

RECOMMENDATIONS FOR MEDIA COVERAGE OF THE CLIMATE CRISIS FROM A PSYCHOLOGICAL PERSPECTIVE

ORIGINAL VERSION
(translated from German)

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FOREWORD

Media coverage of the climate crisis affects people's well-being, as individuals and a society, and their ability to confront the crisis effectively and with self-efficacy. The effects can be unfavorable or favorable. The specific framing of media coverage of the climate crisis is of great relevance, as it can mitigate the unfavorable effects and reinforce the favorable effects.

We therefore offer constructive advice for reporting on the climate crisis from a psychological perspective. Although not all recommendations can always be applied to all types of reporting, we think that each individual implementation counts.

The recommendations developed here address print media as well as TV formats, radio, podcasts, digital reporting, nationwide and local media, social media, public service media, and private media. Only the most viable recommendations are presented below; additional valuable elaborations can be found in the suggested literature. The examples included are intended as illustrative sketches.

1 ADDRESSING THE CLIMATE CRISIS

Put the climate crisis on the agenda of the most important issues. Repeatedly point out the existing connections between events/contents and the climate crisis. This applies to both the causes and consequences of climate change on all kinds of topics, e.g., extreme weather, health, economy, politics, travel, education, fashion, agriculture, etc.

Effect: Supports an increase in people's climate knowledge and awareness of the climate crisis.

Reporting on topics such as agriculture, transport and traffic, economy, food industry and nutrition, energy, heating, construction, urban design, natural disasters, species extinction and biodiversity, the spread of diseases, zoonoses, and pandemics, geopolitical tensions, fashion, travel, culture, etc. provides starting points for raising climate awareness. It is also important to point out systemic interrelationships. In order to make the available information easily “passively” accessible, it should be actively integrated into the main reporting, and not relegated to separate sections or (web)pages. We recommend presenting both current and future specific and tangible effects of the climate crisis on everyday life in a comprehensible way.

1.1 Why the media?

This recommendation is directed at the media because they hold an important responsibility. The media impart knowledge and provide relevant information on important topics, such as states of emergency and how to deal with them, so that the population can make informed decisions. This increases the likelihood of participation in democratic processes and opinion-forming, as well as in transformation and solution processes. The media already contribute to this task through frequency and placement of coverage, and appropriate balancing of topics (agenda setting). In this context, media professionals select those topics that are particularly relevant (8), present them appropriately, and present them in an accessible, understandable and acceptable

manner. The climate crisis is a phenomenon that is complex, difficult to understand, and not immediately tangible to most. It is, thus, something for which our brains are evolutionarily not well equipped (43; 14), and to which a “psychological distance” is easily established (60; 34; 53), which does not match the actual risk. Consequently, it is necessary to explicitly promote comprehensibility and tangibility.

1.2 Trust in the media

The German media are generally trusted. The Digital News Report 2022 (51a) gives an overall trust score of 50% for Germany (for international comparison: highest media trust in Finland (69%), lowest in the USA (26%), the German level is higher than those of most other countries surveyed). However, the detailed report for Germany also shows a significant increase in news avoidance compared to previous years with 65% of respondents avoiding news occasionally in 2022, compared to 54% in 2019 and 49% in 2017. Frequent news avoidance was reported by 10% in 2022, compared to 5% each in 2017 and 2019 (51b, p. 14). With regard to the frequency with which Germans actively seek out information on the climate crisis, the current PACE study by the University of Erfurt relays that 36–46% of respondents seek out information on climate change (very) frequently, and 23.3–29.1% at least occasionally (5d, slide 38, as of 09/23/2022).

In another survey, journalists ranked 4th out of 11 for climate-related trustworthiness, ahead of Fridays For Future and the government. Only climate scientists, environmental organizations and farmers ranked higher (20a, p. 40). When Germans are asked who they trust to deal well with climate change, only 17% report a high level of trust in the media, 56% have little or no trust (5g, chap. 4, 4.1, as of 09/01/2021). Thus, despite an overall good level of trust in the media in Germany, news coverage of the climate crisis is viewed much more skeptically, and news avoidance is on the rise. Currently the media have room to grow more trust regarding the climate crisis. Since scientists and medical doctors are particularly trusted (both in general and in dealing with the climate crisis) (5g, chap. 4, 4.1, as of 07/31/2021 and 5d, slide 21, as of 09/23/2022), science-based and health-related information could contribute to building trust. Especially in contrast to social media, journalistic news media can build trust through science-based reporting. What is important here is a vivid, comprehensible presentation.

1.3 The facts speak for themselves

It is now well known and scientifically proven that the man-made climate crisis is already in motion and threatens the very foundation of all our lives. As early as 2011, the German Advisory Council on Global Change, WBGU (Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen) stated that challenge of transforming into a climate-friendly society consists in promoting a comprehensive change based on understanding, prudence, and foresight (65, p. 5) and that this requires cooperation between various disciplines and levels (65, p. 23ff). This is necessary to gain broad public acceptance for the upcoming societal steps to address the climate crisis. The media can reach the population at large and promote understanding, prudence, and foresight. Those who know a lot about climate issues show nearly twice the willingness to engage in climate action (63%) compared to those who know little (34%) (5d, slide 19, as of 9/23/2022). In a recent experiment (5d, slide 43–46), it was shown that even short, descriptive explanations of the steering effect or the low administrative costs of carbon pricing and climate money (= current political policies in Germany) increase the approval of these proposals. This shows that in media reporting the presentation of more in-depth information, such as the steering effect, is particularly useful.

There is broad agreement in Germany regarding concern about climate change (see 5c; 16b; 20a). Disagreement exists regarding the necessary steps to address it. It is a fundamental principle of democracy to have controversial processes such as this one. The comprehensible assessment of proposed political, corporate or societal actions in the common goal of fighting the climate crisis could make it easier for people to support group decisions. As the authors of the PACE study (University of Erfurt) put it: Relevant courses of action that increase self-efficacy should be communicated in an understandable way, and a framework should be established that facilitates climate-friendly action. Communication should be science-based and offer easily understandable explanations for proposed measures (translated from 5g, Policy Brief, Item 7 Recommendations, as of 09/03/2021). For a more detailed assessment of the effects of climate protection measures and proposed solutions see, for example, 55, p. 193.

Example: *The canteen of the city-based company Exemplo has expanded its vegetarian meal options. According to Exemplo's internal announcement, meat options will only be available one day of the week. Methane is responsible for about 20% of global heating (39). About 54% of methane emissions from the agricultural sector come from the digestion and manure management of all livestock. Calculations by the Eco-Institute show that the agricultural sector's climate target can only be met if livestock numbers in Germany are also reduced. (translated from 63).*

A central problem of today's media landscape in terms of knowledge transfer is the increased proliferation of "fake news", especially in social media. Unfortunately, the perceived credibility of information increases with repetition, regardless of its accuracy. To counteract this "illusory truth effect" (e.g., 25; 33; widely replicated), it is important to expose misinformation (see 40; for a brief overview, see also 36). In addition, fact checks should be offered more frequently, and the perceived credibility and availability of factual information should be increased through high-frequency coverage.

2 VALIDATING FEELINGS

Acknowledge feelings that may arise. Point out that these feelings are appropriate and that many people experience similar feelings related to the climate crisis.

Effect: Supports the reflection and acceptance of emotional reactions to the climate crisis. Helps people to develop ways of dealing with their feelings constructively, and to feel connected and encouraged to talk about their experience of the climate crisis.

2.1 Which feelings?

Media coverage of the catastrophic development of the global climate does not leave most people cold. This is not primarily due to the reports, but first of all to the content reported: It inevitably triggers feelings such as fear, worry, anger, shame, grief, and compassion. The extent and nature of the emotional reactions are alarming (1; 16b; 28; 49; 52; 59). For example, in one German survey 78% express concern about climate change. In addition, 78% expect severe damage to people in Germany and 85% to future generations (16b, p. 8). According to another study (28), 59% of young people in 10 countries worldwide are very or extremely concerned about climate change, and over 50% of participants experience each of the following climate-related feelings: sadness, fear, anger, powerlessness, helplessness, and guilt. Over 45% report negative effects on their daily life and level of functioning. About 59% feel that they and/or future generations are being betrayed, and around 65% feel that young people are being failed by their and other governments. This is a looming health and societal threat. Spontaneous and healthy emotional reactions to media coverage of the climate crisis should not be averted, avoided or ignored, even if they cause distress. They are necessary for awareness and coping. But it is important to take them into account and help people process them.

2.2 Unfavorable mental processing

The first thing to note is: It does not help to avoid emotions (e.g., 19; 22; 45; 6). This does not mean that media creators should deliberately trigger emotions or steer them in a certain direction. We advise against the use of shocking headlines and contents. This approach would not only be unethical, but also undesirable in its long-term effects (for further information, see e.g., 55). Instead, the aim is

1. to not prevent appropriate emotions by omission, if they are relevant to the matter,
2. to promote favorable processing, and
3. to counteract unfavorable processing (50).

Unfavorable mental processing (cf. 70) encompasses, for example,

1. literal denial (denial of facts "There is no climate crisis."),
2. interpretive denial (distortion of facts "The climate crisis is not man-made."; distancing "After all, that will not affect us here / in our lifetime."), and
3. implicatory denial (rejection of responsibility, helplessness "It's all too late.", "I can't do anything (anymore) anyway."; avoidance reactions "I'd rather not watch the news at all anymore.", "I don't want to hear about the climate crisis anymore."; delay "Let the other countries start first."; reactance / defiance "They just want to spread panic and restrict my freedom.").

Given the collective danger, this kind of processing is not just an individual problem, it is a pressing societal problem. Humanity must unite and rise above itself, and do so quickly. Indeed, there is no time for avoidance or denial. This position was supported even by the German Federal Constitutional Court (Bundesverfassungsgericht) on 24 March 2021, which called actual climate protection essential to protecting future welfare and freedom (10). Fortunately, what is needed for a healthy world coincides to a large extent with what is healthy for individuals – physically, psychologically, and socially. Individuals can profit from climate-protective behavior on many different levels. In addition to immediate effects, climate protection can also have a positive influence by preventing further damage to health in the long-term.

Unfavorable processing manifests itself in the aforementioned current increase in news avoidance. While a purposeful quantitative and qualitative dosing of news can be health-

preserving (3), news avoidance is unfavorable if it occurs to a high degree, leads to ignorance, and prevents coping. A reason for news avoidance frequently given by Germans is that news have a negative impact on their mood (51b, p. 15).

With regard to the climate crisis, a significant “climate fatigue” is noticeable. About 45% of respondents in the study occasionally “deliberately avoid information or news about climate change,” and about 25% even do so (very) frequently (5e, website item 4.2, as of 04/15/2022). About 26–31% confirm, across multiple survey waves, being “tired of hearing about climate change.” (5e, website item 3, as of 04/15/2022). Individuals with “climate fatigue” are more likely to agree with statements of avoidance and delay of climate protection (e.g., climate action is harmful, not possible, or should be done in other countries first; 5g, website and policy brief, item 3). These responses are indicative of unfavorable processing.

It stands to reason that avoidance strategies are related to the style of media coverage. According to a meta-analytical study (66; see also 67) strongly fear-inducing messages conveyed without portrayal of applicable solutions are more likely to lead to defensive reactions such as avoidance (see also 1), passivity (see also 54 on motivation and perception of competence) and reactance (= defiance reaction, see also 50). This appears to be most likely when fear or guilt is triggered in combination with feelings of helplessness. Helplessness leads to resignation (see 7).

2.3 Favorable mental processing

Emotions are necessary for orientation, prioritization, to provide energy for action, and for giving impulses in decision-making (cf. 53). They are like informants who tell us which direction to take. Fear due to a real danger, such as climate catastrophes, warns us and facilitates an impulse for action via activation. Since we cannot simply escape the climate crisis, we must confront it: through action that combats the climate crisis. This is an adaptive response to an adaptive emotion (cf. 48; adaptive = functional).

“Maladaptive” (= dysfunctional) emotions, such as the agoraphobic worry that one might suffocate in the supermarket, on the other hand, should not be used to guide one’s action and can be treated in psychotherapy (agoraphobia = anxiety disorder with fears in certain situations). The climate-related feelings we are referring to here are adaptive

though and cannot be “treated”, although support can be necessary. (For further information regarding the classification of adaptive and maladaptive emotions and their connection to adaptive behavior, see 61; 55, chapter 14; 12.)

What is helpful when dealing with distressing feelings? It is healthy to embrace adaptive feelings and unhealthy to avoid or fight them, even though this may be temporarily comforting (e.g., 19; 32; 45; 6; see also 12, chapter 6; 22). The appropriate and beneficial way to deal with adaptive but unpleasant feelings involves accepting them, classifying them, and taking them seriously. This is easier in an environment that validates feelings and deals with them in a non-judgmental way (see 12, chapter 6, esp. pp. 48/49). Acceptance of feelings does not mean acceptance of the situation that triggers the feelings (19). Conveying that the feelings are appropriate and shared by others is also helpful (38). Validating (= acknowledging, appreciating) feelings leads to more acceptance, less avoidance, and higher experienced controllability and comprehensibility, among other positive effects (38, p. 185). Perceiving that others have similar feelings is associated with, among other things, lower anxiety, lower depressiveness, and less guilt, as well as less rumination, better comprehensibility, and an increased control belief (38, p. 188). It is also beneficial to talk to others, as this can deepen mental processing, make it more flexible, and generate ideas for solutions (p. 47). More frequent conversations, particularly about the emotional response to the climate crisis, support this process. Translating emotional responses into constructive action addressing climate change is also helpful (see 56; 1). Suggestions on how to do this are presented in section 3.

Example: *A forest fire has been raging in Exemplum forest in the Exemplum mountain range since Monday. According to the local fire department the firefighting operations are being hampered by strong winds. To date, 15 hectares of forest have been destroyed by the fire. Man-made climate change is causing more drought and heat. When the two come together, the risk of fire increases rapidly (11). Many people in Germany are concerned or feel distressed by these and other climate-related developments. In-depth information on this can be accessed on our channel’s website under the heading “climate”. (The corresponding pages can additionally include information on unfavorable processing strategies. As these are human strategies to which no one is immune, covering these, ideally in an empathetic and non-judgmental manner, can build trust and*

reduce reactance/avoidance of the information (see 12, esp. pp. 48/49). In addition, the appropriateness of the emotional response, including examples, and their usefulness for coping can be pointed out. Adaptive ways of coping and the positive effects of taking action can be shown, interviews with experts or survey results can be offered (for further information see section 3).

Both unpleasant emotions, such as worry and fear (e.g., 66; 67), and pleasant emotions, such as hope, confidence, compassion, and pride, can generate constructive coping behavior and acceptance of climate action (see e.g., 17; 18), provided that the triggering content is combined with (individual and/or collective) know-how in dealing with these issues and an expectation of effectivity (for further discussion, see section 3.2.). Further and more comprehensive information on resilience and the effects of emotions when dealing with climate issues is available (see 12; 46; 55).

It is important to emphasize that fear and other unpleasant emotions are not a problem as such. Factual reporting that legitimately elicits fear should not be avoided or mitigated. It is of grave importance that the existing threat is clearly communicated. By subsequently pointing out specific possibilities for action, favorable processing of these feelings is promoted, and unfavorable processing is counteracted. Helplessness and low self-efficacy are not caused by a strong emotional reaction per se (44), but by the lack of effective options and ideas for action.

3 HIGHLIGHTING COPING STRATEGIES

When addressing the climate crisis, there are advantages in highlighting successful solutions and coping strategies at the same time. It is particularly helpful

- to point out regional and cross-regional activities for climate protection,
- to depict promising activities by other people,
- to report on people who are trusted or are perceived as similar to the recipients (to give orientation and provide role models),
- to point out the positive effects of climate protection,
- to offer information on how and where individuals can take action, if they so choose,
- to cover joint efforts and necessities of regional and cross-regional politics and economy, because both together are important for people's perception, and
- to illustrate collaborative action, which is of benefit to more people and more effective than individual action.

We recommend pointing out different options that can be taken up voluntarily. In this way, reactance (= defensive defiance) can be reduced, the need for self-determination is taken into account, and neutrality can be maintained.

Effect: Strengthens courage and confidence, promotes the ability to act, self-efficacy, and the experience of control and cohesion. Perceptions about attitudes and expectations of others can change towards a more realistic appraisal. Motivation for and belief in effective cooperation may increase.

Coping possibilities should ideally be pointed out within the same report that potentially evokes unpleasant or distressing feelings: When such a feeling has just been activated, and openness and search for suitable regulatory mechanisms is greatest, an opportunity

to prevent immediate avoidance is given. Starting from the headline, which arouses public interest, both problematic aspects of climate change and constructive options for action can be placed side by side. (For supplementary information, we refer to the insights of Constructive Journalism: e.g., <https://journalistikon.de/konstruktiver-journalismus/> [accessed Jan. 12, 2023]).

Images can also support these efforts: For example, a relevant positive image or chart could be shown next to negative images, for example of a climate-associated natural disaster. Visual representations of options for action are particularly beneficial, as are images of people who are (jointly) engaged in climate protection, and images depicting current or future positive effects of climate protection, such as a (future) protected, intact landscape or a car-free, green city (see 17; 55, chap. 12, pp. 213–237, see also 72 <https://climatevisuals.org/>).

Demonstrating the positive effects of climate protection can speak to the common values of people, regardless of political preferences. After all, climate action affects physical and mental health, social justice, community experience, domestic security, urban development, long-term economic development and savings through climate protection, welfare of children and elderly, protection of property, preservation of nature and landscape, psychological well-being, peace, and many more areas. These issues are highly relevant to most people and can therefore have a unifying and reconciliatory effect (29; 42). As different values appeal to different stakeholders (cf. 27) not only biospheric values such as nature conservation should be addressed, but also other associated values such as the preservation of (one's own) health and prosperity through climate protection compared to the future impact of unmitigated climate change. The comparison of future effects of climate protection with future effects of global heating (and not with the current state) is relevant for decision making and should therefore be covered in reporting, as changes due to global heating are inevitable.

3.1 Helplessness

Asked about their strongest emotions in the climate crisis, 45% of all respondents choose "helplessness". This is the dominant emotion about climate change in Germany, ahead of disappointment and anger (translated from 20a, p. 14). This seems to hold true

across all segments of the population and suggests, together with other findings, that the respondents often feel isolated in their actions and come up against the limits of their individual scope, which precisely cannot replace collective effort (translated from 20a, p. 18). At this point it is worthwhile to distinguish between disappointment, anger, or fear as adaptive emotions in view of the climate crisis and the global handling of it and persistent helplessness as an indication of an unfavorable processing strategy in a situation, in which there are basically (still) possibilities for action (see also 15). Helplessness and powerlessness in particular are “problem children” of the emotional spectrum in the face of threat – whether as predominant or as accompanying emotional reaction – because they promote further unfavorable processing strategies such as paralysis and inactivity or radicalization (1; 7; 48).

Helplessness is a highly distressing state. It involves the occurrence of a secondary evaluative response to a primary emotion such as fear or anger: Anxiety is associated with the thought “I have to do something!” and the subsequent situational evaluation “But I can't do anything!” then leads to helplessness. Helplessness must be reduced as much as possible. To counter helplessness, it helps to (re)establish the ability to act.

3.2 Establishing the ability to act

Experiencing oneself as capable of and engaging in action can effectively protect against stressful feelings and directly promote well-being (56; 42, pp. 24/25; 35; 68), especially when people perceive their actions as meaningful (71). This information should be reported accordingly (see, for example, the climate box in the short version). The ability to act requires a belief in one's own ability to master challenges and the resulting willingness and motivation to do so. In psychology, this belief is called self-efficacy expectancy (“self-efficacy” is used hereafter as a generic term for self- and action-efficacy expectancy). It influences whether people experience a situation as inherently controllable and manageable, and whether they put an idea or belief into action (Bandura's social learning theory, cf. 15, pp. 283–311; 7, pp. 209–235). Self-efficacy is beneficial to both health and performance. In research on salutogenesis (= resilience model for the development and maintenance of health), the perceived controllability and predictability of situations in a society is seen as a factor relevant to people's health (4, p. 31, p. 53ff).

Self-efficacy can be promoted by showing people, who find themselves in problematic situations, practical perspectives for action that are accessible and feasible for them and explaining the positive effects the action has on coping with the problem. The effect of self-efficacy (“I can make a difference.”) and group efficacy (“We can make a difference together.”) is also supported by many studies in relation to the climate crisis (e.g., 17; 64; 66; 67; 37). Higher self-efficacy leads to more environmentally friendly behavior (24). The expectation that one's own behavior can motivate others to also behave in an environmentally friendly manner seems to have a particularly beneficial effect (24), which again emphasizes the social relatedness of people. Through action, know-how, and self-efficacy, the basic human need to experience oneself as competent in achieving goals can be addressed (13). The satisfaction of basic psychological needs enhances individuals' well-being and motivates them to take appropriate action (for more on this in the context of climate change, see 69 and 68).

The willingness to act on climate change is present in 59% of individuals with high self-efficacy compared to 24% with low self-efficacy (5d, slide 19, as of 9/23/2022). Belief in one's own ability (and that of the community) is a powerful force. Its presence or absence greatly influences motivation, courage, and confidence. Promoting self-efficacy should not be confused with simply offering reassuring information. The latter tends to promote inaction rather than reduce powerlessness.

Most people already have the feeling that they do more than others (20a, p. 18). Therefore, advice should not only focus on individuals' personal efforts, but should also highlight community and societal opportunities. In addition, experiencing a sense of community has a positive effect on mental and physical health and, in turn, on self-efficacy (26). Important human needs are met when experiencing community. We therefore recommend a combination of promoting individual and community opportunities in media coverage. It should not be forgotten to address the need for political and corporate action as well (cf. 51b, pp. 61/63; 31). It is also helpful to point out opportunities for political participation (e.g., town halls, referendums, petitions, organizations, etc.), as many people would like to play a more active role in shaping climate policy (42, p. 13). Pointing out civic opportunities to actively promote climate and

environmental protection (e.g., energy cooperatives, community supported farming, car sharing, clothing swaps, etc.) is also beneficial.

Example: *An exceptionally violent thunderstorm with heavy rain caused property damage of €434,000 in the region around ExampleCity in the night from Monday to Tuesday. Four people suffered minor injuries. Seven of the ten most damaging thunderstorms in Germany in the past 40 years have occurred since 2013 (cf. 41). Increased humidity and air temperature due to climate change increase the likelihood of thunderstorms. Many people are concerned about this. We discussed this with some ExampleCitizens and the mayor, for the in-depth coverage see page 3 in the regional section. What actions can we take? General information on addressing the climate crisis and contact information for the local climate protection group can be found in the info box. Group meetings take place every 1st and 3rd Thursday of the month. Donations for affected people and towards protection projects can be made into account no. 1234567. What can the city government do? See the interview on p. 3 with Mayor Mrs. Example for further information.*

Shared values, which are threatened by climate change and correspondingly co-protected by climate protection, can also help unify different interest groups (e.g., health, social justice, family, welfare, peace, political freedom, homeland security, and many more; see 29 for more information). Health is a commonly shared value that is of great importance and relevance across all segments of the population (cf. 42, pp. 33–36). Taking health as an example, implementing these recommendations would mean not only showing the negative consequences of global heating on physical and mental health (e.g., heat deaths, asthma and allergies, tropical diseases, increased aggression in heat, traumatization...), but also, at the same time, explaining how and which climate-protective behavior and societal changes can preserve health (not only as an adaptation effort, but also as preventive countermeasures against further climate change). Again, it is important to not only address individual efforts, but to emphasize political and corporate efforts as well. To achieve necessary coping, action on all levels is required simultaneously.

The presentation of options for action in the media should not contain directive appeals, but instead point out voluntary means of taking action, as this meets the human need for autonomy and self-determination (13).

3.3 Social norm

Several representative surveys (5a-d; 16b; 20a) show that a clear majority of people in Germany recognize the current risk and conclude that fighting the climate crisis is necessary. Approximately 60–65% of people in Germany agree with the guiding principles of the current climate policy (e.g., “The future of the economy must be carbon-neutral.”, 5d, slide 6, as of 09/23/2022). 71% try to actively tackle climate change themselves (16a, p. 5), and over 85% think that people in Germany should do something against climate change (16c, p. 5). However, there is a perception bias in Germany regarding fellow citizens: 70% underestimate the willingness and activity of fellow citizens to combat the climate crisis (16c, p. 4), and 82% underestimate the extent to which others share the belief that something should be done about climate change (16c, p. 5). 49% “strongly” support climate action, but only 31% believe that people in Germany “strongly” support climate action (5d, slide 24, as of 09/23/2022). This is remarkable because it is very crucial for human action how the priorities and expectations of peers are assessed (“perceived social norm”). The social norm is a well-known and strongly action-guiding factor in psychological research. If the perceived social norm of a peer group is contrary to one's own convictions or appears to be significantly less pronounced, the willingness to act in accordance with one's individual convictions decreases (see e.g., 9). If people perceive the social norm with regard to climate-protective behavior as particularly pronounced, they are far more likely to act in a climate-friendly manner themselves (59%) than people who perceive the social norm in this respect as low (24%) (5d, slide 19; 16c, p. 6; 2).

A biased perception of the social norm may thus impede climate-protective behavior. A lack of information about the actual attitude of others is a possible cause of this. Media portrayal can correct this impression, e.g., in the form of education about the actual climate protection activities and views of others. In a study in the U.S., for example, such education resulted in significantly higher monetary donations for climate protection,

especially among more skeptical individuals (2). Correcting the perceived social norm thus shows an effect.

Apparently, the misperception of the social norm, specifically in the context of the climate crisis, also leads to “pluralistic ignorance” (see e.g., 21; 16c, p. 7), which means that the majority believes to be the minority and therefore behaves passively. This effect is most likely to occur in emergencies, disasters and crises with great uncertainty. At present it is apparent that, measured against the high level of concern (at 80%), there is little personal communication about climate issues (at only 30%) (20a). Regarding other socially relevant issues, personal exchange usually ranks high (20a). People seem to have little confidence in talking about their climate-related concerns. This, in turn, promotes feelings of isolation and discourages active and collaborative strategies and the development of self-efficacy. Again, the development of group efficacy and collaborative forms of coping can fulfill the basic human need for connectedness and belonging, which is beneficial, health-promoting, and motivating (13; 69; 68).

4 COMMENTS

4.1 On the advisory role of the media regarding the climate crisis

Usually, the media see themselves as responsible for preparing and delivering news, and not necessarily for taking care of the recipients' feelings and conclusions. Exceptions have been made for special topics such as reporting on suicides, for which specific recommendations have been formulated (cf. 62) and are usually followed conscientiously by the media. What makes the climate crisis so special compared to other topics, that such a form of audience support is also needed here?

1. All humans are affected by the climate crisis. Global heating has an impact on our entire planet. It does not affect certain individual countries or sections of the population only. Everyone who faces up to the climate crisis is affected, as is everyone who does not. The climate crisis affects everyone without exception.

2. Global heating is destroying the conditions all people need to live a good life. While other crises affect mainly limited areas of human life, the climate crisis affects the very foundation of our existence and thus all areas of life. That is why it must be treated accordingly. Not as one crisis among many, but as the currently greatest threat to the foundation of our existence.

3 The climate crisis poses a real danger. What does it endanger? The physical and mental health of each and every one of us. Domestic security. Peace. Global food and drinking-water supplies. Our homelands. Our integrity and that of our homes. The survival of future generations. This list is incomplete, but each item is essential.

4. The realization of this danger activates negative emotional responses and distress. These emotions are already quite common and will continue to increase. They trigger coping mechanisms, which can be favorable or unfavorable. To protect individuals and society, it is important to help people find appropriate and constructive ways of coping. In a global catastrophe of this magnitude, even if it is not yet immediately noticeable to everyone, everyone must contribute. Media portrayal has a central role to play here.

4.2 On the principle of neutrality in the climate crisis

The media can contribute to the successful and peaceful management of the climate crisis by pointing out the imminent threat and highlighting opportunities for action without aligning themselves with specific political aspirations or party politics. Proposed policies can be evaluated on the basis of scientific findings from climate research, climate impact research and associated fields (e.g., “How could the implementation of this proposal contribute to climate protection?”, “Which costs and savings would this policy entail in the short-term and long-term?” etc.). This would enable citizens in democracies to base their choices, whether they be private decisions, electoral decisions, or take other forms of civic participation, on valid information.

Opinions on climate change reporting in Germany vary greatly between older and younger age groups. While the majority of Germans aged 35 or older prefer neutral reporting on climate change and related measures, those younger than 35 would like the media to take a clear position in favor of measures against climate change (51b, pp. 61/63). Our recommendations can reconcile the contrasting preferences by providing the facts and making information on climate protection accessible, without necessarily calling for political action.

There is a high level of interest in and concern about climate change in Germany, and this appears to be largely independent of political orientation and party preference (16a–c, esp. 16b, p. 8; 20a/b; 5a–d). Approval of climate protection measures is also very high across almost all political preferences (5g, Policy Brief, item 5). Emphasizing the effects of the climate crisis and presenting possible solutions is not equal to unbalanced reporting, taking a political side, or aligning oneself with a minority opinion. It is equal to taking the side of humanity.

The neutrality of news is a central standard of journalism that must be taken into account. It is a matter of maintaining trust and not allowing oneself to be used for political games. However, the climate crisis is about much more than politics. It is about reality. The neutral attitude toward reality is to acknowledge it.

5 FURTHER INFORMATION

Research in empirical psychology has used scientific methods to compile solid findings on the above topics. Sources for more in-depth information are listed below. The recommendations presented in this paper focus on findings that can be directly implemented in general media reporting. Our intention is to bridge the gap between existing scientific findings and everyday media practice.

Reading list for more in-depth information:

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50 Rayner T. & Minns A. (2015): Tyndall Working Paper – The Challenge of Communicating Unwelcome Climate Messages. Tyndall Centre for Climate Change Research, University of East Anglia, <https://tyndall.ac.uk/working-papers/the-challenge-of-communicating-unwelcome-climate-messages/> [10/07/2022].

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- 5 Results of the following PACE studies are representative for Germany: Prof. Dr. Betsch C., Eitze S., Dr. Sprengholz P., Dr. Korn L., Dr. Shamsrizi P., Dr. Geiger M., Sievert E., Lehrer L., Dr. Jenny M. – *Gesundheitskommunikation (2022): Ergebnisse aus der Planetary Health ACTION Survey – PACE – Planetary Health Action Survey, ein Gemeinschaftsprojekt von Universität Erfurt, Bernhard Nocht Institut für Tropenmedizin, Robert Koch-Institut, Bundeszentrale für gesundheitliche Aufklärung, Leibniz-Institut für Psychologie und Science Media Center*. Finanziell unterstützt durch das Bundesministerium für Gesundheit und die Klaus-Tschira-Stiftung.
 - 5a PACE – Welle 2-4, Survey KW 24, as of 06/17/2022, <https://projekte.uni-erfurt.de/pace/summary/02-04/>.
 - 5b PACE – Welle 5, Survey KW 25, as of 07/01/2022, <https://projekte.uni-erfurt.de/pace/summary/05/>.
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 - 5d PACE – Welle 7-9, Survey KWs 31, 33, 35, as of 09/23/2022, <https://projekte.uni-erfurt.de/pace/summary/07-09/>.
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 - 5f PACE zum Thema Vertrauen (as of 09/23/2022): <https://projekte.uni-erfurt.de/pace/topic/input/30-vertrauen/> [10/10/2022].
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