalists, as listed in the *Agenda del Giornalista* updated on **July 20, 2024**.

REFERENCES TO SCIENTIFIC LITERATURE

Today, mass media have become so influential that they demand serious reflection on the complex social and cultural effects they produce. For the purpose of this study, a thorough review of the scientific literature on the social effects of media was conducted, referring also to findings from previous research *The Influence of Mass Media in the Genesis of the Aesthetic Ideal* (Rome, Logos Editions, 2007). That research illustrates how mass communication can influence audiences and how media both perceive and shape awareness of the direct and indirect consequences of climate change on health.

The theoretical framework begins with early theories asserting the omnipotence of the media and proceeds to those giving greater weight to individual and social factors, analysing both short-term and long-term effects.

For short-term effects, this study considered:

- The **Hypodermic Theory** (media omnipotence and manipulation),

- The **Selective Influence Theory**,

- The **Theory of Individual Differences**,

- The **Social Differentiation Theory**,

- The **Social Relations Theory**,

- The **Limited Effects Theory** (mediated influence),

- The **Functionalist Theory** (sociological approach),

- The **Uses and Gratifications Theory** (functionalist),

- The **Critical Theory**, and

- The **Culturological Theory**.

For long-term effects, it examined the **Spiral of Silence Theory** (public opinion theory), the **Cultivation Theory**, and the **Agenda-Setting Theory**. These approaches posit a weakening of traditional socialisation agencies and a direct influence of the media, focusing not on episodic communicative events but on the effects of prolonged and continuous exposure.

In particular, Elisabeth Noelle-Neumann's *Spiral of Silence* model, developed within her theory of public opinion —but applicable as a theory of media effects— marked the beginning of the reaction against the dominant paradigm of limited effects.

OBJECTIVES

The objective of this research is not primarily to demonstrate the *existence or non-existence* of a phenomenon, but rather to demonstrate the *existence or non-existence of its perception*, as formulated in the following problem statement:

Can the climate crisis generate a significant health crisis?

The central aim is to demonstrate that *"the climate crisis (independent variable), as subjectively perceived by the journalists interviewed, does not determine a significant health crisis (dependent variable)."*

THEORETICAL AND EMPIRICAL FRAMEWORK

DEFINITIONS

This section lists and defines certain key terms whose conceptual clarification is necessary for the present study.

The term **mass media** is defined as the set of mass communication tools through which information can be directed toward a plurality of indistinct recipients. For the purposes of this research, seven categories of communication media are distinguished:

a) television,

b) radio,

c) cinema,

d) daily press,

e) periodical press,

f) the Internet,

g) social media.

When referring to **periodical press** in this thesis, the category of daily newspapers is excluded, although both fall under the broader definition of the press and maintain regular periodicity. In our methodological approach, however, daily newspapers must remain separately categorised to allow for a more accurate evaluation of the experimental research results.

The **Internet** category includes the new media developed after the advent of information technology and in correlation with it, insofar as they are used as one-to-many or many-to-many mass communication media, excluding social networks.

The expression **mass media operators** refers exclusively to professional or publicist journalists registered in the official roll. This group comprises **104,542 individuals**, according to *Agenda del Giornalista* as of **July 20, 2024**.

The expression **"opinions on the direct and indirect consequences of climate change on health"** refers to a mental and spiritual construct concerning sentiment as a model toward which humans tend in action or cognition.

SPATIO-TEMPORAL SCOPE

The definition of the spatio-temporal scope of this project is divided into two domains: one concerning the theoretical study of scientific literature, and another concerning the empirical research itself.

Regarding the theoretical study of scientific literature, no spatial or temporal restrictions were set, allowing for the analysis of both earlier and more recent theories. This decision —beyond the intent to obtain a complete historical framework— was primarily motivated by the renewed relevance of earlier theories that hypothesised media omnipotence, which today find new applications within long-term exposure studies.

The literature examined thus begins with the **1920s**, when the first research in the field of *Mass Communication Research* emerged, and continues up to the present day.

As for the spatio-temporal framework of the **empirical research**, the study focused on the **current Italian context**, limiting the spatial scope to Italy and the temporal scope to **the year 2024**, using the most up-to-date available data.

STATISTICAL POPULATION

The statistical population of the experimental research comprises the total number of individuals registered with the **Order of Journalists**, including both professional and freelance (publicist) journalists. Thus, the total population includes **104,542 analytical units**.

SAMPLE

A **randomised sampling** method was selected, as it provides a sample free of systematic error (bias) and, thanks to the availability of census data from the *Centro di Documentazione Giornalistica* (Journalistic Documentation Centre), is relatively straightforward to apply.

Having access to complete and detailed population data allowed the use of a method ensuring true randomness: each of the **104,542 analytical units** had the same probability of being selected.

The sampling intensity was **548 journalists**, corresponding to **0.5%** of the total population. This sample size was determined using an electronic calculation of sampling adequacy with a **95% confidence interval**.

Because the questionnaire was distributed via email, and a response rate of around **8%** was anticipated, the total number of invitations sent was increased to **7,644 journalists**. Following this procedure, the final effective sample —those who completed and returned the questionnaire— consisted of **548 journalists**.

INCLUSION AND EXCLUSION CRITERIA

All journalists in the statistical population were eligible for inclusion; no a priori exclusion criteria were applied.

Those who did not respond to the questionnaire —**7,096 journalists**— effectively self-excluded from the research. This outcome was anticipated given the expected 8% feedback rate, implying that 92% of contacted journalists would not reply.

MATERIALS AND METHODS

For data processing, **Microsoft Excel** was used for both sample selection and hypothesis testing, as well as for computing values needed to demonstrate the thesis.

The research followed the **hypothetico-deductive method** with a **quantitative approach**, aiming to explain the observed phenomenon through non-causal interpretations.

The source for sampling was the **2024 census** compiled by the *Centro di Documentazione Giornalistica*. From this, **7,644 journalists** were selected out of the total 104,542, using **simple random sampling** via a spreadsheet programmed to generate random numbers between 1 and 104,542. Each individual in the population thus had an equal probability of selection, ensuring true randomness.

Questionnaires were emailed to the **7,644 selected journalists**, and **548 responses** were received. These responses were entered into a spreadsheet to analyse frequency distributions and to conduct recategorisation for deeper analysis and hypothesis testing.

Finally, the **chi-square test** was calculated to confirm that the obtained results were not random and should be accepted within statistical parameters.

PROBLEM

The problem formulated for this research can be expressed in the following terms:

Can the climate crisis generate a significant health crisis?

The central question seeks to determine to what extent the climate crisis is believed to affect human health.

OBJECTIVE

The objective of this research is to demonstrate that the climate crisis constitutes a **health crisis that is poorly perceived**.

HYPOTHESIS

The working hypothesis of the thesis is as follows:

"The climate crisis (independent variable), as subjectively perceived by the journalists interviewed, does not determine a significant health crisis (dependent variable)."

EXPECTED RESULTS

By analysing the phenomenon of **media influence on opinion formation and change**, this study seeks to contribute to a deeper understanding of how journalists perceive the correlation between the climate crisis and a significant health crisis.

STATISTICAL METHODOLOGY

The research employed statistical analyses developed using **Microsoft Excel**. For the statistical validation, the **chi-square test (χ^2)** was applied, given the sample's size and typology, with an **alpha error (α)** at **r = 0.05**.

THEORY

To investigate the relationship between **mass media, the climate crisis, and the health crisis**, the research incorporated a theoretical study of media effects that could be applied to the empirical findings.

SOCIAL EFFECTS OF MEDIA

The **theories of social effects of media** were examined as explanatory frameworks for how mass communication can influence audiences and shape perceptions, both of aesthetic ideals and of socio-environmental phenomena such as the climate crisis.

Among these, broad-spectrum theories such as the **Spiral of Silence Theory** are also included. Although originally a theory of public opinion, it serves as a foundational paradigm for understanding media effects.

The historical development of these theories began as media presence in society expanded, raising questions about their individual and collective impacts. From the 1920s onward —when cinema and radio joined the press as dominant media— researchers began systematically analysing these influences.

Following a **cyclical approach**, media effects theories can be divided into four major phases:

1. **First Phase (1920s–1930s):** Dominated by the idea that mass media exert strong and direct effects, manipulating opinions and behaviours.

2. **Second Phase (1940s–1960s):** Focused on *limited* and *indirect* effects, where persuasion depends on psychological traits and interpersonal relationships.

3. **Third Phase (1970s–1980s):** Marked by a return to the notion of strong media effects —both direct and indirect— over the long term.

4. **Fourth Phase (1990s–present):** Emphasises *negotiated media influence*, in which audience activity balances media power (Denis McQuail's concept of *negotiated influence*).[2]

Alternatively, based on the **coexistence of theoretical conceptions**, media effects theories can be grouped into two broad categories:

- Theories supporting **media omnipotence**;

- Theories recognising **variables that mediate or filter media influence**.

Boundaries between these two groups are often blurred and interwoven, requiring further distinction between **short-term** and **long-term** effects.

Short-term theories focus on episodic communicative events, while long-term theories examine the cumulative effects of prolonged exposure.

Since the mid-1960s, attention to long-term effects has increased, leading to the development of the **Spiral of Silence**, **Cultivation**, and **Agenda-Setting** theories, fundamental for understanding how mass media influence opinion formation and individual perceptions.

HYPODERMIC THEORY

Developed between the two World Wars, within a context defined by the emergence of mass phenomena and their connection to propaganda and warfare, the **Hypodermic Theory** (also known as the *Magic Bullet Theory*) is grounded in the **Mass Society Theory**. This framework views society as a homogeneous collection of individuals, all essentially alike, despite originating from different social groups.

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[2] Denis McQuail, *Mass Communication Theory – An Introduction,* Londra, Sage Publications, 1994 (tr. it. Sociologia dei media, Bologna, Società Editrice il Mulino, 1996).

Within this model, the individual is conceptualized as a *mass man,* detached from traditions, behavioural norms, leadership, or organisational structure. Individuals form a disconnected crowd: spatially separated, socially isolated, and lacking interpersonal communication. They are therefore anonymous, atomised, and directly exposed to media influence, subject to manipulation and propaganda.

This theory was never an empirically verified model, but rather reflected a **dominant intellectual climate of the 1920s and 1930s**, deeply influenced by **behaviourism**. In 1913, **John Broadus Watson** published *Psychology as the Behaviorist Views It* in *Psychological Review*, followed in 1925 by *Behaviorism,* the foundational text of behavioural psychology, from which the Hypodermic Theory drew its principles.

Behaviourism rests on the **stimulus–response (S–R)** mechanism. Every human act is regarded as a behavioural response to environmental stimuli. From this principle follow several corollaries:

- Human behaviour is directly observable;

- Observations allow for the identification of regularities and patterns;

- These regularities can be expressed as laws;

- Such laws make it possible to explain and predict individual acts.

The Hypodermic Theory applies these behavioural concepts to communication, viewing the message as a **stimulus** that provokes an **automatic, passive response** in the audience. Communication is therefore asymmetrical (*one-way flow*), intrusive, and unmediated.

This model is built on the **Action Theory** of behaviourist psychology, represented schematically as:

Stimulus of the message → Response of the audience.

The model celebrates the immediacy and mechanical precision of manipulation: the message is metaphorically *injected*into the audience's consciousness via the medium, the "hypodermic needle." The research question thus becomes the measurement of the behavioural effects of media exposure.

The "magic bullet" metaphor encapsulates this concept: once fired, the message strikes its target directly and effectively, eliciting a predictable reaction. According to this view, the media possess **absolute persuasive power**, capable of influencing anyone.

This belief was also supported by the **psychology of instincts**, derived from Darwinism. Until the 1920s, it was commonly held that behaviour was governed by hereditary biological mechanisms operating between stimulus and response, thereby ensuring uniformity across individuals.

In this intellectual context, mass communication was understood as a **stimulus capable of inducing a desired response**in its audience. Media were thus endowed with **omnipotent persuasive power**, further reinforced by Freud's psychoanalytic theory. In *Group Psychology and the Analysis of the Ego* (1921), **Sigmund Freud** defined the unconscious and suggestion as core mechanisms of influence. He argued that unconscious drives determine behaviour without conscious awareness, making it possible to manipulate attitudes through carefully designed communication strategies.

This position aligns with the **Mass Society Theory**, which emerged in the late nineteenth century and described society as an aggregate of isolated individuals, interconnected through specialised mechanisms but devoid of unifying values. According to this view, strong and uniform stimuli delivered to the mass could provoke uniform responses among individuals, with limited voluntary control.

Indeed, as later communication scholars have noted,

"The mass media are not impartial or neutral entities; they are not empty vessels into which any content may be poured. They convey ideologies and are themselves ideological, independent of the content they transmit."[3]

The media's persuasive power alarmed early researchers. Consequently, in the early twentieth century, large-scale experiments were launched to study the processes and effects of mass communication. The first systematic investigations were conducted in the late 1920s by the **Payne Fund**, which studied the influence of cinema on children. Although initial findings suggested strong effects, further analyses revealed inconsistencies with the assumption of uniform, immediate, and direct influence.

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[3] Alejandro Gastón Jantus Lordi de Sobremonte, *L'influenza dei mass media nella genesi dell'ideale estetico*, Rome, Edizioni Logos, 2007.

Subsequent empirical research largely refuted the Hypodermic Model, yet its core concerns have regained relevance, especially regarding **vulnerable groups** such as children, adolescents, and the elderly.

For example, philosopher **Karl Popper**, in his intellectual testament *Television: A Bad Master* (1994), described television as:

"A colossal political power —perhaps the most influential of all— as if it were God himself speaking... It has become too great a power for democracy to survive without controls."[4]

Popper called for the establishment of a **Television Institute**, analogous to a medical order, to oversee broadcasters' ethical conduct, arguing that unchecked media power endangers democratic freedom.

Similarly, political theorist **Giovanni Sartori**, in *Homo Videns* (1997), shared Popper's concerns, observing that children, exposed to television before learning to read or write, become conditioned to perceive through images rather than concepts, forming a visually driven "homo videns."[5]

Sartori argued that such visual culture fosters desensitisation to violence and undermines abstract thought.

The Hypodermic Theory also draws from **Harold Lasswell's Model of Communication**, which analyses communication through the questions:

Who says what, in which channel, to whom, with what effect?

In this model:

- The message flow is **asymmetrical**, from an **active sender (stimulus)** to a **passive audience (response)**;

- The message has a **measurable purpose**;

- **Content analysis** reveals the message's intended goals;

- The **effect**, defined as behavioural change, is **singular and uniform**;

- The **recipients** are isolated and do not influence each other.

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[4] Karl Popper, *Cattiva maestra televisione,* Venice, Marsilio Editori, 2002.

[5] Giovanni Sartori, *Homo videns – Televisione e post-pensiero,* Rome, Gius. Laterza & Figli, 2004.

Later research in **Communication Studies** demonstrated that audience responses are neither passive nor immediate but are **mediated by resistance and interpretation**:

Stimulus → Resistance → Response.

This led to the progressive **overcoming of the Hypodermic Model** through three main approaches:

1. **Psychological-experimental approach**, which led to **Selective Influence Theory** by **Melvin DeFleur** and **Sandra Ball-Rokeach**, from which emerged:

   ○ The Theory of Individual Differences;

   ○ The Theory of Social Differentiation;

   ○ The Theory of Social Relations.

2. **Empirical field approach**, leading to the **Limited Effects Theory** formulated by **Joseph Klapper (1959)** and refined by **Paul Lazarsfeld** and **Elihu Katz** through the *Two-Step Flow Hypothesis*.

3. **Functionalist approach**, derived from the sociological functionalism of **Robert Merton** and **Talcott Parsons**, leading to the **Functionalist Media Theory** proposed by **Charles Wright** (1959). This school later influenced the **Uses and Gratifications Theory**, developed by Katz, which shifted the focus from *"what media do to people"* to *"what people do with media."*

SELECTIVE INFLUENCE THEORY

Following extensive empirical research on the processes and effects of mass communication conducted during the 1920s and 1930s, scholars obtained results that contradicted the assumptions of the Hypodermic Theory. Sociologists and psychologists reached entirely new conclusions about human social and psychological characteristics, establishing new paradigms that helped explain how exposure to mass media affects individuals and groups.

Although initially fragmented, these studies gradually formed a coherent body of knowledge about media and their effects, leading to a growing consensus on research methods and theoretical approaches.

Researchers discovered that through the **process of learning**, individuals acquire behavioural models from their environment that are not genetically inherited but socially and culturally assimilated. Hence, behaviour can be modified in countless ways as a result of experience and socialisation.

Individual differences therefore originate partly in learning processes. The key concept that replaced "instinct" and became central to later research was **attitude**, seen as a predictor of behaviour. In this new perspective, persuasive messages were no longer thought to change behaviour directly but to influence attitudes, which in turn mediate behavioural change.

It was concluded that **individual cognitive structures** and **social categories** —defined by demographic and cultural factors— are crucial determinants of media attention and message interpretation. The powerful role of **cognitive variables** and **subcultures** overturned the notion of a homogeneous passive audience. By the late 1940s, the old idea of a passive mass audience had given way to the concept of an **active audience**, which selects, interprets, and integrates messages based on personal and social contexts.

The **Selective Influence Theory**, developed by **Melvin DeFleur** and **Sandra Ball-Rokeach** based on a **psychological-experimental approach**, diminished the idea of the media's indiscriminate power to manipulate audiences, as proposed by the Hypodermic Theory. However, it still recognised that media can exercise influence and persuasion when messages are well constructed and tailored to the characteristics of the target audience.

At the core of this theory lies the assumption that **persuasion is possible** if the form and structure of the message align with the **personal factors** activated by the recipient during message interpretation.

This theoretical model arose from the conceptual limitations of the **stimulus–response** paradigm, which failed to account for the complexity of human cognition and communication. It also reflected the **empirical need** to understand audiences more deeply in order to communicate more effectively.

The resulting research tradition, inspired by **Carl Hovland's studies** for the U.S. Army's *Information and Education Division* during World War II, was characterised by:

1. The **centrality of the attitude–behaviour relationship**, and

2. A **strong experimental orientation**, producing numerous micro-studies rather than a single overarching theory.

The Selective Influence Theory rests on four key principles:

1. **Principle of Selective Attention:** Individuals, due to differences in cognitive structures, focus on different aspects of the same message.

2. **Principle of Selective Perception:** Individuals, influenced by cognitive factors such as interests, attitudes, needs, and values, interpret messages differently according to their cognitive structures.

3. **Principle of Selective Retention:** Memory varies across individuals, certain message contents are vividly remembered while others are forgotten depending on individual differences.

4. **Principle of Selective Action:** Not everyone acts in the same way after exposure to a particular message.

Thus, communication effectiveness depends not only on the persuasive power of the message itself but also on the interaction between the message and the recipient's internal cognitive and social variables.

The Selective Influence Theory is articulated through three interconnected sub-theories, each addressing distinct yet complementary aspects of media–audience interaction:

- The **Theory of Individual Differences**,

- The **Theory of Social Differentiation**, and

- The **Theory of Social Relations**.

THEORY OF INDIVIDUAL DIFFERENCES

The effort to apply the experimental method as a reliable means of gathering scientifically grounded knowledge led psychologists to study human **learning** and **motivation** mechanisms more closely. This debate was framed within the long-standing dichotomy of *nature versus nurture,* that is, whether human individuality originates from genetic inheritance or from environmental and cultural experience.

From the perspective of **Charles Darwin's evolutionary theory**, behaviour was largely seen as the product of inherited behavioural models, passed down through evolution. Within this framework, the concept of **instinct** was central, explaining both human and animal conduct as biologically driven.

In contrast, the **psychology of learning** —which became fundamental for communication and media studies— emphasised the predominance of culture over nature. According to this view, human beings acquire their individual characteristics and specific abilities through experiences in their social environment rather than through genetic inheritance.

The debate ultimately ended with the triumph of **social psychology**, which replaced the concept of instinct with that of **attitude,** defined as a process of individual awareness that determines actual or potential behaviour in a social world. Attitudes were thus regarded as **learned predispositions** playing a key role in shaping human conduct.

As recognition of the importance of learning increased, so did interest in **motivation**. It was found that biological needs can serve as primary motivations for behaviour in both animals and humans.

It became increasingly evident that every person possesses a distinct psychological profile. Although all individuals share the general behavioural models of their culture, each has a unique **cognitive structure** composed of specific needs, perceptual styles, opinions, values, and abilities.

Within this context, the **Theory of Individual Differences** identifies psychological factors that cause messages to interact differently with recipients. It defines four main psychological dimensions of the audience:

1. **Interest in acquiring information:** Less informed individuals may display varying levels of curiosity or motivation depending on the subject matter.

2. **Selective exposure:** Media influence or persuasion requires that audiences choose to expose themselves to specific media content. Messages aligning with recipients' preexisting opinions generally attract more interest and attention.

3. **Selective perception:** Audiences tend to perceive messages as more consistent with their own beliefs than they actually are, as long as the difference between message and personal opinion is not too great. This creates an **assimilation effect**, in which new information is

incorporated, and a **Festinger effect**, where cognitive dissonance leads to reduced discrepancy between belief and behaviour.

4. **Selective retention:** Opinions or ideas consistent with one's preexisting views are more likely to be remembered. This produces a **Bartlett effect** —where memory selectively retains the most meaningful elements for the subject— and a **latent persuasion effect**, whereby consistent messages exert prolonged influence over time.

Thus, individuals process messages through a complex network of filters, and persuasion is the outcome of interactions between message characteristics and individual cognitive structures.

THEORY OF SOCIAL DIFFERENTIATION

During the 1920s and 1930s, Western societies underwent major transformations that profoundly reshaped their social structures. Urbanisation, industrialisation, migration, and the emergence of social stratification and mobility contributed to increasing complexity and heterogeneity within modern societies.

Urbanisation was a natural consequence of **industrialisation**, just as **modernisation** resulted from the combination of both. Families transitioned from being units of production (rural, agricultural households) to units of consumption (urban residents), while migrations —often massive— brought together individuals of diverse origins, languages, and traditions, concentrating them in new urban centres.

These profound social changes produced new patterns of interaction and, consequently, **different media consumption behaviours**. Within this context, the **Theory of Social Differentiation** posits that individuals, depending on their **social category or class**, select particular media contents, interpret the same messages differently, retain them differently, and act differently after exposure.

Thus, belonging to a particular **social stratum** influences the way people perceive and use media. For example, differences in education, income, and occupation can lead to distinct interpretations of the same piece of information.

This theory highlights that **social stratification** —rather than simply individual psychology— plays a central role in shaping media effects. Consequently, media influence is neither uniform nor absolute but mediated by **social differentiation**, which determines the channels, interpretations, and outcomes of communication processes.

THEORY OF SOCIAL RELATIONS

In 1940, **Paul Felix Lazarsfeld**, **Bernard Berelson**, and **Hazel Gaudet** conducted a large-scale research project in **Erie County, Ohio**, to examine the effects of mass communication during the U.S. presidential election that year. The study used one of the first **longitudinal panel designs**, interviewing **600 participants** at monthly intervals throughout the campaign to analyse the effects of exposure to newspapers, magazines, and radio broadcasts covering the contest between **Wendell Willkie** and **Franklin D. Roosevelt**.

The researchers initially expected the media to produce direct and measurable effects on:

- citizens' participation in the campaign,

- their requests for information on the candidates or issues,

- their voting decisions, and

- voter turnout.

However, the results revealed unexpected findings. Rather than showing direct conversion effects, the study identified three new types of media influence:

1. **Activation:** Media exposure made latent predispositions explicit, reinforcing pre-existing tendencies.

2. **Reinforcement:** Individuals who had already decided early in the campaign became more confident in their choice after media exposure.

3. **Limited Conversion:** Only a small minority of respondents changed their voting intention as a result of media influence.[6]

From this empirical basis emerged the **Theory of Social Relations**, centred on the **two-step flow of communication**:

1. Information first flows from the media to **better-informed individuals**, or *opinion leaders*;

2. It then passes from these opinion leaders —through interpersonal communication— to less directly exposed individuals.

This **two-step communication model** implies that mass media effects are **mediated by social networks** and interpersonal influence. Opinion leaders act as filters and amplifiers of media content, interpreting and transmitting messages according to their social context.

Therefore, the media's influence depends not only on message exposure but also on **interpersonal communication** within **primary groups** (families, workplaces, communities).

The Theory of Social Relations thus demonstrated that **social interaction mediates media effects**, laying the groundwork for a shift from the *one-step* to the *multi-step* understanding of communication flows.

THEORY OF LIMITED EFFECTS

The analyses conducted by **Lazarsfeld**, **Berelson**, and **Gaudet** —which led to the formulation of the *Theory of Social Relations*— demonstrated that interactions with more informed or influential individuals had a significant impact on electoral choice, while mass media alone had a relatively limited influence on changing political preferences.

From these findings emerged the **Theory of Limited Effects**, developed as a direct counterpoint to the behaviourist *Hypodermic Theory*. This model proposed that the flow of communication operates through a two-stage process:

Mass Media → Opinion Leaders → Audience

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[6] Paul Felix Lazarsfeld, Bernard Berelson e Hazel Gaudet, *The people's choice: the media in a political campaign*, New York, Columbia University Press, 1944.

In this framework, the influence of mass media is **not direct**, but **mediated** by **opinion leaders**, individuals who consume media more intensively, interpret content, and relay it to others through personal networks. The leaders' interpretations often filter or reshape the original media messages, thereby reducing the uniformity and directness of media impact.

According to **Joseph Klapper** (1959), this model shows that mass communication functions more as a **reinforcing agent**than as a **driving force** of change. Media effects are limited and contingent upon pre-existing **social structures**, **group affiliations**, and **psychological predispositions**.

Klapper argued that mass media rarely serve as necessary or sufficient causes of audience change. Instead, they work through a **selective process**, reinforcing attitudes already established through interpersonal relationships, social norms, and cultural values.

This theory thus rejected the notion of omnipotent media effects, emphasising instead that **individuals interpret, resist, or mediate** the messages they receive. The **"limited effects"** perspective became one of the central paradigms of media sociology throughout the 1950s and 1960s.

FUNCTIONALIST THEORY

During the 1960s, under the influence of **structural functionalism** within sociology, the focus of media research shifted from the **effects** of mass media to their **functions**. Structural functionalism viewed society as a complex system composed of interdependent parts (subsystems), each performing specific functions to maintain the stability and equilibrium of the whole.

According to this perspective, every social institution —including the media— contributes to the **maintenance of the system**, performing both **manifest functions** (intended and conscious) and **latent functions** (unintended or unconscious).

In the field of media studies, **Charles Wright (1959)** formalised this approach in his *Functionalist Theory of Communication*. Wright argued that the mass media could be studied not only in terms of their social impact but also in relation to the **functions and dysfunctions** they perform for both society and the individual.

Four main phenomena frame this analysis:

1. The existence of a **global media system**;

2. The presence of **specific communication types** (television, radio, print, cinema, etc.);

3. The existence of an **institutional framework** regulating media operations;

4. The **predominance of mass communication** over other forms of social interaction.

From a **societal perspective**, mass media perform functions such as:

•   **Alerting citizens** in case of significant events (surveillance);

•   **Providing tools for institutional and everyday activities** (correlation).

From an **individual perspective**, the media serve functions such as:

A. **Conferring prestige or status** upon individuals who receive media attention;

B. **Enhancing one's sense of being well-informed**, which in turn grants higher social prestige;

C. **Reinforcing social norms and ethics**, thus contributing to social integration.

The **Functionalist Theory** remains one of the most influential approaches in media sociology. Its analytical framework extended into later theories —particularly the **Uses and Gratifications Theory**— which further explored how individuals interact with media content to satisfy their own needs.

USES AND GRATIFICATIONS THEORY

As a direct development of the functionalist perspective, the **Uses and Gratifications Theory** focuses on what individuals do with the media rather than what the media do to individuals. This shift of perspective was initiated by **Elihu Katz**, **Michael Haas**, and **Hadassah Gurevitch**, who presented their findings at the *XX International Congress of Psychology* in Tokyo in August 1972, based on a leisure-time use survey commissioned by the Israeli Ministry of Education and Culture.[7]

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[7] Elihu Katz, Hadassah Haas e Michael Gurevitch, "On the Use of the Mass Media for Important Things", *American Sociological Review,* vol. XXXVIII, n° 2, Columbus (Ohio), The Ohio State University, 1973.

According to Katz, Haas, and Gurevitch, media consumption serves to satisfy **five classes of human needs**:

1. **Cognitive needs** (acquiring and reinforcing knowledge);

2. **Affective–aesthetic needs** (emotional and aesthetic experience);

3. **Personal integrative needs** (stability and self-confidence);

4. **Social integrative needs** (maintaining interpersonal relationships);

5. **Escapist needs** (relaxation and diversion from daily stress).

They argued that:

A. The audience is **active**;

B. Media use is **goal-directed**;

C. Individuals are **aware of their motives and needs**.

Later, in 1974, **Karl Erik Rosengren** modelled the process of uses and gratifications as a dynamic cycle linking **human needs**, **intraindividual characteristics**, **social structures**, and **media systems**.

In this framework, audiences actively select media and content to meet personal and social needs, seeking information, emotional engagement, identification, or simple entertainment.

This theory reversed the traditional model of passive media influence, portraying the audience as **autonomous and selective**. Media compete with other social and personal activities to fulfil needs, and individuals are seen as capable of evaluating and choosing among them.

According to **Denis McQuail**, media perform four primary functions:

α) **Information (surveillance)** – providing knowledge and news;

β) **Identification (personal connection)** – reinforcing identity and belonging;

γ) **Entertainment (diversion)** – offering relaxation and emotional release;

δ) **Cultural transmission (education)** – fostering moral and cultural learning.

Empirical studies —such as **James Lull's** *Inside Family Viewing* (1990)— expanded this framework by identifying **social uses of television**, distinguishing between:

- **Structural uses** (background noise, time regulation, routine);

- **Relational uses** (facilitating communication, fostering family solidarity).[8]

Although the Uses and Gratifications approach has been criticised for its descriptive nature and lack of predictive power, it remains a valuable model for understanding **how audiences interact with media to satisfy cognitive, emotional, and social needs**.

CRITICAL THEORY

The project of **Critical Theory**, developed by the **Frankfurt School**, revisited **Karl Marx's social analysis**, stripping it of its orthodox economic determinism and extending its application to multiple disciplines, including philosophy, sociology, psychology, and cultural studies.

The leading figures of the Frankfurt School included **Theodor W. Adorno**, **Max Horkheimer**, **Herbert Marcuse**, **Leo Löwenthal**, **Erich Fromm**, and **Friedrich Pollock**, thinkers who sought to explain how modern capitalist societies achieve social control not merely through coercion but through culture and ideology.

Critical Theory positioned itself in opposition to *traditional theory*, which it accused of reproducing myths of objectivity and neutrality. Instead, it argued for a **dialectical and emancipatory approach**, grounded in the critique of science, culture, and society. Its central aims included:

- Critiquing the positivist conception of science and its ideological neutrality;

- Interpreting society as an integrated whole rather than through fragmented disciplines;

- Overcoming the **crisis of reason** produced by instrumental rationality;

- Reorganising society toward emancipation;

- Situating every social phenomenon within the **specific social and historical contexts** that produce it.

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[8] James Lull, *Inside Family Viewing: Ethnographic Research on Television's Audiences,* London, Routledge, 1990.

Within this framework, **mass communication** was understood as a means for disseminating messages that sustain the **cultural industry** *(Kulturindustrie),* a term coined by Adorno and Horkheimer in *Dialectic of Enlightenment* (1944). According to this view, the culture industry imposes mass-produced cultural goods that shape public taste, generate conformity, and inhibit critical thought.

Consumption is therefore not a free act but one **dictated by industrial standardisation**. The homogenisation of culture becomes a psychological mechanism of social control: audiences are pacified and integrated into the system through entertainment and pseudo-individualised products.

From Critical Theory emerged the **Conspiracy Theory of the Media**, which interprets mass media as instruments of elite domination. Media are used by political and economic powers to maintain control by promoting ideologies and stereotypes that serve their interests.

By the early 1980s, communication scholars applying the **critical paradigm** began to investigate the media's role in **constructing social reality** rather than simply representing it. The assumption of an objective, natural reality was replaced by an understanding of **reality as socially constructed through discourse and representation**.

Critical Theory demonstrated that mass media are not mere reflections of the social world but **active agents in the production of social consensus**. As Adorno observed, in mediated societies, *"the credible becomes the true."*[9]

Thus, the media contribute to the manufacture of consent, not by imposing direct coercion but by framing public perception through the repetition of ideological narratives that sustain hegemonic power.

CULTUROLOGICAL THEORY

The **Culturological Theory** approaches mass culture from an **anthropological perspective**, interpreting the relationship between the audience and media as analogous to that between the consumer and the object of consumption. Within this context, mass culture is seen as a system that is:

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[9] Christine Hall, cited in Roberto Grandi, *Mass media tra testo e contesto*, Milan, Lupetti Editore, 1994.

- **Produced** according to industrial and standardised norms;

- **Disseminated** through mass media;

- **Addressed** to a socially undifferentiated mass of individuals, regardless of internal class or familial structures.

Mass culture —sometimes referred to as the *culture of leisure*— is no longer perceived as a static body of texts or ideas, but as a **continuous social process** of production, distribution, and consumption. According to **Edgar Morin**, it represents "the most widespread cultural system of contemporary societies, the very spirit of our time."

Morin wrote:

"A culture constitutes a complex body of norms, symbols, myths, and images that penetrate individuals in their intimacy, shape their instincts, and guide their emotions. This penetration occurs through exchanges of projection and identification focused on cultural symbols and myths, as well as on mythical or real personalities that embody those values."

Mass culture thus provides **practical points of support for the imaginary life** of individuals, offering both real and symbolic models of identification. It feeds what Morin describes as "the half-real, half-imaginary being" that each person constructs within and outside themselves, their "soul" and their "personality."

Mass culture expresses itself through **polysemic languages** that resonate with the **collective imagination**, making it both creative and inventive. However, because it is also an **industrial product**, it must:

- Reconcile **standardisation with innovation**;

- Seek a **common denominator** that harmonises diverse sources (syncretism);

- Operate through **simplification**, often producing **manicheism**, a tendency to divide reality into absolute opposites.

As philosopher **Giovanni Reale** observed, this process contributes to the **devaluation of traditional values**:

"Contemporary culture has lost the sense of those great values that, in ancient, medieval, and early modern ages, constituted essential and largely irreplaceable points of reference in thought and in life."[10]

Already in the 1930s, **José Ortega y Gasset** had anticipated this transformation in *The Revolt of the Masses* (1930), warning that Europe, deprived of its *ethos*, was giving birth to a new "mass man", a being incapable of believing in anything, guided only by the pursuit of personal satisfaction and by ingratitude toward the civilisation that made his comfort possible.[11]

This **massification of values**, according to **Gianfranco Morra**, has led modern society to a state of **spiritual perplexity and disillusionment**, unable to commit, indifferent, "capable of believing everything and, at the same time, of believing nothing."[12]

Nevertheless, the **culture of leisure** remains a dominant cultural system, offering entertainment and myths that serve the **collective imagination**. The cultural industry functions as a **modern equivalent** of ancient narrative forms: the classical theatre, the epic poem, and the popular novel.

It provides new **identificatory and projective models**, usually with positive resolutions or *happy endings*. Consumption of these cultural products becomes, simultaneously, **self-consumption of individual life** and a form of **self-realisation**.

As Morin noted, mass culture renders a portion of life **fictional**, projecting audiences into imaginary universes and multiplying their psychological "doubles" who live vicariously through the media.

The culturological approach thus interprets the **cultural industry** as closely linked to the **collective imagination**, defined as the totality of social values, needs, and symbolic practices. Through mechanisms of **projection** (escapist function) and **identification** (integrative function), the audience both escapes from and integrates into social reality by engaging with media representations.

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[10] Giovanni Reale, *Saggezza antica - Terapia per i mali dell'uomo d'oggi,* Milan, Raffaello Cortina Editore, 1995.

[11] José Ortega y Gasset, *La rebelión de las masas,* Madrid, Espasa-Calpe, 1930 (tr. it. *La ribellione delle masse,* Bologna, Società Editrice il Mulino, 1962).

[12] Gianfranco Morra, "Postmodernità e indifferentismo religioso" in *Firmana - Quaderni di Teologia e Pastorale,* Fermo, Istituto Teologico Marchigiano, 1998.

SPIRAL OF SILENCE THEORY

The **Spiral of Silence Theory**, formulated by **Elisabeth Noelle-Neumann**, founder of the *Institut für Demoskopie Allensbach* in 1947, represents a fundamental turning point in communication theory. It marked the reaction against the dominance of the *Limited Effects Paradigm* and the return to the notion of **powerful media effects**.

The theory focuses on the **indirect mechanisms** through which the media shape the audience's perception of the social environment, thereby producing **long-term effects** on public opinion formation.

Two key assumptions define the model:

1. The introduction of **television** constituted a radical and irreversible shift in the media system, significantly amplifying the range and intensity of media influence.

2. The concept of **public opinion** must be understood in a **sociopsychological** sense, as a mechanism of social control that enforces conformity.

Noelle-Neumann argued that television's ubiquity undermines the principle of **selective perception** underlying the *Limited Effects Theory*. As exposure becomes universal and continuous, individuals can no longer easily avoid or counter media messages, leading to **stronger and cumulative effects**.[13]

The theory introduced two essential concepts:

- **Cumulative Effect** – resulting from the continuous and prolonged exposure to recurring messages over time;

- **Consonance Effect** – arising when different media outlets present similar perspectives on the same issues.

Both phenomena **neutralise selective perception**, thereby increasing the potential for the media to influence attitudes and beliefs.

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[13] Elisabeth Noelle-Neumann, "Turbulence in the climate of opinion: Methodological Application of the Spiral of Silence", *Public Opinion Quartely,* n° 41, Oxford, Oxford University Press, 1977.

According to the **Spiral of Silence model**, public opinion is formed through the interaction between individuals' perceptions of their **social environment** and their **willingness to express opinions**. People continuously monitor their surroundings to assess which opinions are socially accepted or marginalised. When individuals perceive that their opinions are in the minority, they tend to remain silent to avoid **social isolation**.

Thus, **public opinion** emerges not as a spontaneous consensus but as a dynamic process of **social alignment**. The need for social acceptance and the fear of isolation lead individuals to conform to perceived dominant opinions.

In this framework, mass media play a decisive role. They provide the **reference points** for what is considered acceptable or mainstream, establishing the **climate of opinion** within which individuals adjust their expressed attitudes and behaviours.

Noelle-Neumann demonstrated that when the media continuously amplify certain perspectives while marginalising others, a **self-reinforcing spiral** occurs: individuals who share the dominant viewpoint express it openly, while dissenters fall silent, further increasing the perceived dominance of the majority opinion.

This phenomenon can be summarised through two corollary effects:

A) **High media visibility → amplification effect**
B) **Low media visibility → reduction effect**

The Spiral of Silence Theory therefore attributes to mass media a **formidable social power**, capable of shaping collective perceptions by controlling visibility and representation. It reaffirms the concept of **media omnipotence**, not through direct persuasion, but by subtly manipulating **social perception and self-censorship mechanisms**.

CULTIVATION THEORY

Developed in the 1970s by **George Gerbner** and researchers at the **Annenberg School for Communication** (University of Pennsylvania), the **Cultivation Theory** deepened the analysis of long-term media influence, particularly through television.

Gerbner argued that television had become the **primary agent of socialisation**, surpassing traditional institutions such as the family, school, and church. Through daily and repetitive exposure, television provides audiences with **consistent symbolic environments** that shape perceptions of reality.

According to Gerbner, the content broadcast by television "cultivates" specific conceptions of the world, imposing both **categories of description** and **standards of judgment**. Over time, heavy exposure to television leads individuals to internalise the **televised version of reality**.

The **fiction genre** plays a particularly significant role, as it constructs simplified and stereotyped representations of the social world. Consequently, television exerts an **accumulative and normalising influence**, blurring distinctions between reality and its mediated representation.

To analyse this process, Gerbner introduced two key research concepts:

- **Cultural Indicators** – content variables systematically measured across television programming (e.g., violence, gender roles, crime);

- **Cultivation Analysis** – audience surveys examining how exposure correlates with perceptions of reality.

His research distinguished between two categories of viewers:

1. **Heavy viewers**, who watch more than four hours of television per day;

2. **Light viewers**, who watch less than four hours per day.

The findings showed that heavy viewers are more likely to:

- Overestimate the prevalence of violence and crime;

- Exhibit higher levels of fear and mistrust;

- Hold more stereotypical or conservative views of society.

Gerbner concluded that television contributes to **"mainstreaming"**, the process through which diverse audiences develop homogeneous perceptions of reality, and **"resonance"**, when television images reinforce real-world experiences.

Cultivation Theory thus demonstrates that television does not merely reflect reality: it **constructs** it. The result is the **reinforcement of the status quo**: instead of promoting social change, television stabilises existing social structures by legitimising dominant ideologies.

AGENDA-SETTING THEORY

In the early 1970s, **Maxwell McCombs** and **Donald Shaw** expanded the study of media influence by examining how mass media shape **public priorities**. Their landmark study, *The Agenda-Setting Function of the Mass Media* (1972), proposed that the media do not tell people *what to think*, but rather **what to think about**.[14]

According to Agenda-Setting Theory, mass media act as **cognitive filters** by emphasising certain topics, thereby defining their relative importance within public discourse. Through repeated exposure, audiences adopt media agendas as their own.

This process operates on two levels:

1. **Issue Agenda** – the selection of topics and events to be reported;

2. **Attribute Agenda** – the framing and hierarchical ordering of these topics.

Thus, issues that receive greater coverage —such as economic crises, migration, or climate change— are perceived by the public as more important.

However, Agenda-Setting Theory also recognises the role of **intervening variables**, such as personal interest, prior knowledge, and interpersonal communication. For example, individuals may prioritise issues that are personally relevant even if they receive less media attention.

McCombs and Shaw emphasised that media influence is cumulative and long-term: continuous exposure to the same topics shapes not only what audiences think about but also **how they evaluate and interpret** the world around them.

Later research integrated Agenda-Setting Theory with the Spiral of Silence and Cultivation models, showing that agenda-setting is reinforced by **interpersonal communication** and **social conformity**

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[14] Maxwell McCombs e Donald Shaw, "The Agenda-Setting Function of the Mass Media", *Public Opinion Quarterly,* n° 36, Oxford, Oxford University Press, 1972.

pressures. In this integrated perspective, mass media are seen as **central institutions in the construction of social reality**, not merely reflecting events but actively shaping public consciousness.

In the analysis of the most discussed topics, interpersonal relationships highlighted by Lazarsfeld and social behaviors, such as the tendency towards conformism analyzed by Noelle-Neumann in the context of the Spiral of Silence Theory, are also of fundamental importance, as well as "the ever-increasing role of ethnic minorities who have long been able to determine important international consequences".[15]

RESEARCH AND QUESTIONNAIRE

The research instrument chosen for this study was a **multiple-choice questionnaire** distributed to **7,644 journalists**working for press agencies, daily newspapers, periodicals, radio stations, television networks, and online media outlets.

The expected response rate was approximately **8%**, while the actual response rate reached **7.17%**. Consequently, the final sample —representing **0.5% of the total population** of **104,542 journalists** (*Agenda del Giornalista*, July 20, 2024)— comprised **548 respondents**.

Each participant was guaranteed **anonymity** and asked to answer **a single multiple-choice question** as sincerely as possible.

The question and its five response alternatives were as follows:

As a professional communicator who contributes directly to shaping collective awareness, do you believe that the climate crisis can generate a significant health crisis?
(For the purpose of this question, *"health crisis"* refers to a crisis in health as defined by the **World Health Organization**: "a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity.")

Response options:

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15 Alejandro Gastón Jantus Lordi de Sobremonte, *Guerra y paz: los conflictos de la última década*, Buenos Aires, Editorial CNN, 2001.

1.   Yes, climate change is a concrete threat to health and is already producing a significant health crisis.

2.   Yes, climate change is an imminent threat to health that may soon produce a significant health crisis.

3.   No, climate change is only a potential threat.

4.   No, climate change is not at all capable of producing a significant health crisis.

5.   Uncertain.

FREQUENCY OF RESPONSES

The data obtained from the **548 journalists** were processed to determine the **absolute frequency** (number of responses for each alternative) and **relative frequency** (percentage of total responses).

#	RESPONSE	CASES	PERCENTAGE
1	YES, CONCRETE THREAT	58	10.58%
2	YES, IMMINENT THREAT	149	27.19%
3	NO, POTENTIAL THREAT	267	48.72%
4	ABSOLUTELY NO	62	11.31%
5	UNCERTAIN	12	2.19%
TOTAL		**548**	**100.00%**

RE-CATEGORISED FREQUENCIES

Responses were reclassified into **two dichotomous groups ("YES" vs. "NO")**, excluding the small number of uncertain responses (2.19% of the total), given their negligible statistical relevance.

#	RESPONSE	CASES	PERCENTAGE
1+2	YES	207	38.62%
3+4	NO	329	61.38%
TOTAL		**536**	**100.00%**

DATA ANALYSIS AND INTERPRETATION

The empirical analysis produced **quantitative results** that allowed for a meaningful assessment of the investigated sentiment.

Only **10.58%** of journalists considered climate change a concrete and current threat to health capable of generating a significant health crisis.

The remaining **89.42%** did not consider it a concrete current threat. Including those who viewed it as an imminent threat (27.19%), the overall proportion recognising any health-related risk reached **37.77%**.

Therefore, a substantial majority (**62.23%**) of journalists did **not** perceive climate change as either a current or imminent health threat.

When dichotomised ("YES" vs. "NO"), **61.38%** of respondents denied or underestimated the correlation between climate change and a significant health crisis, while only **38.62%** acknowledged it.

These findings confirm the **hypothesis** that the climate crisis is **a poorly perceived health crisis** among professional communicators, those primarily responsible for shaping public understanding of the issue.

STATISTICAL DEMONSTRATION

To validate these findings, a **chi-square (χ^2) test** was applied to determine whether the distribution of responses deviated significantly from random expectation.

The **null hypothesis (H_0)** and **alternative hypothesis (H_1)** were formulated as follows:

H_1**:** The frequencies differ significantly across groups.

H_0**:** The frequencies do not differ significantly across groups.

Total observed frequencies (**N**) = 548

Number of categories (**S**) = 5

Expected frequency (**FA**) = N / S = 548 / 5 = 109.6

The χ^2 value was calculated using the formula:

$$\chi^2 = \Sigma\,[(FO - FA)^2 / FA]$$

Substituting observed values:

$$\chi^2 = [(58-109.6)^2 / 109.6] + [(149-109.6)^2 / 109.6] + [(267-109.6)^2 / 109.6] + [(62-109.6)^2 / 109.6]$$
$$+ [(12-109.6)^2 / 109.6] =$$
$$= (2662.56 / 109.6) + (1552.36 / 109.6) + (24774.76 / 109.6) + (2265.76 / 109.6) + (9525.76 / 109.6) =$$
$$= 24.29 + 14.16 + 226.05 + 20.67 + 86.91 =$$
$$= \chi^2 = \mathbf{372.09}$$

Significance level ($\boldsymbol{\alpha}$) = 0.05
Degrees of freedom (**df**) = 4

Because **χ^2 (372.09) > critical value**, the **null hypothesis (H_0)** is **rejected**, confirming that the frequency distribution among response categories is statistically significant.

RESULTS AND CONCLUSIONS

AVOIDABLE CAUSES

The scientific community now has no doubt that the **climate crisis** represents a major threat to the **habitability of vast regions** of our planet, with devastating impacts already visible worldwide, including in Italy.

The stakes are extraordinarily high: **environmental factors cause the death of more than 13 million people every year**. According to a **United Nations report (June 16, 2006)**, over 13 million annual deaths globally result from preventable environmental causes, and the lives of about **4 million children** —mostly in developing countries— could be saved by preventing such ecological risks.

The UN estimates have remained consistent over the years and have been confirmed by other international agencies, including the **World Health Organization (WHO)**.

The correlation between the **climate crisis** and the **health crisis** is thus both real and significant. It has even been highlighted by the **United Nations Interregional Crime and Justice Research Institute (UNICRI)**, which has identified environmental crime as one of the **most profitable activities of global organised crime**, with major repercussions not only for ecosystems but also for public health.

Similarly, so-called **natural disasters** are increasingly seen as **anthropogenic in origin**, driven or exacerbated by human activity. As noted by *The Lancet*, one of the world's leading medical journals,

"Climate change is the greatest global health threat of the twenty-first century."[16]

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[16] The Lancet Countdown on health and climate change, url www.thelancet.com/countdown-health-climate last consulted on October 27th 2025

RESULTS

The vast majority (**89.42%**) of journalists —those primarily responsible for shaping **collective awareness**— do **not**consider climate change to be a concrete current threat capable of causing a significant health crisis.

Only **27.19%** perceive it as an *imminent danger*, while nearly half (**48.72%**) regard it merely as a *potential threat*.

This confirms the **low level of perception** among professional communicators regarding the **correlation between climate change and health impacts**.

Yet, the effects of climate change are already evident:

- air pollution,

- respiratory and cardiovascular diseases,

- extreme weather events,

- forced migrations,

- mental health problems, and

- increased hunger and malnutrition in areas where agriculture and food security are deteriorating.

The **United Nations Regional Information Centre (UNRIC)** —which has replaced the former nine European information centres based in Athens, Bonn, Brussels, Copenhagen, Lisbon, London, Madrid, Paris, and Rome— has stated unequivocally that:

"Climate change constitutes the greatest threat to human health."

Health systems, both national and global, are already facing growing difficulties in coping with the **spread of diseases**and **rising mortality** linked to extreme weather phenomena and the broader effects of the climate crisis.

INTERPRETATION

The **limited perception among journalists** of the relationship between climate change and health represents a deeply concerning issue, as it likely mirrors the awareness gap within the broader population.

There is therefore an **urgent need for intervention**, as **health is a non-negotiable public good**. Society requires **better-trained and more competent science communicators,** professionals capable of engaging effectively with the press and informing the public about the **direct and indirect effects** of climate change on health.

Raising public awareness of the **link between environmental degradation and human health** should be considered a top priority for public health policy.

CONCRETE HEALTH PROBLEMS CAUSED BY CLIMATE CHANGE

How does climate change concretely affect human health? The following aspects are among the most critical:

I) HEAT STRESS

Global warming exposes populations to increasingly high temperatures, which lead to serious health problems and mortality, especially among **the elderly and children**, who are physiologically more vulnerable.

For instance, a study published in *Nature Medicine* by the **Barcelona Institute for Global Health (ISGlobal)** estimated at least **47,690 deaths due to heat** between May and October 2023 across Europe, with **Italy recording the highest number** (12,743 deaths), followed by Spain and Germany. Two major heat waves in mid-July and late August alone accounted for **57% of total heat-related deaths**.[17]

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[17] Fondazione Veronesi, url www.fondazioneveronesi.it/magazine/articoli/da-non-perdere/morire-di-caldo-in-europa-47-mila-decessi-nellestate-2023 last consulted on October 27th 2025

II) AIR POLLUTION

Heat stress also worsens **air pollution**, especially during late spring and summer. Under high-pressure conditions and poor ventilation, pollutants accumulate, and strong solar radiation triggers **photochemical reactions** that increase **ozone concentrations** far above natural levels (20–80 µg/m³).

According to the **Italian Society of Environmental Medicine (SIMA)**,

"Air pollution is the world's leading environmental health emergency, causing more than 7 million deaths each year."[18]

III) FOOD INSECURITY

Rising temperatures, altered rainfall patterns, and extreme weather events are already reducing agricultural yields and lowering food quality. **Climate change** not only diminishes food availability but also reduces its nutritional value.

The **Food and Agriculture Organization (FAO)** warns that this leads to increased **malnutrition**, **growth disorders in children**, and greater vulnerability to **diseases** such as diabetes, cancer, and heart failure.

Fish stocks in subtropical regions are also declining, threatening the food security of coastal communities that rely on fishing for protein intake.

IV) VIRUSES, BACTERIA, AND INFECTIONS

Global warming also facilitates the **spread of infectious diseases**. Melting permafrost can release **ancient pathogens**, while warmer climates allow **vectors** (mosquitoes, ticks, sandflies) to expand their range.

In Europe, the **tiger mosquito** is spreading, bringing diseases such as **Dengue**, **Chikungunya**, and **West Nile Fever**, while sandflies and ticks transmit **leishmaniasis** and **Lyme disease**.

Warm marine waters are also increasingly hospitable to **Vibrio bacteria** in fish and shellfish, which can cause serious human infections.

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[18] Quotidiano Sanità, url www.quotidianosanita.it/studi-e-analisi/articolo.php?articolo_id=115556 last consulted on October 27th 2025

As *Corriere della Sera Salute* reported (November 28, 2022):

"The rise in temperatures could awaken pathogens that have been dormant for tens of thousands of years. Seven 'giant viruses' have been revived from permafrost samples and successfully replicated in the laboratory."[19]

V) ZOONOSES

Diseases transmitted from animals to humans (*zoonoses*) are also on the rise. Warmer temperatures affect **vector behaviour, survival, and reproduction**, while milder winters increase the populations of rodent carriers, contributing to outbreaks of **Hantavirus** and other zoonotic diseases.

Waterborne and foodborne bacterial infections —such as **Salmonella**, **Campylobacter**, and **Escherichia coli**— also exhibit **seasonal incidence patterns**, increasing by up to **10% for every 1°C rise** in weekly mean temperature.

VI) MENTAL ILLNESSES

Climate change has measurable **psychological effects**. A study by the **Massachusetts Institute of Technology (MIT)**, based on ten years of data from more than **2 million U.S. citizens**, found that every 1°C increase in average temperature corresponded to a **2% increase** in moderate mental health disorders, including depression, anxiety, insomnia, and phobias.[20]

The perception of environmental instability, biodiversity loss, and extreme events also contributes to **eco-anxiety** and **climate-related distress**.

FREEING THE MEDIA FROM INDUSTRIAL CONSTRAINTS

Despite its magnitude, the **climate crisis rarely reaches the front pages** of newspapers, even when its consequences are catastrophic. It receives little space in print and broadcast media, and when it does appear, coverage often fails to connect causes and effects, linking the **climate crisis**, **extreme events**, and **health emergencies**.

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[19] Il Corriere della Sera Salute, url www.corriere.it/salute/malattie_infettive/22_novembre_28/virus-congelato-permafrost-12c81e94-6e65-11ed-9a2e-9215bb841eb8.shtml last consulted on October 27th 2025

[20] Ansa Salute, url www.ansa.it/canale_saluteebenessere/notizie/medicina/2018/10/10/cambiamenti-clima-e-disturbi-mentali-studio-mit-li-collega_f23e2aaf-bb64-40f0-abbe-52dcfd82faa6.html last consulted on October 27th 2025

Between January 1 and April 30, 2024, only **14 front-page articles** across Italy's five leading newspapers placed the climate crisis at the centre of coverage:

- *Il Sole 24 Ore* (5 articles),

- *Avvenire* (3 articles),

- *La Stampa* (3 articles),

- *La Repubblica* (2 articles),

- *Corriere della Sera* (1 article).[21]

In contrast, advertisements from the **most polluting industries** —oil, gas, automotive, aviation, and cruise sectors— appear almost daily. This indicates a structural dependence on fossil-fuel advertising revenues and, in some cases, **greenwashing campaigns** that distort public understanding of the crisis.

Such financial dependence compromises journalistic independence. As a result, fossil fuel companies are seldom identified as the **primary contributors** to global warming, and news coverage becomes **sanitised and depoliticised**, preventing citizens from fully grasping the gravity of the problem.

This research thus calls for **liberating the media from the conditioning power of polluting industries** and promoting an **impartial, truthful, and scientifically grounded information system**, one that allows society to perceive the climate crisis for what it truly is:

An emergency demanding immediate action, and a health crisis in every respect.

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[21] Azzalini, Monia e Marchese, Mirella, *L'informazione sulla crisi climatica e sulla transizione ecologica (1° gennaio - 30 aprile 2024),* Osservatorio di Pavia per Greenpeace Italia, url www.greenpeace.org/static/planet4-italy-stateless/2024/07/bdf06ce2-report-media-q1-2024.pdf last consulted on October 27th 2025

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ABOUT THE AUTHOR

Dr. Alejandro Gastón Jantus Lordi de Sobremonte is a researcher and the current President of the *International Center for Social Research*. He is also the Chief Executive Officer of *NETMEDIACOM SRL*, an innovative startup publishing company. In addition, he serves as Editor-in-Chief of several publications, including the daily news agency *Sharing Media*, the online newspapers *AJCOM* and *Netmediacom*, and the monthly magazines *Kairos*, *L'Idealista*, and *L'Idealista Web.*

He graduated *summa cum laude* from the **Universidad del Salvador** (USAL) in Buenos Aires, earning a ***Bachelor of Arts in Sociology.*** He also holds a ***Bachelor's Degree in Communication Sciences*** from the **University of Cassino** *(summa cum laude),* a ***Postgraduate Diploma in Scientific Communication (Master CoSe)*** from the **University of Parma** - Department of Medicine and Surgery *(summa cum laude),* and a ***Doctor of Philosophy Equivalent Degree in International Relations*** from the **Universidad del Salvador** (USAL) in Buenos Aires. He is currently completing a ***Master's Degree in Media, Digital Communication and Journalism*** at the **University of Rome «La Sapienza».**

Since February 2014, Dr. Jantus Lordi de Sobremonte has served as Delegate for Communication of the ***World Organization for International Relations (WOIR),*** where he also held the positions of Assistant to the President for Media Affairs and Senior Advisor to the Secretary-General for Energy and Climate Change. In 2015, he was elected President of the WOIR.

As a journalist, Dr. Jantus Lordi de Sobremonte has worked for more than thirty-five years and has served as Editor-in-Chief of numerous international publications, including *World and Pleasure Magazine*, *Notiziario CNN*, *Wanted in Buenos Aires*, *Scaccomatto*, and *The EEC Calendar*.

He has participated in a wide range of **academic seminars and workshops,** including the *Winter School on Environmental Crimes*, *Cyber Threats Workshop*, and *CBRN Risk Communication Program* at **UNICRI – United Nations Interregional Crime and Justice Research Institute;** the *International Congress of Protocol* at the **International Ceremonial and Protocol Organisation;**

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Among his published works are ***The Influence of the Mass Media in Moulding the Aesthetic Ideal*** (2007), ***War and Peace: Conflicts Over the Last Decade*** (2001), ***Venus Lounges*** (1998), ***Natural Resources Management in International Law: A Legal Framework*** (1994), ***Elements of Political Economy*** (1992), ***Elements for a General Theory of Law*** (1992), ***The Unsustainable Spell of Becoming*** (1991), and ***The Jacobin Club*** (1990).

His research interests span international relations, communication, media and social psychology, environmental and energy policy, and cyber threats. He has published **thousands of articles** on international affairs, sustainable development, demography, and CBRN risks in leading academic and professional journals.

Throughout his distinguished career, **Dr. Alejandro Gastón Jantus Lordi de Sobremonte** has been the recipient of numerous honors, titles, and decorations from academic, civil, and international institutions, recognizing both his professional achievements and his lifelong commitment to education, diplomacy, and social development.

Among his distinctions are the ***Crowned Belgium Bronze Medal* (2023)** and the ***Officer of the Order of the Belgian Cross* (2022)**, acknowledging his contribution to European cultural and academic collaboration. In 2020, he was appointed ***Kentucky Colonel*** by the Commonwealth of Kentucky and named a ***Paul Harris Fellow*** by Rotary International, also receiving the *Rotary Plaque of Appreciation* for his outstanding service and contribution to the success of the *Third Alzheimer's Conference* organized by the **Rotary Club Roma Capitale.**

In 2019, Dr. Jantus Lordi de Sobremonte was formally received as a ***Professed Confrere of the Royal Confraternity of the Holy Constable*** *(Real Confraria do Santo Condestável São Frei Dom Nuno de Santa Maria)* under the Royal Patronage of H.R.H. Dom Duarte Pio de Bragança. That same year, he was appointed ***Commander of the Order of Saint Maurice and Lazarus,*** and ***Knight of the Royal Order of the Crown of the Kingdom of Georgia.*** His earlier honors include the ***Knight of the Order of the Belgian Cross*** (2018), ***Officer of the Order of Merit of Savoy*** (2001), ***Knight of the Order of Saint Maurice and Lazarus*** (1999), and the ***WOIR Medal for Merit in the Service of Peace*** (1999).