

Article

(Re)storying Sustainability: The Use of Story Cubes in Narrative Inquiries to Understand Individual Perceptions of Sustainability

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Abstract: Narratives represent storied ways of knowing and communicating. Therefore, storytelling, framing and narrative analyses have always been a key feature in media and communication research. In this paper, an innovative approach to narrative inquiries is introduced to capture reflections on individual experiences of sustainability over time. Storytelling is perceived as an act of problematization and, at the same time, as method of analysis. Using Rory's Story Cubes® (dices with pictograms), we stimulated 35 interviewees from various cultural backgrounds (Asian, European, Anglo-American) to story life events that they relate to sustainability and put it into order and meaning. Our analysis and evaluation of the interviews focused on the story as a whole, which was then linked to the individual biographical background to understand motives and the moral frame(work) for problematizing (un)sustainable behavior. In particular, we focus on problematization as core process of storytelling and complement existing approaches coming from actor-network theory and Foucault's discourse analysis with Entman's concept of framing. In this paper, this innovative form of a narrative inquiry is put up for discussion for environmental communication research in order to create a better understanding of individual perceptions of sustainability and sustainability related issues.

Keywords: sustainability communication; storytelling; framing; problematization; narrative interviews; triangulation

1. Introduction

Over the last two decades, sustainability has become a mainstream phenomenon and a normative framework on an individual and organizational level as well as in public discourses. At least in western countries, there is a common sense that the idea of sustainability is related to the acceptance of the Sustainability Development Goals of the United Nations as part of the Agenda 2030 [1] and has to be negotiated in public deliberation. Sustainability is defined as the fact that a given activity of action is capable of being sustained and therefore continued [2] (p.61). Today, the SDGs and the related 'limits of growth' [3] are frequently used as an important goal set by governments, NGOs and businesses. In the public sphere, sustainability includes normative ideas: Meeting global needs, responsibility for the future, protection of the environment, and the need for participation and engagement—as well as communication [4]. However, the conceptualization of the ideas and ways of their realization is a matter of contestation and deliberation. Thus, with a constitutive interpretation of human action and communication as core dynamic of social behavior, sustainability communication covers the relationship between humans and nature, meaning their environment as well as related social discourses [5,6]). Communication plays a crucial role for sustainable development, even if the unsettled

nature of sustainability and the normativity of related decisions are seen by some as a limitation on efforts to achieve meaningful sustainability [7] (pp. 30–32) and sustainability is described as “wicked problem” [8] (p. 4434) [9] in a complex societal debate associated with sustainability.

Sustainable development can be defined as a process of searching, learning and innovation of the society [10], which challenges communication about sustainability. Sustainability means, to reflect on the interrelationship between natural and social systems on various dimensions of space and time. This reflection is always connected with evaluations, it is “spiced up” with morality and value based decision-making processes and implies a variety of meanings of sustainability.

A debate about this plurality of narratives and meaning of sustainability has been raised in academic outlets, professional media, and public debates lately. Sustainability is described as a highly contested term and often labelled as an “empty” word (King, 2013) [11] or a concept where discourses on different levels have managed to overextend its meaning “to the point of trivialization” [12] (p. 13), mainly because the terms are blurry, fuzzy and ambiguous [13], a discernible definition of the word has rarely been discussed and analyzed.

On the one hand, the plurality of meaning and the lack of consensus between science, politics, business spheres and the variety of related public discourses is generating uncertainty for individuals, causing emotional and cognitive detachment from the concept itself and hindering appropriate practices that would respond to the risk of unsustainable living. On the other hand, this stresses the normative character of sustainability, the character of a guiding idea with a high degree of morality [14]. Therefore, sustainability is not an object of public discourses but much more a normative idea [15] (p. 340), a normative claim for a specific action as well as a framework to evaluate events, actions, developments and objects by means of this normative criteria. Research in a (hardly) demarcable area of “sustainability communication” [5,6,16] focuses mostly on sustainability as framework for strategic communication or marketing, or for public communication (sustainability in the media). Sustainability also works as an analytical frame for environmental communication. However, there is a lack of research trying to understand the influence of sustainability as a normative framework on individual behavior.

Using the here presented storytelling approach, the concept of sustainability will be deconstructed. Furthermore, focusing on problematization of events and actions evaluated as (un)sustainable, it is possible to learn about its normative character influencing individual behavior. In the following chapters, the abovementioned research gap is identified and a new methodology is introduced as “re-storying sustainability”. After explaining the innovative methodological approach, the findings of the narrative interviews are presented and discussed. In addition, in the discussion, an outlook on the academic contribution of this project towards the environmental communication research is given.

2. Literature Review

The state of art in science communication as well sustainability science right now includes remarkable width [17,18]. However, this creates complicated challenges for those interested in sustainability communication, which is already debated in the very few pieces of literature in this area [19–21]. Sustainability studies and other scientific engagement with the notion of sustainable development can be demarcated as a field of research itself with an interdisciplinary, as well as transdisciplinary character [5,6]. The focus is on the tensions between natural and social systems and the question of their transformative potential to reach a more sustainable state [22].

Generally, sustainability communication is described as “introducing an understanding of the world, that is of the relationship between humans and their environment, into social discourse” [6] (p. 6). Newig [23] and Genc [24] distinguish between communication *about* sustainability (discourses, broader public debate on sustainability related issues) and *of* sustainability (information, campaigns, education, documentaries). We agree with their idea of sustainability communication as framing concerns and structuring facts, arguments, and claims through establishing a common understanding of the issue at stake [5,24,25]. However, we add another aspect of sustainability communication in terms of (consciously

and/or unconsciously) *communicatively constructed morality*. This is needed as the background for the latter description of the narrative reconstruction of (un)sustainable behavior.

The differentiation of the now three dimensions of sustainability communication is grounded in sustainable communication studies as an inter- and transdisciplinary area of research, happening at the intersection between *environmental communication*, *science communication*, as well as *sustainability studies*. Environmental communication as a research area [26] mostly focuses on sustainability communication at the intersection to organizational communication [27] meaning communication of sustainability [16,28–31] or, more specifically, sustainable consumption communication [32,33]. However, here we detect a research gap concerning a broader perspective on all communication processes where information, interpretations, values and opinions are debated regarding sustainability influencing individual behavior or its evaluation issues. Since communication about and of sustainability constitute our specific perception of the communicatively constructed morality attached to sustainability issues.

Thus, in our project, we seek to understand the problematization of sustainability from an individual's perspective, in other words, the contradictions and the degree of morality in sustainability communication from an individual perspective. We assume that sustainability, as normative framework does not only influence individual behavior with its certain degree of morality; much more, confronted with it, individuals try to deconstruct sustainability to make it applicable as evaluation of their behavior.

3. Theory: Narratives and Problematization

There is a common body of knowledge, that people mainly acquire information about climate change and environmental issues from media reporting [34]. This media reporting, in turn, shapes public perceptions of climate change [35]. Nevertheless, there is a research gap in terms of where sustainability as a moral framework “comes from” and which source of information influences the individual perception of “what is good” and “what is bad” from the perspective of a sustainable development.

Sustainability as such can hardly be “materialized” and deconstructed in the realm of a concept; this makes it hard for individuals to understand (and utilize) the framework [7] with the abovementioned strategies in order to cope with the normative character of sustainability. The way they deal with the “wicked problem” of sustainability [8] (p. 4434) and whatever strategy they apply, individuals try to make sense of it in order to organize their behaviors [36–40]. Sense-making processes of a certain phenomenon or object work as guidelines for individual action and guide both, communication and social practices [41] (p.88).

Research on similar and sustainability related issues such as climate change shows that social representations as a set of values, ideas and beliefs as well as practices that are shared among a group of people, a community or in a specific cultural context, rarely include personally relevant impacts and solutions [42]. Here, Laszlo [43,44] introduces narratives as an expressive vehicle of common-sense thinking [42]. People create stories in order to better understand the world and they share the stories with others. Narratives represent storied ways of knowing and communicating [45]. A narrative can be defined as the expression of experiences made by (human or nonhuman) character. In other words, a narrative is the attempt to define what it means to be living and what it means to be human [46]. This experience is made through events which arise in action [47] (p. 312) and have a so-called *turning point* that leads to a resolution [46,48–50].

So far, sustainability has been approached from a very science dominated perspective [47] (p. 311). From this perspective, narrative approaches are criticized as not necessarily having objective, rational, and socially independent goals; on the opposite, Frank argues that narratives “can construct and reflect knowledge representative of the place-, time- and event-dependent dimensions of life” [47] (p. 311). A narrative mode looks particularly for very specific connections between events, where we see the link to storytelling approaches in communication studies [51–55], in health and environmental communication [56–59].

This literature shows, that a story or a narrative are processes of knowledge construction and express the subjective, value-laden and very a-rational experiences [60]. Hence, a narrative is

“the organizing principle of how people give sense of the world” [44] (p. 103) and make sense of life and how we act in it. Furthermore, the constructivist character of narrative leads us to understand our lives; a narrative can be described as means to construct social representations and the framework to study them [44] (p. 164). Then, a narrative analysis involves retrodiction, “it is the end of the temporal series ... we know it was a beginning because of the end” [61] (p. 74).

Thus, for our theoretical conceptualization and study, we draw on Heidegger and his explanation of narratives as means to explore the alternative choices that might lead to feared or to hoped for futures [62]. Thus, a narrative can serve as our chief *moral compass* in the world [47] (p. 312).

We link this narrative approach to a storytelling approach with specific attention to the plot that we understand as “problematization”. To problematize means the construction of problems or, at least, the creation of confusion over an issue. The process of problematization is used in research as strategy to develop research questions [63]. As well, problematization is a key term in Foucault's work, here, with a strong focus on objects [64]. With a communication perspective and a narrative approach, we work with a broader understanding, linked to the storytelling approach and the idea of a plot (and dramaturgy). Thus, instead of going back to asking for the epistemological significance of an idea or concept, we understand problematization as social practice, challenging existing perspectives or practices. Thinking about a complex issue like sustainability and strategies to deconstruct the issue and to harmonize (or not) individual behavior with a certain normative framework, we assume that problematization is happening communicatively. Problematization is a process of social construction, reflecting the multi-dimensionality of the idea of truth and it subjects the existing doctrines of knowledge to reflection, introspection and critical inquiry. Problematization has the character of a process, it is an action per se starting with the recognition of a situation or idea as problematic and increasing the level of involvement [65]. We do see problematization as key term in sustainability communication research, because if people involve themselves in an issue by problematizing it, they are invited to transform the situation that causes a problem. Thus, we assume, without a problematization of an issue with sustainability as reference point, there is no engagement in finding a solution in the field of sustainable practices. Problematization is a process of (ethical) reflection, of critical thinking and dialogue; it implies the demythicization of common knowledge or common sense issues [66], a deconstruction of a situation taken for granted. Problematization allows new viewpoints, consciousness, hope and action to emerge from it [67].

From a communication perspective, Entman's framing approach is seen as a complement to these existing concepts of problematization. Generally, framing is one of the most popular frameworks in communication and media studies, as well, many studies in the field of environmental and communication have analyzed media frames [68,69] or framing processes [70,71]. Most theoretical conceptualizations as well as applications in the area of environmental communication focus on frames as they appear in public discourses. Media and the covered interpretive storylines are of interest—as well as construction processes behind that, i.e. journalistic framing [72]. Frames “set a specific train of thought in motion [73] (p. 361) [74] and structure the issue, define why a decision is necessary and who or what is responsible [75–78].

For a storytelling approach to analyze storied ways of sustainability, we rely on Entman's concept of four process elements of framing [79]: Problem definition, causal attribution, treatment recommendation and moral evaluation. Based on this, we understand problematization as core process of framing, and *sustainability as masterframe, as point of reflection* for individual behavior. *In alignment with sustainability, individuals problematize their behavior*. Trying to understand individuals' perception of sustainability, the last dimension of Entman's concept of framing seems particularly interesting: Moral evaluations always refer to individual or collective actors and their behavior which is evaluated as “good” or “bad”, behavior that they are either blamed for or highly acclaimed.

To sum it up, using the framing approach, we don't want to find “frames of sustainability”, comparable to typologies of frames in environmental debates (Pandora's box, economic development, uncertainty etc., see [73]). Instead, we complement Foucault's “intellectual” focus on problematization

with a communication studies perspective, meaning we want to engage people in problematization entailing questioning beliefs held to be true by society in general and investigating to the ground for what someone says in their story itself. Then, problematization is the definition of the nature of a problem in a specific situation by an individual (or group) [80,81] or the defamiliarization of common sense [66]. With our specific methodological approach of stimulating a story to detect problematization as a core process of storytelling in general, we can operationalize the complementarity of narratives and problematization and better understand how (much) individuals apply sustainability to evaluate their behavior.

4. Methodology: Storytelling

As discussed above, narratives are not only a mode of knowing, but much more a process through which knowledge is constructed and sense is made, including problematization and moral judgements. The “narrative turn” in qualitative research, narrativity has been applied and employed in social theory (overview in [47] (p. 312 f)) Eckstein [82] and Sandercock [83] explain, that each individual has a core story and that we become our stories by telling and re-telling them and “reproducing” ourselves. This paper will not ask for greater social representations, i.e. in the media. Instead, we are interested in the storied ways of sensemaking of the complex framework of sustainability and learn how far sustainability acts a *moral compass* in these stories.

The literature on sustainability and sustainability communication in particular proposes that the sustainability issue needs alternative methodological ways for analysis. Mainly its interdisciplinary as well as transdisciplinary character challenges analytical attempts [6,9]. Methodologies to capture situations and contexts and for the rigorous processing of qualitative variables are needed, as well as a focus on methodologies relating to kinds of indigenous, traditional and local knowledge [84]. This accumulated wisdom should be integrated into conventional scientific systems, regional capacity used and all social groups with their social practices integrated [84].

This, in turn, implies critical methods involving “posing questions, including awkward and unpopular ones . . . asking how and why these things come to be” [85] (p. xx), which includes future research methods like intervention research [86] and story tracking with narrative interviews [87]. More precisely, in our project, our first priority was to learn about the degree of normativity in sustainability communication, we ask the following (overarching) research question: *How do individuals perceive sustainability*, accompanied by the sub-question of *how (much) sustainability works as normative framework in evaluation individual behavior?*

To get a direct access to people’s interpretations, associations and understanding of sustainability, we use storytelling as method of analysis. We focus on the ways in which people make and use stories to interpret the world. Embedded in our constructivist approach, we are not interested in whether stories that are told are true or not; also, a story does not transmit a set of facts about the world; instead, stories are seen as social products that are produced by people in the context of a very specific social, cultural and even historical (biographical) context. Through a story, people represent *storied ways of themselves* and their worlds; in other words, their social world itself is storied [61,88]. Ricouer [89] says that a story is the key means through which people produce their identity. A story as a narrative has a temporal dimension and links the past to the present. They are characterized by an element of transformation, an action and characters along a plot line. The “emplotment” of the story is a process through which narratives are produced. Another fact is significant for the presented study: Narratives must have a point, a so called “so what-factor”, which often takes the form of a moral message. As a method of analysis, the storytelling approach involves “life story research” or oral history, using semi-structured interviews with a qualitative approach; all narratives are co-constructed—which is important for thematic analyses [90], or grounded theory approaches [91,92]; the so called “Interpretive Phenomenological Analysis” [93] uses a similar approach. Compared to narrative inquiries applied in diverse disciplines [39,94], we use the storytelling approach embedded in a narrative interview [95].

By using storytelling as a method, we thought about a new version to stimulate the storytelling, followed by a narrative analysis to show how participants actively work with and use that content. Individuals “craft narratives from experiences, tell these stories internally and to others and ultimately apply these stories to knowledge of self, other and the world in general” [96] (p. 438). Thus, the interviews were conducted using *Rory’s Story Cubes*® (see Figure 1), in addition to a semi-structured interview guideline, which was used to discover each interviewee’s autobiography. It is a picture-elicited storytelling approach (PEI) as research method and “based on the idea of inserting a photograph into a research interview” [97].

In visual storytelling participants are encouraged to tell a story that emerges from the sequences of pictures or other visual stimuli. Photographs have often been used in interviews in the past, to evoke emotions and enable the sharing of memories. Our specific choice of visual stimuli had two main reasons:

1. In comparison to photographs the rather abstract form of pictograms and images on *Rory’s Story Cubes*® enables the participant to use it as a visual aid, with a broader range of free interpretation. It is less likely to influence memory conformity;
2. The game-like approach activates creativity, enables a state of personal story-telling and facilitates dialogue. It fosters a rather relaxed, playful atmosphere and lessens the pressure on the participant. The attention is redirected to the game and the interviewee no longer feels like the center of attention [98].



Figure 1. Set of cubes.

After an informal description of the procedure, we started with compiling the stories (“Please tell me a story that you personally link to sustainability”). The pictogram dice were used as a visual stimulus, which could aid the interviewees to tell their sustainability related story when discussing complex issues [99]. We asked our participants to pick up and throw the nine dice. They were encouraged to have a look at the images, choose at least two dice and organize them in a way that made sense to them. They were invited to tell their sustainability related stories they connected to the images (example Figure 2).

Afterwards, if not already mentioned in their story, they were asked how they felt about the experience they had described, such as guilt or pride and right or wrong to understand the degree of normativity related to sustainability as moral framework in Heidegger’s sense of a narrative as a tool to explore what we do or what we do not wish to become [62]. The personal relation within the stories were encouraged by the initial question and probes during the storytelling. It guided the participants away from generalizations and towards narrative accounts.

After the sustainability-story had been told, the interviewer asked guideline-based questions on the feelings the participant had towards their own role within their story, as well as their personal

upbringing and contact with the topic of sustainability throughout their life. This is seen as part of the narrative method because it employs self-narrated lived experiences in order to find a meaning and roles in one's life. Narratives reconstruct the past and anticipate the future [100] (p. 11). We do not distinguish the story from the plot in narratives [101], because the plot includes time and cause, but is also arranged and connected by a unified theme [102]. In this way, we do not see narratives as purely chronological accounts but rather as a story in the sense of an *emplotted narrative*; the emplotment and the interpretation were analysed related to each other). Thus, we complement the key characteristics of storytelling [103,104] with the normativity inherent in the concept of sustainability.



Figure 2. Example dices.

To sum it up, each interview was conducted using Rory's Story Cubes®, as well as a set of guiding follow-up questions. Based on the concept that the narratives provided by the participants are a "product of narratives of self-consistency through life's changes" [105], we assume that narrative identities are constructed through a series of narrated life stories. Therefore, as an analytical approach, we can learn from the world, social representations and the perceived other from stories that are told—here, in the specific and innovative form of a narrative inquiry.

The sample consisted of 18 female and 17 male participants, ranging in age from 25 to 54 years (average age: 33.52 years), including people from 8 different nationalities (American, Australian, Austrian, English, German, Israeli, Japanese, Thai).

5. Analysis: Story Reading

Problematization was introduced as the key process of a storytelling approach. As a form of analysis, problematization gives the answer to the question of how and why a certain behavior, phenomena, action or process became or is seen as a problem. As explained in the theory, we don't distinguish between problematization as the object of inquiry and problematization as a way of inquiry; thus, problematization is the core of a very specific analytical approach which we call "re-problematization" [64]. We chose an innovative methodological approach to get people to tell their sustainability related story and related this story to their individual biographical background and influencing context factors. Aiming to understand individual perceptions of sustainability and sustainability as a framework to evaluate their actions and behavior by means of sustainability as normative criteria, in our analysis we tried to understand, which sustainability related issues the interviewees problematized and why and how.

Therefore, after literally transcribing the interview recordings, we analyzed the content of their story with qualitative content analysis [106], using the technique of inductive category formation. In this procedure the categories are being developed inductively based on the text material along a selection criterion determined by the theoretical grounds. Text analysis was performed using

the online tool [107]. The interviews which were conducted in German, were also transcribed and categorized in the original language; the results later being translated into English.

For a further analysis we chose a form of “content triangulation” where we compared (1) the content of the story with (2) family influences within the participants biography (internal defining moments) as well as (3) further influences from their social and educational environment throughout the participants life (external defining moments).

Looking at the story directly, the focus was on the formal framework and the content of the story with a specific relevance of the problematization of an issue, the insights and understandings of and references to sustainability as a normative framework. After that, we compared and contrasted the stories for similarities and difference in content style and interpretation of sustainability.

6. Findings: Re-Storying

As the interviews were qualitative in nature, there was a vast amount of information within each interview. Although various themes such as the source of each participant’s sustainability knowledge and the extent of that knowledge emerged, only information which was relevant for/ to answering the research question, how individuals perceive sustainability, were analyzed.

6.1. The Story Itself

Topics, which appeared frequently throughout every interview, were the explorations of ‘right doings’—what should be done—and ‘wrong doings’—what should not be done, in other words, ‘sustainable behavior’ and ‘unsustainable behavior’. When speaking of sustainable behavior, more often than not, the participants related these actions to ‘what people should do’, referring to something similar to the concept of a ‘lifestyle’. One of the most prevalent topics was plastic waste and packaging—and the conflict and feeling of guilt of not being able to avoid it in every day consumption practices.

Stimulated by the thrown and selected dices in Figure 3, the interviewee told the following story:

“I left my house and I went to the store and I just took a bunch of plastic bags that I’m also going to do nothing with. I’m going to leave them next to my other nice cloth bags and just I keep getting more of them so, you know, we are not really great about that”.

(Female, 30yrs., USA)



Figure 3. Three dices.

The story shows the issue of responsibility often linked to sustainability. Not only the mentioned interviewee struggles with the antagonism of individual and institutionalized responsibility. On the one hand, she feels responsible (“I took the plastic bags”), on the one hand, reflecting on her story, she mentioned that the system has to change and supermarkets are responsible for (not) offering alternatives.

Another example was a participant who compared his tendency to turn off household electronics before leaving the house to something as normal and necessary as paying attention to his clothing and appearance. He described this by saying

“... when I left the house, I forgot to turn off my light. I just went back to my room, turned off the light or air conditioning, and went out again (...) we feel like it is the same feeling like, when you wear different kinds of socks. You feel like something is strange. So, you want to- (...) Yeah, correct it”.

(Male, 36yr., Japan)

For this particular interviewee, following this ‘sustainable behavior’ is embedded into his daily routine, just as much as putting on clothes is. Therefore, it could be concluded that it is already a part of his lifestyle. An unsustainable behavior feels unnatural to him, which leads to an inner necessity to correct his own actions.

On the other hand, when speaking about ‘unsustainable behaviors’, the participants linked this to their own or to others’ ‘bad lifestyle’ choices. These ‘bad lifestyles’ were frequently followed by justifications of why they think these ‘bad behaviors’ continue to happen. The justifications given by the participants recurrently paired with reasoning which accommodate or create convenience for their existing lifestyle. An example of this could be found in the same interview, where the participant stated,

“We had to go to driving school. So, we often hear to stop idling. Idling, which is (when) sometimes we are just waiting (for) someone in the car and you use air conditioning. But if you turn it off, you can see how much it could save the gas or CO2 (emission)”.

(Male, 36yrs., Japan)

The participant showed his knowledge regarding the connection between car exhaust and CO2 emission; nevertheless, he still justified his ‘unsustainable behavior’ through this small gesture to accommodate his convenience for commuting or travelling.

Another common topic was the personal wish to change one’s own behavior and stories that included epiphanies and typical “breakthrough” moments where participants realized, that their own doing had an effect, also on a global level. One participant described such a moment as follows,

“I had to dig the whole garden (...) this was the first time, that I had to touch the real soil in my life and it was the first time we planted. I grew tomatoes. The first time I saw, that I put the seed in and later on it becomes a plant. It reminds me of the first time I really connected to nature. It all made sense, the whole meaning of nature”.

(Male, 54yrs., Israel)

The overall results of the research showed that a majority of participants related their sustainable behavior to their good lifestyle. In other words, individuals perceive the notion of sustainability as a lifestyle, because when justifications regarding unsustainable behaviors were discussed, participants often offered reasoning in order to accommodate convenience in their lifestyle.

6.2. The Story behind the Story

To understand the multiple causal forces governing human behavior and social dynamics, as well as to determine the impact of social influences, we differentiated between the affect the immediate family had during the participant’s upbringing and further (external) sources of impact they named. A final step of the analysis was the comparison of differences and similarities between topics within the stories and the community-based features that were mentioned as defining influential factors by the participants. We found linear stories, where the biographical story of the immediate family during the participants’ upbringing resonated with their behavior in later life. As well as stories that showed opposite development, where the surroundings in later education showed a significant impact on the way the participants re-evaluated the idea of appropriate sustainable behavior.

The following statements illustrated these two aspects:

“I’m a nature lover. My parents have been hiking even before I was born, pretty much. With me in my mom’s belly. Before I could walk, in my dad’s backpack just as a traveler. I’ve loved nature ever since.

So, it's certainly something my parents brought about. My mom likes to use and reuse things in a good way. So, recycling was an issue. Eating up, not to leave anything on the plate, I still do that".

(Female, 29 yrs., Germany)

"In my house, when I was a child? Well, my parents there were not much into this topic (...) when they were young, they were just making money (...) we had two cars and we burned a lot (...) of fuel but still So, there was not a lot of awareness- they didn't change at all. (...) Maybe, here in the university there was like a little of awareness, you know. (...) I was travelling a lot. I met a lot of people who were aware about it".

(Male, 46 yrs., Austria)

7. Discussion

The fairly new debate on sustainability communication draws upon existing academic research as well as upon transdisciplinary scholarship on environmental, risk and science communication. Global sustainability issues are characterized by high complexity and uncertainty. Focusing on the individual's perception of sustainability, and their understanding of related—complex—normative frameworks influencing their social practices, we have to acknowledge multiple and sometimes-conflicting objectives individuals are confronted with [8,108].

The techniques of qualitative content analysis were used as a basis to analyze the 35 interviews, which were conducted by using Rory's Story Cubes® (dices with pictograms), to find meaning and to make sense of the sustainability-related stories or life events. Our evaluation of the interviews focused on the story as a whole, which was then linked to the individual biographical background to understand motives and moral frameworks for unsustainable behavior.

The research aimed to find out the degree of normativity in sustainability communication and how this resonates with individuals on a personal level. In other words, we wanted to learn how individuals perceive sustainability from all of their sustainability-related communication which they were exposed to and how much they relate the issue of sustainability to their personal experiences. Therefore, to achieve this goal, we asked the participants to share their sustainability-related personal stories, stimulated by pictograms on the dices.

More often than not, when discussing a complex issue, people tend to mentally prepare one 'good story' which they think is relevant to the topic in discussion. However, we wanted to steer the participants away from those 'stories' and seek for something organic, not a well-prepared story produced to make them 'sound good'. This is how Rory's Story Cubes® became crucial for the research, as the pictograms are random. The dices usually caught the interviewees off-guard because they had to tell a story which was related to the pictograms that appeared on the dices they had thrown. By adding the perspective to the individual's biography as well as contextual information influencing their moral evaluation, we meet the meaning of problematization as a pedagogical dialogue, as a reflection process, without taking common sense for granted. A problematization happens within the original context, evaluating it leads to action. It is a challenge that invites people to transform their situation.

Where can we go from here? It could not be denied that storytelling plays an important role in human communication. Atkinson [109] (p. 2) said that "storytelling is a fundamental form of human communication. It can serve an essential function in our lives. We often think in story form, speak in story form ... ". The author also said that when individuals retell a story of their experience, it provides them with a deeper understanding of their experience because they had to reflect upon what had happened. This leads to one of the most interesting secondary output of this research, the use of Rory's Story Cubes®. It was proven to be a good conversational starter with the interviewees.

As mentioned, the notion of sustainability comes with a great deal of complexity. When we mentioned the topic to our interviewees, more often than not, they tense up and showed signs of uneasiness. However, the cubes themselves were originally designed to function as a board game. Therefore, using them in the interviews added aspects of fun and informality to a complex topic of

interest. The seemingly simple act of throwing dice transformed the interview situation and changed the role of the participants into a more proactive approach. We found that participants eased up and had proneness to engage using the dice.

With our specific approach of stimulating a story to detect problematization as a core process of storytelling in general we complement existing storytelling approaches with “problematization” and complement existing conceptualization of problematization with framing and storytelling as a possibility to transform the problem into a solution. Even though one can argue, that narratives are based on memories and therefore limited, the use of visual stimuli can enhance these memories and provoke a higher level of participant-led involvement. Furthermore, it can be mentioned that one of the useful effects of the dices was their ability to trigger personal experiences involving aspects of sustainability. Whereas a great advantage of our approach was the variability of choice, as the Story Cubes did not determine the order of telling, by neither convention nor presentation. Each participant was able to put the dice into a different order; it was in no way prescribed. The visual method can be seen as a fruitful supplement to explore a wider range of emotions, memories and stories.

The story-telling approach using Story Cubes as a research method has the potential to enhance a deeper understanding of individual perceptions of sustainability and even hint at possibilities to intervene in sustainability related behavior.

8. Limitations

One potential limitation of our study was that the participants were selected from only a few areas and were, due to their professional background, often very conscious towards the topic of sustainability. Perhaps a broader sample size would have strengthened the analysis. Nevertheless, conclusions can be drawn towards the complex interaction between individual biographical background and one’s moral frameworks for sustainable or unsustainable behavior.

There are various benefits and some potential challenges of using Story Cubes as visual stimuli. Even though most of the participants seemed to be stimulated positively by the Story Cubes, we must not underestimate the possibility, which interviewees may end up pursuing their own agendas, telling preformulated stories, rather than engaging with the interviewer and getting into the process of narrative storytelling. It has to be pointed out that the picture-elicited research method requires considerable attention to concerns of power and representation on the part of the interviewers and the research team in the background.

The main objective at the beginning of our research was to offer and literally “play around” with a new methodological approach. Overall, the innovative method offered a substantive and theoretical contribution through the analysis and interpretation of the social construction of sustainability as well as a critical reflection on the use of storytelling as a method in sustainability communication research in general.

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References

1. United Nations (n.D.). Sustainable Development Goals. Knowledge Platform. Available online: <https://sustainabledevelopment.un.org/?menu=1300> (accessed on 10 August 2019).
2. Johnston, P.; Everard, M.; Santillo, D.; Robèrt, K.-H. Reclaiming the Definition of Sustainability. *Environ. Sci. Pollut. Res. Int.* **2007**, *14*, 60–66. [CrossRef] [PubMed]
3. Meadows, D.; Randers, J.; Meadows, D. *Limits to Growth: The 30-Year Update*; Chelsea Green Publishing: Hartford, VT, USA, 2005.

4. Adomßent, M.; Godemann, J. Sustainability Communication: An Integrative Approach. In *Sustainability Communication*; Godemann, J., Michelsen, G., Eds.; Springer: Dordrecht, The Netherlands, 2011.
5. Weder, F.; Einwiller, S.; Eberwein, T. Heading for New Shores. Impact orientation of CSR communication and the need for communicative responsibility. *Corp. Commun. Int. J.* **2019**, *24*, 198–211. [CrossRef]
6. Godemann, J.; Michelsen, G. *Sustainability Communication. Interdisciplinary perspectives and Theoretical Foundations*; Springer: Dordrecht, The Netherlands, 2011.
7. Marshall, J.; Toffel, M. Framing the elusive concept of sustainability: A sustainability hierarchy. *Environ. Sci. Technol.* **2005**, *39*, 673–682. [CrossRef] [PubMed]
8. Herrick, C.N.; Pratt, J.L. Communication and the Narrative Basis of Sustainability: Observations from the Municipal Water Sector. *Sustainability* **2013**, *5*, 4428–4443. [CrossRef]
9. Weder, F.; Krainer, L. Zitationsvorschlag. *MedienJournal* **2011**, *35*, 2–3. [CrossRef]
10. Hirsch Hadorn, G. Optionen und Restriktionen: Synopse und Ausblick. In *Transdisziplinäre Forschung in Aktion. Optionen und Restriktionen nachhaltiger Ernährung*; Hadorn, G., Maier, S., Wölfling Kast, S., Eds.; Vdf Hochschulverlag AG an der ETH: Zürich, Switzerland, 2002; pp. 221–226.
11. King, D. It's Time to Ban the Empty Word 'Sustainability'. *The Conversation*. 2013. Available online: <http://theconversation.com/its-time-to-ban-the-empty-word-sustainability-17612> (accessed on 10 August 2019).
12. Ott, K.; Muraca, B.; Baatz, C. Strong Sustainability as a Frame for Sustainability Communication. In *Sustainability Communication Interdisciplinary Perspectives and Theoretical Foundations*; Godemann, J., Michelsen, G., Eds.; Springer: Dordrecht, The Netherlands, 2011; pp. 13–26.
13. Fischer, D.; Haucke, F.; Sundermann, A. What does the Media mean by 'sustainability' or 'sustainable development'? An empirical analysis of sustainability terminology in German newspapers over two decades. *Sustain. Dev.* **2017**, *25*, 610–624. [CrossRef]
14. Grunwald, A.; Kopfmüller, J. *Nachhaltigkeit*, 2nd ed.; Campus: Frankfurt, Germany, 2012.
15. Hoppe, I.; Wolling, J. Nachhaltigkeitskommunikation. In *Forschungsfeld Wissenschaftskommunikation*; Bonfadelli, H., Fähnrich, B., Lüthje, C., Milde, J., Rhomberg, M., Schäfer, M.S., Eds.; Springer Fachmedien Wiesbaden: Wiesbaden, Germany, 2017; pp. 339–354.
16. Weder, F.; Karmasin, M.; Krainer, L. *The Sustainability Communication Reader. A Reflective Compendium*; Springer: Dordrecht, The Netherlands, in press.
17. Krcmar, M.; Ewoldsen, D.R.; Koerner, A. *Communication Science Theory and Research: An Advanced Introduction*; Routledge: Abingdon, UK, 2016.
18. Gregory, J.; Miller, S.; Miller, S. *Science in Public: Communication, Culture, and Credibility*; Perseus Publ.: New York, NY, USA, 2000.
19. Dade, A.; Hassenzahl, D. Communicating sustainability: A content analysis of website communications in the United States. *Inte. J. Sustain. High. Educ.* **2013**, *14*, 254–263. [CrossRef]
20. Brackin, P.; House, R.; Mueller-Price, J.; DeVasher, M.; Layton, R.; Taylor, C.; DeVasher, R.; Minster, M.; Toohey, K. Institutionalized: Organizational obstacles to communicating sustainability. In Proceedings of the 2011 IEEE International Professional Communication Conference, Cincinnati, OH, USA, 17–19 October 2011; pp. 1–5.
21. Allen, M. *Strategic Communication for Sustainable Organizations. Theory and Practice*; Springer: Cham, Switzerland, 2016.
22. Jerneck, A. Structuring Sustainability Science. *Berks. Encycl. Sustain.* **2010**, *6*, 69–82. [CrossRef]
23. Newig, J.; Schulz, D.; Fischer, D.; Hetze, K.; Laws, N.; Lüdecke, G.; Rieckmann, M. Communication Regarding Sustainability: Conceptual Perspectives and Exploration of Societal Subsystems. *Sustainability* **2013**, *5*, 2976–2990. [CrossRef]
24. Genc, R. The Importance of Communication in Sustainability & Sustainable Strategies. *Procedia Manuf.* **2017**, *8*, 511–516. [CrossRef]
25. McGreavy, B.; Hutchins, K.; Smith, H.; Lindenfeld, L.; Silka, L. Addressing the Complexities of Boundary Work in Sustainability Science through Communication. *Sustainability* **2013**, *5*, 4195–4221. [CrossRef]
26. Cox, R. *Environmental Communication and the Public Sphere*, 3rd ed.; SAGE: Thousand Oaks, CA, USA, 2013.
27. Mitra, R.; Buzzanell, P.M. Introduction: Organizing/communicating sustainably. *Manag. Commun. Q.* **2015**, *29*, 130–134. [CrossRef]
28. Rasche, A.; Morsing, M.; Moon, J. *Corporate Social Responsibility: Strategy, Communication, Governance*; Cambridge University Press: Cambridge, UK, 2017.

29. Diehl, S.; Karmasin, M.; Mueller, B.; Terlutter, R.; Weder, F. (Eds.) *Handbook of Integrated CSR Communication*; Springer: Cham, Switzerland, 2017.
30. Elving, W.; Golob, U.; Podnar, K.; Ellerup-Nielsen, A.; Thomson, C. Guest editorial: The bad, the ugly and the good: New challenges for CSRcommunication. *Corp. Commun. Int. J.* **2015**, *20*, 118–127. [[CrossRef](#)]
31. Golob, U.; Verk, N.; Ellerup-Nielsen, A.; Thomsen, C.; Elving, W.J.; Podnar, K. The communicative stance of CSR: Reflections on the value of CSR communication. *Corp. Commun. Int. J.* **2017**, *22*, 166–177. [[CrossRef](#)]
32. Bilharz, M.; Schmitt, K. Going Big with Big Matters. The Key Point Approach to Sustainable Consumption. *GAIA* **2011**, *20*, 232–235. [[CrossRef](#)]
33. Line, N.D.; Hanks, L.; Zhang, L. Sustainability communication: The effect of message construals on consumers' attitudes towards green restaurants. *Int. J. Hosp. Manag.* **2016**, *57*, 143–151. [[CrossRef](#)]
34. Schäfer, M.S. Climate Change and the Media. In *International Encyclopedia of the Social & Behavioural Sciences*, 2nd ed.; Wright, J.D., Ed.; Elsevier: Oxford, UK, 2015; Volume 3, pp. 853–859.
35. Adger, W.N.; Barnett, J.; Brown, K.; Marshall, N.; O'Brien, K. Cultural dimensions of climate change impacts and adaptation. *Nat. Clim. Chang.* **2012**, *3*, 112–117. [[CrossRef](#)]
36. Moliner, P.; Abric, J.-C. Central core theory. In *The Cambridge Handbook of Social Representations*; Sammut, G., Andreouli, E., Gaskell, G., Valsiner, J., Eds.; Cambridge University Press: Cambridge, UK, 2015; pp. 83–95. [[CrossRef](#)]
37. Parry, J. Making sense of executive sensemaking. A phenomenological case study with methodological criticism. *J. Health Organ. Manag.* **2003**, *17*, 240–263. [[CrossRef](#)]
38. Czarniawska, B. *A Narrative Approach to Organization Studies*; Sage: London, UK, 1998.
39. Czarniawska, B. *Narratives in Social Research: Introducing Qualitative Methods*; Sage: Thousand Oaks, CA, USA, 2004.
40. Weick, K.E. *Sensemaking in Organisations*; Sage: London, UK, 1995.
41. Guimelli, C. Locating the central core of social representations: Towards a method. *Eur. J. Soc. Psychol.* **1993**, *23*, 555–559. [[CrossRef](#)]
42. Smith, N.; Joffe, H. How the public engages with global warming. A social representations approach. *Public Underst. Sci.* **2013**, *22*, 16–32. [[CrossRef](#)]
43. Laszlo, J. Narrative organization of social representations. *Pap. Soc. Represent.* **1997**, *6*, 155–172.
44. Laszlo, J. The science of stories: An introduction to narrative psychology. *Routledge* **2008**, 155–172.
45. Hinchman, L.P.; Hinchman, S.K. (Eds.) *Memory, Identity, Community: The Idea of Narrative in the Human Sciences*; State University of NY Press: Albany, NY, USA, 1997.
46. Gass, W. *Tests of Time*; Alfred Knopf: New York, NY, USA, 2002.
47. Frank, A.K. What is the story with sustainability? A narrative analysis of diverse and contested understandings. *J. Environ. Stud. Sci.* **2017**, *7*, 310–323. [[CrossRef](#)]
48. Bal, M. *Narratology: Introduction to the Theory of Narrative*; University of Toronto Press: Toronto, ON, Canada, 1997.
49. Aristotle. *Poetics*; Penguin Books: London, UK, 1996.
50. Miller, J. Narrative. In *Critical Terms for Literature Study*, 2nd ed.; Lentricchia, F., McLaughlin, T., Eds.; University of Chicago Press: Chicago, IL, USA, 1995; pp. 66–79.
51. Spear, S.; Roper, S. Storytelling in organisations: Supporting or subverting corporate strategy? *Corp. Commun. Int. J.* **2016**, *21*, 516–532. [[CrossRef](#)]
52. Dziuban, M. The Power of Storytelling in PR. 2016. Available online: www.cision.com/us/2016/03/the-power-of-storytelling-in-pr/ (accessed on 15 April 2017).
53. Kent, M.L. The power of storytelling in public relations: Introducing the 20 master plots. *Public Relat. Rev.* **2015**, *41*, 480–489. [[CrossRef](#)]
54. Scolari, C.A. Transmedia storytelling: Implicit consumers, narrative worlds, and branding in contemporary media production. *Int. J. Commun.* **2009**, *3*, 586–606.
55. Green, M.C.; Brock, T.C. The role of transportation in the persuasiveness of public narratives. *J. Personal. Soc. Psychol.* **2000**, *79*, 701–722. [[CrossRef](#)]
56. Yoon, G.; Park, A.M. Narrative identity Negotiation between Cultures: Storytelling by Korean Immigrant Career Women. *Asian J. Women's Stud.* **2016**, *18*, 68–97. [[CrossRef](#)]
57. Dionisio, M.; Nisi, V.; Nunes, N.; Bala, P. Transmedia storytelling for exposing natural capital and promoting ecotourism. In *International Conference on Interactive Digital Storytelling*; Nack, F., Gordon, A.S., Eds.; Springer: Cham, Switzerland, 2016; pp. 351–362.

58. Garvin, T.; Wilson, K. The Use of Storytelling for Understanding Women's Desires to Tan: Lessons from the Field. *Prof. Geogr.* **1999**, *51*, 296–306. [\[CrossRef\]](#)
59. Gerrig, R.J. *Experiencing Narrative Worlds: On the Psychological Activities of Reading*; Yale University Press: New Haven, CT, USA, 1993.
60. Bruner, J. *Actual Minds, Possible Worlds*; Harvard University Press: Cambridge, MA, USA, 1986.
61. Martin, W. *Recent Theories of Narrative*; Cornell University Press: Ithaca, NY, USA, 1986.
62. Heidegger, M. *Being and Truth*; Yale University Press: New Haven, CT, USA, 1965.
63. Alvesson, M.; Sandberg, J. Generating Research Questions Through Problematization. *Acad. Manag. Rev.* **2011**, *36*, 247–271. [\[CrossRef\]](#)
64. Foucault, M.; Kritzman, L. *Politics, Philosophy, Culture: Interviews and Other Writings, 1977–1984*; Routledge: New York, NY, USA, 1988; Volume 104, pp. 255–567.
65. Crable, R.E.; Vibbert, S.L. Managing Issues and Influencing Public Policy. *Public Relat. Rev.* **1985**, *11*, 3–15.
66. Weder, F. CSR as Common Sense Issue. In *Handbook of Integrated CSR Communication*; Diehl, S., Karmasin, M., Mueller, B., Terlutter, R., Weder, F., Eds.; Springer: Berlin, Germany, 2017; pp. 23–36.
67. Crotty, M. *The Foundation of Social Research: Meaning and Perspective in the Research Process*; SAGE Publications: London, UK, 1998.
68. Matz, J.; Renfrew, D. Selling 'fracking': Energy in depth and the Marcellus Shale. *Environ. Commun.* **2015**, *9*, 288–306. [\[CrossRef\]](#)
69. Davis, J.J. The effect of message framing on response to environmental communications. *Journal. Mass Commun. Q.* **1995**, *72*, 213–220. [\[CrossRef\]](#)
70. Bigl, B. Fracking in the German press: Securing energy supply on the eve of the 'energiewende'—A quantitative framing-based analysis. *Environ. Commun.* **2016**, *11*, 231–247. [\[CrossRef\]](#)
71. Djerf-Pierre, M.; Cockley, J.; Kuchel, L.J. Framing renewable energy. A comparative study of newspapers in Australia and Sweden. *Environ. Commun.* **2015**, *10*, 634–655. [\[CrossRef\]](#)
72. Brüggemann, M. Between frame setting and frame sending. How journalists contribute to news frames. *Commun. Theory* **2014**, *24*, 61–82. [\[CrossRef\]](#)
73. Newman, T.; Nisbet, M. Framing, the Media, and Environmental Communication. In *The Routledge Handbook of Environment and Communication*; Hansen, A., Cox, R., Eds.; Routledge: London, UK; New York, NY, USA, 2015; pp. 325–338.
74. Weder, F.; Koinig, I.; Voci, D. Antagonistic framing of sustainability by energy suppliers: Dissecting corporate CSR messages in a cross-cultural comparison. *Corp. Commun. Int. J.* **2018**, *24*. [\[CrossRef\]](#)
75. Weder, F. *Verantwortung' als trendige Referenz der Wirtschaftsberichterstattung oder: Der fehlende öffentliche Diskurs über Corporate Social Responsibility*; Springer: Berlin, Germany, 2012.
76. Nisbet, M.C. Knowledge into action. In *Doing News Framing Analysis*; D'Angelo, P., Kuypers, J.A., Eds.; Routledge: New York, NY, USA, 2009; pp. 43–83.
77. Semetko, H.A.; Valkenburg, P.M. Framing European politics. A content analysis of press and television news. *J. Commun.* **2000**, *50*, 93–109. [\[CrossRef\]](#)
78. Gamson, W.A.; Croteau, D.; Hoynes, W.; Sasson, T. Media images and the social construction of reality. *Annu. Rev. Sociol.* **1992**, *18*, 373–393. [\[CrossRef\]](#)
79. Entman, R.M. Framing: Towards Clarification of a Fractured Paradigm. *J. Commun.* **1993**, *43*, 51–58. [\[CrossRef\]](#)
80. Callon, M.; Latour, B. Unscrewing the big Leviathan: How actors macro-structure reality and how sociologists help them to do so. In *Advances in Social Theory and Methodology: Towards an Integration of Micro- and Macro-Sociologies*; Knorr-Cetina, K., Cicourel, A.V., Eds.; Routledge & Kegan Paul: Boston, MA, USA, 1981; pp. 277–303.
81. Callon, M. The sociology of an actor-network. In *Mapping the Dynamics of Science and Technology*; Callon, M., Law, J., Rip, A., Eds.; Macmillan: London, UK, 1986; pp. 19–34.
82. Eckstein, B. Making space: Stories in the practice of planning. In *Story and Sustainability*; Eckstein, B., Throgmorton, J., Eds.; MIT Press: Cambridge, MA, USA, 2003; pp. 13–31.
83. Sandercock, L. The power of story in planning. In *Cosmopolis II: Mongrel Cities of the 21st Century*; Sandercock, L., Ed.; Continuum: New York, NY, USA, 2003; pp. 181–203.
84. Bryman, A. *Social Research Methods*, 5th ed.; Oxford University Press: Oxford, UK, 2016.

85. Downing, J.; Mohammadi, A.; Sreberny-Mohammadi, A. Preface. In *Questioning the Media: A Critical Introduction*; Downing, J., Mohammadi, A., Sreberny-Mohammadi, A., Eds.; Sage: Thousand Oaks, CA, USA, 1995; pp. xv–xxix.
86. Krainer, L.; Lerchster, R. (Eds.) *Interventionsforschung Band 1*; Springer: Wiesbaden, Germany, 2012.
87. Brodschöll, P.C. Negotiating Sustainability in the Media: Critical Perspectives on the Popularisation of Environmental Concerns. Ph.D. Thesis, Curtin University, Perth, Australia, 2003.
88. McAdams, D. *The Stories We Live by: Personal Myths and the Making of Self*; Guilford Press: New York, NY, USA, 1993.
89. Ricoeur, P. Explanation and Understanding. In *From Text to Action, Trans*; Kathleen, B., John, T., Eds.; Northwestern University Press: Evanston, IL, USA, 1991.
90. Braun, V.; Clarke, V. Using Thematic Analysis in Psychology. *Qual. Res. Psychol.* **2006**, *3*, 77–101. [[CrossRef](#)]
91. Charmaz, K. *Constructing Grounded Theory*, 2nd ed.; Sage: London, UK, 2014.
92. Glaser, B.G.; Strauss, A.L. *The Discovery of Grounded Theory: Strategies for Qualitative Research*; Aldine: Chicago, IL, USA, 1967.
93. Smith, J.A.; Flower, P.; Larkin, M. Interpretative Phenomenological Analysis: Theory, Method and Research. *Qual. Res. Psychol.* **2009**, *6*, 346–347. [[CrossRef](#)]
94. Clandinin, D.J.; Connelly, M.F. *Narrative Inquiry. Experience and Story in Qualitative Research*; Jossey-Bass: San Francisco, CA, USA, 2000.
95. Mertova, P.; Webster, L. *Using Narrative Inquiry as a Research Method: An Introduction to Using Critical Event Narrative Analysis in Research on Learning and Teaching*; Taylor & Francis-Library: New York, NY, USA, 2007.
96. Singer, J. Narrative Identity and Meaning Making Across the Adult Lifespan: An Introduction. *J. Personal.* **2004**, *72*, 437–459. [[CrossRef](#)] [[PubMed](#)]
97. Harper, D. Talking about pictures: A case for photo elicitation. *Vis. Stud.* **2002**, *17*, 13–26. [[CrossRef](#)]
98. Collier, J.; Collier, M. *Visual Anthropology: Photography as a Research Method*; UNM Press: Albuquerque, NM, USA, 1986.
99. Crilly, N.; Blackwell, A.; Clarkson, P. Graphic elicitation: Using research diagrams as interview stimuli. *Qual. Res.* **2006**, *6*, 341–366. [[CrossRef](#)]
100. McAdams, D.P.; Bowman, P.J. Narrating life's turning points: Redemption and contamination. In *Turns in the Road: Narrative Studies of Lives in Transition*; McAdams, D.P., Josselson, R., Lieblich, A., Eds.; American Psychological Association: Washington, DC, USA, 2001; pp. 3–34.
101. Franzosi, R. Narrative Analysis—Or Why (and How) Sociologists Should be Interested in Narrative. *Annu. Rev. Sociol.* **1998**, *24*, 517–554. [[CrossRef](#)]
102. Tomashevsky, B. *Thematics. Russian Formalist Criticism: Four Essays*; Lemon, L., Reis, M., Eds.; University of Nebraska Press: Lincoln, NE, USA, 1965.
103. Emde, K.; Klimmt, C.; Schluetz, D.M. Does storytelling help adolescents to process the news? A comparison of narrative news and the inverted pyramid. *Journal. Stud.* **2016**, *17*, 608–627. [[CrossRef](#)]
104. Hinyard, L.J.; Kreuter, M.W. Using narrative communication as a tool for health behaviour change: A conceptual, theoretical, and empirical overview. *Health Educ. Behav. Off. Publ. Soc. Public Health Educ.* **2007**, *34*, 777–792. [[CrossRef](#)]
105. Ezzy, D. Theorizing Narrative Identity: Symbolic Interactionism and Hermeneutics. *Sociol. Q.* **1998**, *39*, 239–252. [[CrossRef](#)]
106. Mayring, P. *Qualitative Inhaltsanalyse - Grundlagen und Techniken*, 12th ed.; Beltz: Weinheim, Germany, 2014.
107. Mayring, P.; Fenzl, T. QCAmap – An Open Access Software for Qualitative Content Analysis. 2013. Available online: www.QCAmap.org (accessed on 10 August 2019).
108. Stern, P. Deliberative methods for understanding environmental systems. *BioScience* **2005**, *55*, 976–982. [[CrossRef](#)]
109. Atkinson, R. *The Life Story Interview*; Sage Publications: Thousand Oaks, CA, USA, 1998.

