Media communication strategies for climate-friendly lifestyles – Addressing middle and lower

class consumers for social-cultural change via Entertainment-Education

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Abstract. This paper argues that Entertainment-Education (E-E) is a striking communication strategy for reaching middle and lower socio-economic classes with climate-friendly lifestyle messages. On the international level (e.g. in the US and the Netherlands) E-E approaches are being theoretically grounded, whereas in Germany they are not yet. Therefore further theoretical discussion and mapping of E-E approaches is central for future research. As a first step towards providing further theoretical foundations for E-E in the field of sustainability, the authors suggest a threefold mapping of E-E approaches. The threefold mapping of E-E approaches for communicating climate-friendly lifestyles to middle and lower class consumers is based on recent results from academic research and practical developments on the media market. The commonalities among the three is that they all promote pro-sustainability messages in an affective-orientated rather than cognitive-orientated, factual manner. Differences can be found in: the sender of the sustainability message, the targeted consumer groups and the media approach in use. Based on this, the paper draws the conclusion that two new paths for further research activities in the field of Entertainment-Education can be proposed: (1) *Improving* the existing approaches in practice by using theoretical foundation from the E-E field. This comprises at its core (A) to do formative, process and summative effect research on the messages and (B) to use E-E theory from the field of social psychology, sociology and communication science for further improvement and (2) *Generating* new E-E theories by analyzing the existing practical approaches in the media to communicate climate change.

1. Introduction

Consumers, their lifestyles and consumption patterns, are a key factor in promoting a socio-cultural change towards sustainable development [1]. In particular, the mass media can be considered as an important medium for fostering climate-friendly consumer lifestyles [2]. For example, a survey by a German publisher [3] reveals that 73 percent of the German people indicate that they use mass media – television, radio, print, internet – as their most important source of prosocial (environmental and health) information. An American study emphasizes that around two-thirds of entertainment television viewers learn from the depicted messages content on prosocial issues [4]. Additionally, one-third of them 'take action' after watching these messages. Thus, viewers decide to put a lid on a cooking pot in order to save energy or they decide to become organ donors.

Consumer patterns differ significantly from each other and changes in awareness, attitudes and behaviors towards more climate-friendly lifestyles are complex issues. Interestingly, some scholars have shown that these changes function like logical progressions. For example "if we do this to people, they will behave this way" [5]. Singhal [6] argues that this may be a problematic prevailing mindset, because social systems and thoughts and actions of human beings could not be predicted, controlled, and measured in the same way as a machine, a clock, or the trajectory of an introductional ballistic missile. In other words, changing consumer patterns towards more climate-friendly lifestyles is not a cause-effect issue. Frequently, non-linear and contradictory developments arise, before changes in knowledge, attitudes or even behavior can occur. For scientists and practitioners it is challenging (1) to agree on what to do to initiate sustainable change, (2) to be certain about what the results will be, and (3) to determine clear factors, which have lead to changes from a retrospective viewpoint [7][1].

2. Structure of the paper

In order to analyze media communication strategies for pro-sustainability messages, which are especially suited for people, who like to be informed in an affective manner, i.e. people, who regularly come from middle and lower socio-economic milieus, this paper has the following structure: (1) First, affective-oriented media strategies are discussed, - as opposed to cognitive strategies. (2) In the second part, a literature overview regarding communicating environmental friendly lifestyles is provided. (3) The next paragraph introduces the E-E approach and discusses the application of E-E for sustainability messages. It is also argued, why a mapping of E-E approaches in this field is needed. (4) In the fourth and main part, the paper presents the threefold mapping of E-E approaches for sustainability, suggested by the authors: The Governmental Entertainment Approach, the NGO/Association Entertainment Approach and the Business Entertainment Approach. What the three approaches have in common is that they all promote pro-sustainability messages in an affective-orientated rather than cognitive-orientated, factual manner. What they differ in is the sender of the sustainability message, the targeted consumer groups and the media approach in use. Each approach is discussed in detail and case examples as well as a critical discussion are provided. (5) In the fifth part, a critical reflection on the mapping approach is presented on a broader level. (6) In the last part, the paper discusses recommendations for further research.

3. Cognitive vs. affective-orientated media strategies

The issue of climate change is communicated to consumers by different agents such as governmental organizations, NGO's and businesses. These agents address consumers in their different roles of their every day life.

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[1] An example for a complex change issues is Rosa Parks' refusal to give up her seat in a segregated bus. Other African American people did this several times before Rosa Park, but her refusal led to cascading events and was one important step towards the civil right movement of African Americans.

For example, governmental organizations may see consumers in their role as a 'citizen' or 'voter'. NGO's may primarily look at consumers in their role as 'climate change activists', and businesses may initially see consumers in their role as 'clients for their climate-friendly products/services'. According to these perspectives the agents want to reach consumers in their 'role' and therefore apply different media strategies. In other words, a governmental organization sends other climate change messages and hence uses different media strategies compared with NGO's or businesses.

As will be outlined later, for all three agents, it can be differentiated between 'cognitive-oriented' and 'affective-oriented' strategies, with the latter being especially well suited for addressing consumers from middle and lower socio-economic classes.

Many communication campaigns have been implemented during the last years, which mainly focus on 'educating' consumers by providing cognitive information, i.e. appealing to reason rather than to emotions. This 'cognitive-orientated' strategy can be considered as the 'classical' strategy, for example "if we communicate facts and data to people, they will be convinced". The 'cognitive-orientated' strategy particularly addresses consumers from higher socio-economic classes, who are affine to cognitive information and interested in facts, figures and sophisticated elaborations [8]. Prominent examples for these cognitive-oriented media strategies are (1) the communication campaign of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety *Climate protection pays off* (www.bmu.de/english/climate_protection_initiative/aktuell/42001) and (2) the German information campaign "*Encouraging sustainability*" implemented by several German associations as well as the Wuppertal Institute for Climate, Environment, Energy (www.mut-zur-nachhaltigkeit.de).

Studies from the field of communication science [9] clarify that 'cognitive-orientated' media strategies are not useful for addressing people from middle and lower socio-economic classes who are usually more interested in affective media strategies and consume most of the time in an affective manner. Thus, they recommended applying 'affective-orientated' media strategies for these socio-economic groups. For reaching them successfully with messages, it is suggested to investigate their emotional involvement in entertainment media formats. Affective communication is especially sufficient for describing the process during and after the audience has been exposed to entertainment media [10]. Beside the process of exposure, the relations between the narrative characters, affective dispositions and the experience of entertainment in a media format can be specified by affective communication research. For example, the affective disposition theory [11] understands empathy in the way that the audience first perceives access and then morally judges regarding the shown characters in entertainment television. In consequence, the audience members agree or disagree with the characters behavior and they develop positive or negative effects, which lead to affections like fear or hope according to the outcome of the story in which their beloved protagonist and the disliked/hated antagonist is portrayed. A prototypical entertainment experience like suspense or hope can be considered as a direct consequence of affective dispositions.

The advantages of applying affective communication research [12] such as comprehending the process of exposure, the relations between the narrative characters, the affective dispositions of audience members and the experience of entertainment in a media format may help to contribute to develop strategies that fit for specific media entertainment formats, campaigns and programs, which address middle- and lower socio-economic classes.

In recent years, scholars proposed using the E-E communication approach (see section 5), which communicates ecological messages in an affective manner [13] and which especially addresses socio-economic classes with climate change and other social issues.

The borders between affective and cognitive-oriented strategies however are subtle. There can be various mixed types. In this context, it may be central to take into consideration (1) what (which message) is communicated to the audience and (2) which strategies are used to communicate the message. Both the messages and the strategy can be cognitive or affective-orientated. For example, affective messages might be framed with a cognitive strategy and cognitive messages can be

communicated in an affective manner. Especially the latter case is of interest for E-E approaches for lower and middle class consumers. In specific cases it might be useful for E-E approaches to also include 'cognitive-oriented' elements for middle and lower social classes, who may respond to very practical advice especially when it is close to their everyday concerns, e.g. how to save money or how to repair things in their home. If these messages are communicated in an affective format, such as do-it-yourself reality shows, environmental improvements could also be achieved.

4. Literature Overview: Communicating Environmental-Friendly Lifestyles

The issue of communication on environmental-friendly lifestyles has not been widely addressed in communication science. However, a number of sub-disciplines such as environmental psychology, environmental sociology and consumer studies have also started dealing with the topic. From the standpoint of environmental psychology, tackling with communication on environmental-friendly lifestyles has a longer tradition. Since the 1970s, theories have dealt with environmental attitudes, values and behavior patterns. A very prominent model is the one of Fietkau & Kessel [14], which takes intrinsic environmental values, environmental knowledge as well as extrinsic behavior motivations into consideration to explain why people finally act environmental-friendly. In environmental psychology two schools can be found: On one hand there are models focusing on reflected behavior [15] and on the other hand, there are models which focus on behavior based on norms [16]. The first school involves general cost and benefit expectations to explain environmental friendly behavior of individuals, whereas the latter focuses more specifically on personal norms (i.e. the feeling of duty for living an environmental friendly lifestyle), social norms (i.e. anticipated pressure evoked by 'significant other' persons) and attribution of environmental responsibility. In recent years, theories have been established that try bringing both schools together [17]. Those models additionally take components of routines of action into consideration, which have been identified to have a significant influence on environmental-friendly lifestyle behavior [18]. For relating these results to E-E, especially those models are striking that combine cost/benefit expectations, personal/social norms as well as routines of action of individuals.

In contrast to environmental psychology, environmental sociology does not investigate the relation of the individual to the environment, but the relation of human beings resp. of society towards their environment [19]. Environmental sociology deals with social factors that can cause environmental problems, the societal impacts of such problems, and approaches to address the problems. For this paper especially sociological classifications in different socio-economic classes and the environmental behavior of these classes are relevant. The institute, socio-vision, is known for its milieu-studies based on sociological data, personal interviews on norms, believes etc. and the analysis of home visits conducted by different social classes (e.g. analysis of furniture, fitments, designs etc.) [20]. Based on this analysis ten different socio-economic classes are identified. The main groups in the middle and lower socio-economic class identified are (for Germany): Consumer-materialists, traditionals, civic middle-class, hedonists and experimentalists. Representatives of these groups are not knowledgable, interested nor in favor of environmental issues, e.g. they were found reluctant to spend more money for sustainable products and many agreed to the question of environmental problems were exaggerated. Reaching these groups, which make up a significant part of society, is crucial for sustainable development. As the authors argue E-E (see section 5) can be a useful means for reaching members of these groups.

In consumer or sustainable consumption research, the topic of environmental-friendly lifestyle messages is discussed with another focus. The main bulk of studies from the consumer field argues that beside specific trail depending consumer behavior, e.g. strategic consumption decisions as well as budget or availability limits, consumers can decide between more or less environmental and social friendly behavior alternatives [21]. However, consumers meet behavior barriers or restrictions, which exacerbate environment-friendly behavior systematically. This particularly comprises costs perceived as too high, paradoxical information signals, time pressure and a structural overload. Thus many studies from the consumer field argue that only a few, very engaged consumers will behave 'right', i.e.

environmentally friendly. The 'wrong' structures when acting environmentally friendly often cause burden rather than relief [22]. In recent years, consumer research established a heuristic of options (engaging factors) and restrictions (non-engaging factors) in sustainable consumption behavior [23], i.e. it has been claimed that a successful communication must emanate from options and restrictions for formulating appropriate messages. In this context, the following factors have positive influence on environmental-friendly lifestyle behavior [24]: perceived variety of behavior opportunities, knowledge of behavior consequences, positive consumption experiences with ecological or social products and services, positive appreciation of the consumption decision through social networks, positive behavior consequences through technical or communicational feedback-mechanisms (rewarding-effect) and target group communication through unconventional, affective strategies and campaigns. This target group communication may also take into consideration: informal setting, social networks and communities. These factors, and particularly the latter, are relevant for communicating the environment through an E-E approach.

The existing approaches reveal that there are many sub-disciplines starting to work on the topic of environmental communication. As outlined above, this article focuses on the E-E approach (see section 5), since it focuses on mainstream consumers from middle and lower socio-economic classes. Within this field, a mapping of different media approaches for environmental topics is missing and as the literature overview above indicated, there is no mapping, which E-E could draw from immediately. This is why this article aims at suggesting a mapping of media strategies within the E-E field (see section 6), in order to successfully apply E-E approaches.

5. The Entertainment-Education strategy for Sustainability Messages
In the past decade, the Entertainment-Education strategy has shown promise in addressing environmental and other social problems like climate change, environmental degradation, unchecked population growth, or gender inequality [25]. Entertainment-Education is the process of purposefully designing and implementing a media message to both entertain and educate in order to achieve desired individual, community, institutional and societal changes among the intended media user populations [26]. Entertainment-Education uses affective, emotional messages to show consumers how they can save energy and resources, live a healthier and an environmental-friendly life, and to show consumers how to address such issues in their communities (family, circle of friends, youth clubs etc.).

The idea of combining entertaining and educating elements is not new and goes as far back in human history as the art of storytelling. For thousands of years, drama, music, dance and other forms of folk media have been used around the globe for recreation, reformation and instructional purposes. The conscious combination of entertainment and education through mass media such as in television, radio, songs and comic books began in the 1950s and 1960s [27]. The first intentional endeavors came from the media side with the writer, producer and director Miguel Sabido. He was inspired by the audience success of a Peruvian television soap opera *Simplemente María* and produced a first series of seven E-E telenovelas from 1975 to 1982 [28]. Some years later, Sabido developed his methodology for E-E soap opera productions particularly based on the social cognitive theory. This theory outlines self-directed mechanisms of behavior change through social modeling and perceived self and collective efficacy [29]. The change in people's ability to carry out a specific behavior is primarily based on their vicarious experience modeled by positive, negative and transitional narrative characters portrayed in E-E radio and television soap operas.

Recent E-E research is particularly grounded in previously established theories of social psychology. This means that the focus lies on various social and psychological processes during and after media consumers encounter E-E narratives. This also suggests that the level of analysis is restricted to individuals. Scholars have recently discussed the danger of this individualistic, cognitive-proceeding centered and 'mechanistic' approach for social change [30]. They have made suggestions to employ a more holistic approach, e.g. taking the cultural background of the media users and the platforms and features on which the messages are sent into consideration [31].

On the international level, the theoretical foundation of E-E is particularly used by governmental organizations and universities/research institutes (see section 7) when designing and implementing E-E projects. The theoretical foundation at its core comprises (1) to do formative, process and summative evaluation on the messages and (2) to use an E-E theory (e.g. the Elaboration-Likelihood-Model, see [32]) for successfully reaching media users with messages. For NGO's, associations, as well as businesses, the theoretical foundation is so far rather untypical.

In Germany, NGO's and businesses do not make use of a theoretical foundation for their media strategies. In comparison to the international level, governmental organizations also do not do so. Nevertheless, many practical approaches exist, which may be related to the E-E strategy. These approaches can be characterized by a 'strategic practice', i.e. the messages are targeted at specific consumer groups.

According to these gaps, this paper proposes two new fields of application of E-E: (1) *Improving* the existing approaches by using a theoretical foundation from the E-E field via formative, process and summative effect research on the messages as well as using an E-E theory from the field of social psychology, sociology and communication science and (2) *generating* new E-E theories by analyzing the existing approaches.

6. Mapping of E-E approaches

In order to promote the application of E-E approaches for communicating climate-friendly topics to middle and lower socio-economic classes this paper suggests a threefold mapping. Due to the limited evaluations on the effects of E-E measures, further theoretical discussion and mapping of E-E approaches is central for future research. As this is a theoretical paper, it cannot provide detailed effect evaluations of E-E measures on a broad basis. But as a first step towards providing further theoretical foundations for E-E in the field of sustainability, the authors suggest the threefold mapping. This mapping could be used as a theoretical basis for practical case studies that evaluate the effects of E-E measures in the sustainability area. In this paper the authors can only provide indicative measures for evaluation the effects of E-E measures.

Within the field of Entertainment Education, approaches have been developed and implemented to diffuse affective-orientated and pro-sustainability messages via entertainment TV (see the formats *Echt Elly* in the Netherlands, *Wa$ted* in New Zealand or the format *Welt der Wunder* in Germany). However, there are still approaches outstanding, which clarify:

- Which groups of agents try to reach middle and lower class consumers with pro-sustainability messages? And
- Which characteristics their approaches have (targeted consumer groups and the media strategy in use)?

To answer these questions, this paper suggests a threefold mapping of approaches in the field of E-E for promoting pro-sustainability messages to middle and lower-class consumers, particularly climate-friendly messages:

1. The **Governmental Entertainment Approach** (see section 7) focused on sustainability issues with a high acceptance in society (e.g. promoting to save resources and energy or eating organic food),
2. The **NGO/Association Entertainment Approach** (see section 8) focused on marginal pro-sustainability issues from advocacy groups with a lower acceptance in society (e.g. promoting solar energy as 'the best' sustainable energy),
3. The **Business Entertainment Approach** (see section 9) focused on pro-sustainability messages from individual, for-profit businesses, with commercial intentions for pushing pro-sustainability messages (e.g. promoting to save energy and therefore to use services of a specific energy company).

Figure 1 shows a mapping of the different approaches. The main characteristic of all three approaches is that they communicate sustainability messages in an affective rather than cognitive and factual manner. This also allows reaching consumers with a lower information level according to

sustainability issues, in particular from middle and lower socio-economic classes. Anyhow, the three approaches differ in (1) the sender of the messages, (2) the targeted consumer groups and (3) the media strategies in use.

Figure 1: Mapping of Entertainment-Education Approaches for Communicating Climate-Friendly Lifestyles
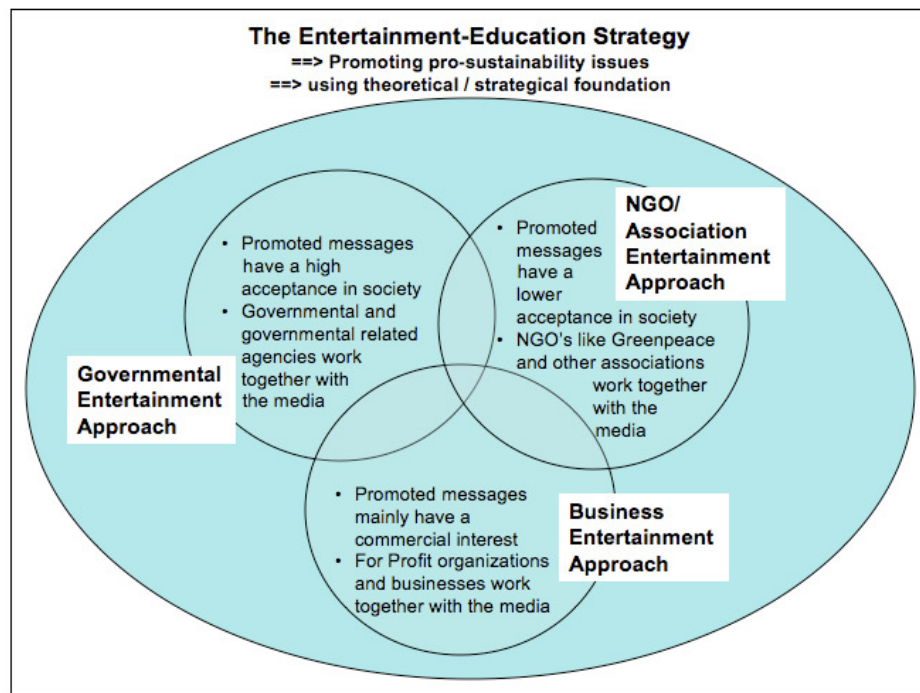
With this threefold mapping, this paper provides a sender-orientated focus to describe different approaches in the field of E-E. There are also other emphases possible. One example could be to look on the E-E field from a geographic/cultural perspective. In the international context (particularly in the US and the Netherlands), theoretical foundations are often used in the field of E-E related to the governmental approach. Because the theoretical foundation of E-E approaches is less diffused in German governmental organizations, NGO's/associations and businesses, they can learn from the experience made in other countries.

In the following sections the three sender-orientated entertainment approaches are discussed with respect to (a) description/definition (b) targeted consumer groups, (c) media approach, (d) case example and (e) a critical discussion of each approach (see section 7-9). Afterwards a critical reflection on the approaches is provided on a broader level (see section 10) and finally, recommendations regarding future research in this field are given (see section 11).

7. Governmental Entertainment Approach

7.1. Description/Definition

The governmental entertainment approach has mainly been implemented by governmental (related and in their behalf working) organizations like the German Ministry for Food, Agriculture and Consumer Protection, the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, the German Federal Center of Health Education as well as universities and research institutes. In this approach, governmental organizations collaborate with entertainment media people (like producers, scriptwriters and journalists) to promote their sustainable messages. Regarding climate

change issues, this approach primarily focuses on messages, which have a high acceptance in society and which can be transported in a short and easy manner, e.g. saving resources and energy or buying regional products (see section 7.4.). On the international level, e.g. in the US and the Netherlands, governmental organizations use effect studies to evaluate E-E messages and their influence on audience members [33]. In Germany, this has not been the case yet. Lubjuhn/Bouman [34] suggest implementing effect research as a strategic measurement for German future collaboration activities. Doing effect research in E-E projects may be important to prove whether the E-E messages reach the audience members in front of the TV sets – and generally – whether it makes sense to support the governmental entertainment approach in general.

The following section will briefly depict how E-E effect research could maybe look like in Germany. One option could be to evaluate a specific message with a pre-/post design to investigate, whether the message influences audience members in their knowledge, attitudes and behaviors [35].

As an example for illustrating future effect research may serve an E-E message of Hans Beimer in the soap opera *Lindenstraße* (see section 7.4). In one episode Hans Beimer emphasized that he buys regional products, because frozen ones consume four times more energy. Impact research may ask regular viewers of *Lindenstraße* before watching the episode, to analyze their buying habits in general. After watching the episode, impact research could investigate, whether the message (e.g. in combination with interpersonal communication) leads to changes in knowledge, attitudes and even behavior towards energy consumption and buying products and whether the viewers explicitly remember the message of Hans Beimer. As a control group, non-regular viewers of *Lindenstraße* could be investigated with the same research design.

7.2. Targeted Consumer Groups

The governmental entertainment approach reaches consumers who are interested in seeking information in an affective manner. These consumers mainly come from middle and lower socio-economic classes [36]. The following paragraph briefly depicts some characteristics regarding consumers who are affine for being engaged and persuaded by this approach.

7.2.1. Knowledge on Climate Change. Consumers who are receptive for these messages have less factual knowledge about climate change issues [37]. Liedtke et al. [38] differentiate between environmentally conscious and environmentally friendly behavior. Environmental conscious behavior arises when consumers reflect on the basis of facts, figures and sophisticated elaborations that it is necessary to protect the environment. For environmental-friendly behavior, consumers must not necessarily be interested in saving the environment. For instance when they abstain from a plane flight not for reasons of environmental protection but of saving money. E-E affine consumers mainly behave in order to environmental-friendly manners [39]. Interestingly, these consumer groups use less resources (e.g. not driving a car) than people from higher socio-economic classes because of money saving purposes [40].

7.2.2. Climate change aspects of interest. The messages provided by this approach reach consumers who are interested in narrative environmental messages, (1) which help them to save money, (2) which are easy to integrate in their every day life, (3) which are easy to remember and thus (4) which can be easily discussed with friends, family and community members (participative function). Energy saving messages (see section 7.4.) may be one of those that are very simple to adapt for consumers, because they receive a direct advantage from it.

7.2.3. Intention to change lifestyles. Environmental-friendly behaving consumers do not feel responsible for their environment and they have not internalized norms and values in order to promote sustainability issues [41]. If they change their lifestyles towards more climate-friendly ones, they do so unconsciously. Most of the time

- parasocial interaction with narrative characters in E-E series (for instance "I like the character and the clothes he wears and I can imagine also buying an organic T-shirt") as well as
- interpersonal communication with friends, family and neighbors about the E-E storylines

lead to processes that open up possibilities for changes in knowledge, attitudes and behavior towards more climate-friendly consumption patterns [42]. Consumers who are receptive for environmental-friendly messages from this approach have a high consumption rate of entertainment media in general. Additionally, they have a distinct reading culture and like to be informed in an entertaining and sensational way. Therefore, they use a wide variety of entertainment media (television, radio, internet, pod casts) to be entertained and to seek information from which they can learn and which they consider to be helpful in their every day life [43].

7.3. Media Approach

Governmental organizations use a mass media mix to reach the above mentioned consumer groups with their pro-sustainability messages. They do so, because they promote generally accepted topics, which can be easily diffused through different channels in the mass media (like television, radio and internet). Therefore, they collaborate with media entertainment people, supporting them with information and suggestions according to topics in the field of sustainable development. Governmental organizations try to prepare this information in a way that the entertainment media makers can use it for further ideas and storylines in soap operas, telenovelas, photo stories etc. For example, a governmental agency can suggest to a television producer of a telenovela to write a storyline about a narrative character who wants to make an energy consultation in his apartment for finding out where he can save resources, energy and money. Therefore, the governmental agency offers the TV producer the necessary background information (e.g. what is the typical course of a consultation and which main messages are given etc.) to write an accurate and authentic storyline.

7.4. Case Example

The first section of the paper depicts the campaign *Climate protection pays off* by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety as an example for a 'cognitive-oriented' media strategy for reaching higher socio-economic consumers. Interestingly, the German Ministry extended its climate communication strategy by an 'affective-orientated' strategy, the E-E strategy. Therefore, an entertainment television series was used to communicate climate friendly messages to consumers from middle and lower socio-economic classes. In 2008, the German Federal Ministry for the Environment collaborated with the oldest German soap opera *Lindenstraße*[2] and the Department of Health and Environment of the city of Munich. *Lindenstraße* is broadcasted by the public broadcasting station ARD, and it is famous for dealing with social and environmental issues. Since 1988, the *Lindenstraße* broadcasted 13 episodes about environmental topics [45], and some of their characters are very sensitized to social and environmental topics.

The idea had been to initiate the environment day *Looking for climate, offer protection* on August 17th 2008 in downtown Munich and to broadcast a *Lindenstraße* episode seven days earlier, which dealt with the design and implementation of this environmental event. In the episode, the character Helga Beimer planned the environment day in her *Lindenstraße* neighborhood. She loves the nature, and in former episodes she has made several attempts to advocate for environmental issues. According to the above-mentioned theory of Bandura [46], Helga Beimer can be considered as a positive role model for social change. In the episode she motivates her family, friends and her community to be a part of the event and to discuss and share opinions about climate change issues. As a platform for environmental discussions and exchanges, Helga Beimer planned and implemented a climate change quiz and a climate cycling rally.

The *Lindenstraße* episode aimed at making viewers think about climate change issues. It integrated various 'easy to understand' messages on more climate-friendly lifestyles in its storylines. For

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[2] In 2007, *Lindenstraße* had on average around 5 Million viewers each episode [44].

instance, the character of Hans Beimer, the ex-husband of Helga Beimer, is very engaged in protecting the environment. In one storyline an energy consultant visits him at home to figure out where potentials for saving energy can arise. In the dialog with the consultant, Hans Beimer emphasizes using a steamer saves 60 percent of energy compared to using a regular cooking pot. Moreover, Hans Beimer mentioned that he buys regional products because frozen products consume four times more energy.

Another example for sending climate-friendly messages uses the character of Murat Dagdelen, a Turkish citizen who is less interested in environmental issues. He had been involved in criminal activities in the past, but during the last episodes he did quite a good job in re-building new life goals: He has successfully opened a doner snack bar and is happily married. However, in the episode he was not portrayed as an 'over-motivated' activist for saving the environment like Helga Beimer, but in one dialog he authentically remarked that saving the environment may have advantages for himself, his family and other people. On the environment day, he served burgers for the visitors of the event. In one storyline with Helga Beimer, he emphasized that he bought organic ingredients, and he argued that veggie burgers could be a good alternative to meat burgers. According to Banduras theory of social modeling, Murat Dagdelen can be considered as a transitional role model, first having a negative attitude according to climate protection in former episodes and then changing his mind to a more positive attitude.

7.5. Critical Discussion of the Approach

Using the governmental entertainment approach, win-win effects for both the TV and the governmental side can be created, because through collaborating (1) the governmental institution can reach a target group of millions of people with climate protection messages and (2) TV makers can produce accurate and authentic storylines with the help of certified expert knowledge. An essential condition for mainstreaming the approach may be to design a formalized collaboration setting (e.g. with a formal collaboration contract and a guidance of the partnership by effect research). Currently, implementing sporadically and informal collaborations is the foremost practice in Germany, in terms of 'let us do something together and let us see how it works out'. So, further development and improvement is needed in this field.

There are also disadvantages of the governmental entertainment approach. First and foremost, the fact that German governmental organizations and entertainment TV makers collaborate together for sending climate protection messages is reflected quite critically in Germany's public. Several reasons for this can be found. One major point may be that the Nazi regime misused entertainment TV for propaganda purpose [47] and out of this history legislation forbids governmental organizations to influence TV makers content in terms of 'we pay and you send the message'. Governmental organizations are only allowed to advise the work of the TV side, to sponsor it, and to guide the TV formats with participative events such as expert workshops or face-to-face meetings of soap celebrities and audience members, discussing climate change issues.

In consequence, when the collaboration partners come together, they undergo a thin red line between legality and illegality. Where do advising and sponsoring end? Where does influencing media content start? Germany's media legislation does not make a clear statement on that [48] and outsiders cannot comprehend, whether collaboration partners crossed boarders of legality while collaborating. The majority of the initiated collaborations suffer in public reputation, because the governmental part is suspected to influence the program content. Current discussions in collaboration practice deal with these areas of conflict and try to find solutions for future activities.

8. NGO/Association Entertainment Approach

8.1. Description/Definition

The NGO/Association entertainment approach refers to two important characteristics. The first alludes to the circle of actors who are sending these messages. These are NGO's (like *Greenpeace*, the *Red*

Cross etc.) and associations (like the *Central Marketing Association for German Agriculture*, the *German association for Healthy Sports and Sports Therapy* etc.). When comparing this group of agents to the governmental entertainment approach, it is not in any case clear, which societal and economic interests these organizations serve. For example, the German platform *Nutrition and Exercise* cooperated with the German commercial TV broadcaster *SuperRTL* in the children's program *Peb & Pebber* in 2007 to promote healthy and organic food. The platform includes non-profit as well as for-profit organizations in its portfolio. Interestingly, there is no information available (e.g. on the platform website) regarding the (social, commercial and economic) interests of the platform.

The second characteristic of this approach is that the sustainability messages are less accepted in society comparing them to the messages sent in the governmental approach. For example, the German commercial broadcaster, *RTL,* has aired six episodes of *Greenpeace TV* in 1997. In these episodes *Greenpeace* promoted specific messages that served their organizational concerns like "stop poison and gene technology in food". *Greenpeace* produced the six episodes on their own and offered sponsoring money to *RTL. RTL* was giving them the timeslot for airing.

Like in the governmental entertainment approach, impact research on messages developed in this approach is missing yet, so it is hard to say, which impact climate change messages implemented by a NGO/association and TV makers have on audience members so far. Impact research could investigate with a pre-/post design how the specific message "stop gene technology in food" influences audience members. The audience may be asked before watching the Greenpeace format, what their opinion about gene technology in food is and then after the show. In addition, research could investigate whether they remember the special message, and if they talked with family members or friends about the issues they saw in the episode.

8.2. Targeted Consumer Groups
The targeted consumer groups in the NGO/Association approach are quite similar to the governmental approach. The biggest difference is that this approach advocates more specific topics like promoting solar energy, no gene technology or German organic food. The consequences are that (1) the sustainable messages are more marginal and therefore (2) the consumer groups addressed are more specific comparing them to the governmental approach.

8.3. Media Approach
NGO's and associations also use an entertainment approach, which mixes up different media channels. However, their communication strategy is not as varied as in the governmental approach. It is more focused on special forums. For example, the TV program *Peb and Pebber* was only broadcasted by a TV channel targeted to children. The efforts to reach children with healthy and organic food messages were not combined in a bigger media strategy, i.e. sending the messages for example also via internet, radio or print. At least it was not incorporated in a special campaign. This goes with Volpers et al. [49] who suggest that many NGO's and associations particularly focus their media strategy on one or two channels, like collaborating with a television program or a youth magazine for promoting their pro-sustainability messages.

8.4. Case Example
A case example for this approach is the activities of the *CMA* (*Central Marketing Association for German Agriculture*). In 2003, *CMA* collaborated with the German music television channel *VIVA*. They launched the cooking show *The Last Judgment* together. The show aimed at making young people vocal regarding German agricultural products and to change their knowledge, attitude and consumption behavior towards these products. In a lively manner, the program depicted a variety of innovative recipes for regional and organic agricultural products. Additionally, celebrities from the music, sports and the entertainment professions were invited to cook together with the host of the show, the well-known *VIVA* moderator Tobi Schlegl.

Another collaboration of *CMA* in the field of entertainment television has been the co-production of the entertainment magazine, *Made in Germany – The Best from Countryman,* broadcasted by the commercial TV broadcaster *Terranova* from 2005 until 2007. The magazine focused on German agricultural products and tried to promote a positive image regarding these products. In the episode 09th May 2007, the president of the *German Meat Association*, who is also a member of the *CMA*, talked about German meat, emphasizing 'how healthy and organic' it is. He referred to German butchers who 'work with transparency' and who have 'nothing to hide' (*Terranova*, 09th May 2007, also see [50]).

8.5. Critical Discussion of the Approach

On one hand NGO's/associations have the advantage that they can work together with TV makers for promoting their topics to a mass audience. On the other hand, TV makers can receive (1) new ideas for the message content and (2) sponsoring money for implementing the program.

When talking about the disadvantages of the approach, two main points can be made. First, NGO's and associations do not find collaboration partners from the TV field as easy as governmental agencies, because their topics are more marginal and it is not easy to locate TV makers, who fully support more specific messages such as "no gene technology in food" or "solar energy is the best alternative". Second, it is to say that NGO's and associations regularly pay sponsoring money to financially support the TV makers. As described above in section 7.5., this accuses them even more in public that they actively influence the program content. For example in the case of Greenpeace mentioned above, German media scholars had criticized that *Greenpeace "had the possibility to report about their own concerns without any kind of control or authority"* [51]. Beyond doubt, the aims of *Greenpeace* can be considered as welfare-orientated. However, some media scholars argue that *Greenpeace* and other NGO's, as well as, associations do not serve the public welfare but their own interests, means, clients, members and their donors [52]. Thus, image or financial interests of these organizations dominate the welfare or sustainability interests. Obviously, future media legislation needs to find clear standards for resolving conflict areas arising in this collaboration approach [53].

9. Business Entertainment Approach

9.1. Description/Definition

Pratt and Sabapathy [54] note that business can play a key role in promoting sustainable consumption patterns and climate-friendly lifestyles. In recent years, companies discovered the potentials of the entertainment media to send pro-sustainability messages with commercial purposes. To summarize these developments in the business sector, this paper proposes the name business entertainment approach.

Michaelis [55] suggests that companies will need to go beyond their current business framework and engage in collaborations with civil society as well as with media in order to promote climate-friendly consumption patterns. Sending affective rather than cognitive, fact-based messages can be a powerful means of reaching consumers – especially from middle and lower classes with little knowledge and limited interest in sustainability matters.

However, when it comes to business communication of sustainability messages, especially via affective, entertaining media strategies, the risk of being accused of "Greenwashing", needs to be taken into account i.e. being accused of disseminating environmental disinformation in order to gain an environmentally responsible public image. Companies that make use of affective media strategies rather than communicating "hard facts" are especially at risk of these kinds of accusations. Therefore, these companies are well advised to be able to provide reliable facts and figures regarding sustainability aspects of their products and services when asked for it in order to back their sustainability message.

The furniture company IKEA can serve as an example here, which promotes a family image (abolishment of child labor in production etc.) on an affective base. The informative brochure *Social*

and Environmental Responsibility, which contains facts and figures about their sustainability efforts [56], is not handed out in the stores, but in contrast to other IKEA brochures is only available for customers who express interest on how IKEA deals with sustainability issues. The reason is that the company is extremely cautious not to take any actions that could be misinterpreted as Greenwashing [57]. If the company promotes its sustainability efforts too pro-actively and markets its progress in concrete numbers and figures, it risks that environmentally concerned groups and other critics might point to shortcomings in sustainability still existing and accuse the company of Greenwashing. Corporations with strong environmental claims often remain prime targets of critics, who point to shortcomings of their measures, so that applause is seldom far from a Greenwashing charge [58]. The companies hence risk getting into what can be identified as a Reputation Trap [59].

9.2. Targeted Consumer Groups

The targeted consumer groups are current or potential customers of the respective company. Thereby affective media strategies are a valuable means for reaching customers from middle and lower socio-economic classes. As outlined above, these customers often have limited knowledge about sustainability so that fact-based, cognitive media messages (e.g. CO_2 emissions per km for a car) are less effective.

Furthermore, the sustainability interest of these consumers is often driven by the interest to save money and/or because sustainability is "trendy" and allows representation as well as discussions among family members, friends and community (participative function). The sustainability trends followed by these consumers are often those adopted by higher socio-economic groups that function as peer-groups for consumers of middle and lower socio-economic classes [60]. A main part of these latter consumers are what can be called LOHAS (lifestyle of health and sustainability)-affine consumers [61] who are interested in sustainable products, but whose knowledge about and commitment on sustainability remains clearly behind 'traditional' LOHAS or 'ecos'. LOHAS-affine consumers are driven by affective triggers, e.g. they favor products from local and national produce, products which they consider 'authentic' and related to their daily life, and they prefer new, sustainable products from existing, traditional companies which they have built trust in, rather than new sustainability start-ups [62].

These kinds of consumers, like LOHAS-affine consumers, are a fast growing group, which makes it interesting for companies as well as for researchers to investigate if and how these consumer groups can best be reached via affective media campaigns.

9.3. Media Approach

The business entertainment media approach very often uses a twofold strategy to target their consumers. The approach can be related to the Elaboration Likelihood Model (ELM) [63] presented above: Companies communicate a climate-friendly message with a high acceptance in society, for instance 'saving energy'. First an affective communication is used, e.g. by involving stars/idols or by using animals or small child patterns. This communication is initiated through a peripheral route, in which a motivation and a positive attitude towards the theme (e.g. saving energy) are created in an affective way. As a second step, a cognitive message based on facts and figures can be launched, e.g. amount of energy and hence CO_2 to be saved. This can motivate people to take the central route according to ELM and hence to sustain environmental behavior change (e.g. saving energy by purchasing energy efficient products). In order to further spur motivation, the climate-friendly message can be coupled with additional values relevant for the specific consumer group, e.g. saving money, being trendy or simply an entertaining, fun message.

The other main component of a business entertainment approach, besides the environmental message is the promotion of a specific product or service. Thereby the product or service is presented as a means for realizing the sustainability value – and the related additional value –, e.g. "if you use our energy system, you can not only save money, but you are climate-friendly too". This last layer

provides specific and frequently limited messages, which seek to encourage consumers to buy commercial products or make use of commercial services.

It is important to note that in the business entertainment media approach, the affective component clearly is in the forefront. Facts and figures can be provided in addition within the media message or – as outlined above – can be made available separately 'on demand', for example within a special brochure (IKEA) or on a separate webpage (see RWE case example below). The affective component is predominant because the business entertainment media approach targets middle and lower social classes who are open to and interested in affective messages, but who often are not familiar with environmental topics such as climate change. Affective messages therefore can prove useful to spur motivation towards sustainability topics and environmentally friendly lifestyles.

9.4. Case Example

As a case example for the business entertainment approach serves the resource efficiency campaign of the German energy company RWE. As a major player in the European energy market, RWE is chosen as an example for the business approach because the business approach is discussed here with respect to E-E makes sense, especially for large, multinational companies, which target consumer mainstream (consumer masses).[3] As discussed previously, affective E-E strategies are especially well suited to address lower and middle class consumers.

In 2007, RWE launched an affective communication campaign, which used animals as 'efficiency experts'. The campaign aimed at identifying potentials for saving energy and money for 'the average' consumer and hence consumers from middle and lower socio-economic classes. To reach these consumer groups successfully, RWE launched a campaign with animals like dachshunds, hamsters and lizards, which give energy saving advices in print media, on television and radio. For example, in one television-advertising clip, RWE told the story of a speaking dachshund who walked through his house and found evidence that the house he lived in is not well insolated. For example, he discovered that the front door had a draft. He emphasized that energy saving hints from RWE are helpful to avoid energy loss and help to save costs and money. This story was told in a very emotional and funny/entertaining manner. At the end of the clip the information was given that RWE provides energy saving checks on their website. The evaluation of RWE's business entertainment approach paralleled effects of the animal stories on the consumers. Many consumers made the energy check and discovered more climate-friendly lifestyles for their every day life [64]. The company however only tracked the number of consumers, which run the check. Whereby data on consumers changing their behavior after the check was not tracked.

9.5. Critical Discussion of the Approach

Especially for companies, which serve mainstream consumers from middle and lower socio-economic classes, which are often less informed and interested in sustainability topics, it can prove useful to accompany their sustainable products by affective-emotional media strategies. In order to promote environmental behavior change, these strategies should go beyond mere marketing and should be based on E-E approaches, which are theoretically founded, e.g. which measure effectiveness and change of lifestyles rather than only amounts of products sold. So far this is hardly done. To realize such an endeavor, companies could engage in partnerships with researchers in this field.

A general pitfall for the business approach discussed can be put forward in form of a paradox: As some authors argue, it can prove contradictory to promote 'more consumption', as sustainability contains the concept of less consumption [65]. On an affective level excessive consumption may seem attractive, especially for lower class consumers as a hard or unobtainable dream, but the real excessive – and unsustainable – consumption is to a higher degree performed by those who can actually afford it. When higher socio-economic classes function as a peer group social climbing for lower classes, it is

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[3] In contrast, small, genuine green companies usually address a smaller segment of well-educated consumers from higher economic classes and not the consumer mainstream.

exactly the opportunity to consume more – live in larger houses, have more cars etc. – that is attractive. But there is a smaller segment of higher classes, typically those with high cultural capital who may set a standard for moderation and simple living etc. Thus, companies have to reflect in detail, which kind of messages are useful to promote their products and services.

10. Critical Reflection

In order to map different collaboration approaches for media strategies within the field of E-E, this paper suggested a sender-oriented approach with a differentiation into governmental organizations, NGO's/associations and businesses collaborating with entertainment TV makers. Alternative mappings also would have been possible, such as mapping according to receivers (e.g. consumer types) of the messages or a differentiation regarding geographical partnerships, e.g. collaboration approaches in Western and/or Non-Western settings. As the senders are the ones, which need to apply media strategies within the E-E field in order to successfully communicate environmental topics, the authors mapped the different media strategies according to this group.

The mapping of different collaboration approaches depicted in this paper were chosen to highlight essential practice developments and to pinpoint (1) that theoretical foundation such as effect research is a necessity for future strategies in this field and (2) that legislative clarification and differentiation is needed to support the distribution of accurate and authentic sustainability information via entertainment TV and thus to foster 'social or sustainability change' [66].

When applying the three described approaches, implementers from governmental organizations, NGO's/associations and businesses are confronted with the fact that they are allowed to advise and sponsor, but they are not allowed to influence the program content. Indeed, most – if not all – collaboration implementers criticize that there are no standards and guidelines, which they can use as an orientation when initiating and implementing a collaboration and 'how far they can go' without 'contravene' media laws. For example, when an organization sponsors money to soap opera producers for a resource efficiency episode of a series and they strongly recommend sending a specific message in a storyline – for example that preheating an oven saves 20 percent of energy – can this be considered as an influential act? Can it be considered as an influential act when TV makers first have to 'get convinced'? And can it be defined as a non-influential act when TV makers agree on suggestions for messages coming from their sustainability partners right from the start? Visibly, future media legislation has to deal with these questions. Especially the differentiation between product-placement – often done by businesses – and (social/sustainability) topic placement needs to have more clarification. It could be recommended to establish specific legislative standards and guidelines for the three entertainment approaches of governmental organizations, NGO's/associations and business described above. Volpers et al. [67] supports this by emphasizing that entertainment collaborations in the field of sustainability topics will by trend increase, so Germany and other countries may do good to think about specific collaborations guidelines and ways of monitoring and sanctioning them. For example in the Netherlands, it is intensively discussed to introduce a media committee, (1) which supervises entertainment collaboration approaches from the initiation to the end and (2) which gives sanctions, when legislations are violated. Such a committee may contribute to transparency of entertainment collaboration approaches and a documentation of positive lighthouse projects could be possible, while – in contrast to that – negative examples also can be pointed out. In consequence, collaboration approaches would get more comprehensible to the public and not each and every collaboration would stand under the general accuse of 'violating legislation'. The mapping, according to the different types of senders (governmental, NGO or business), could be useful to sort the various legal issues, so that each sender has an overview of potential media strategies it can use, as well as, the according legal issues associated with it. The legal issues however are not dealt with in this paper as this would lead to far at the beginning, but if the mapping proves useful, there could be a further refinement of the mapping suggested.

11. Recommendations

During the past decade, several German governmental organizations, NGO's, associations and businesses are communicating climate change messages in a strategical, affective manner. These messages are mainly targeted to reach middle and lower socio-economic consumer groups. The paper suggests that these approaches can be related to E-E. Based on this, the paper provides three recommendations:

1. ***Different agents and media strategies***: It makes sense to differentiate the existing agents into three different organizational types of approaches that can recently be found in E-E field: (I) The Governmental Entertainment Approach, (II) the NGO/Association Entertainment Approach and (III) the Business Entertainment Approach. These three approaches differ in (A) the sender of the pro-sustainability messages, (B) in their targeted consumer groups, and (C) in their media approaches to reach lower socio-economic groups with climate-friendly messages.

2. ***Two paths for further research regarding Entertainment-Education ((1) Improve approaches through theory, (2) Generate new theory by analyzing approaches)***: In Germany, many approaches are existent, which can be related to the E-E strategy. So far most of these approaches are not yet theoretically founded. This paper suggests two different paths for further activities:

   a) *improve* existing approaches by using theoretical foundations from E-E theory. This comprises at its core (I) to do formative, process and summative effect research on the messages and (II) to use E-E theory from the field of social psychology, sociology and communication science for further improvement and

   b) *generate* new theories in the field of E-E by analyzing existing approaches used by government organizations, NGO's and businesses in the media to communicate climate change. Analyzing these paths may lead to new application areas and theories in the E-E field.

3. ***Learning from other countries***: Regarding the first path of the second recommendation (Improve approaches through theory), Germany can learn from the international field where a theoretical foundation of E-E projects is established (at least in the governmental arena). This could comprise formative and summative research for E-E in Germany.

Implementing theoretical foundations to the current approaches and analyzing the approaches for generating new theory may be important future steps in the field of E-E. This includes doing research on the effects that pro-sustainability messages have on the audience members' knowledge, attitudes and behaviors. These and other research results may contribute to deepen and extend the suggested threefold mapping and its characteristics for reaching middle and lower consumer classes with climate-friendly messages.

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