

The influence of the weather on tourist experiences: analyzing travel blog narratives



Minor Thesis Leisure, Tourism and Environment SAL-80424

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October 2011

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Acknowledgements

The last 5 months I have dedicated to writing this thesis. During this period all steps were taken in the process of an academic research. Having finished the report, it now seems as if time has passed by so quickly. This thesis has studied how the weather is perceived by tourists, how it influences their experiences and how tourists evaluate the weather circumstances they are confronted with during their holiday. I have studied the content of online travel blogs and analyzed weather and impact themes that emerged from the narratives on these blogs. Using online blogs as data source is a relatively novel practice. I have found it to be a very useful way of obtaining rich data. The stories give the opportunity to shortly involve yourself in the adventures of the writers, which in the case of this topic -weather, travelling and tourism- is a great and interesting experience.

Having written this thesis, at the same time I conclude my career as Master student. One of the reasons of choosing this topic and the methodology I used was that I wanted to become familiarized with 'qualitative research'. I have done many survey studies and statistical analyses, but hardly found myself doing in depth, qualitative analyses. Writing this thesis gave me the opportunity to do something I had never done before. I really liked it. I can say that by doing this research I have expanded my social scientific skills. Also, having both quantitative and qualitative research skills enables me to put both approaches into perspective and choose between them when needed, or maybe even use both in future research.

Finally, my supervisor Karin Peters has provided me with a wealth of advice, both theoretical and practical. This has been of great value for my research. Thank you for the support. It has been an inspiring experience.

Jelmer

Excecutive summary

Introduction

As one of its main resources, weather is an integrated part of tourism (Becken, 2010). The type of weather people experience during their holiday is generally assumed to affect how tourist attractions and holidays as a whole are experienced. Nevertheless, the weather is probably one of the few relevant factors the tourism industry has no control over. Both tourist organizations and tourists themselves have to deal with the weather as it comes. Yet, few empirical evidence exists about how the weather interacts with individual tourist perceptions, their activities and how this is reflected in tourist experiences, a concept that is among the core topics of the tourism industry. So, an important knowledge gap remains when it comes to a structural approach towards impacts of the weather as experienced on individual tourists. Tourist experiences, stored in long-term memory, form stories, narratives in the minds of people, that are reproduced by, for example, writing on travel blogs. This study intended to take on an approach that focuses on how people generate stories from their holiday experiences and how the weather plays a role in these stories. Studying the role of the weather in the tourist experience via travel blog analyses can shed new light on how the weather influences individual tourists via an unobtrusive way of investigation. This thesis intended to answer the following research questions:

1. Which types of weather are mentioned in online travel blog postings?
2. How often are these types of weather mentioned?
3. How does the weather impact on tourists and their holiday experience?
4. How are the weather and the weather impacts evaluated by tourists?

Methodology

The stepwise approach called 'the spiral of analysis' as proposed by Boeije (2009) was used. The spiral of analysis is based on concepts originating from Grounded Theory of Glaser and Strauss (1968) and was employed for a number of purposes. First, to categorize weather types and count the number of occurrences, and second to categorize valuations of the weather and to discover emerging themes of how the weather impacts the tourists. Since there was no a priori categorization objective, the narratives themselves formed the basis for emerging categories, following the principles of Grounded Theory (Boeije, 2009; Glaser et al., 1968; Raduescu & Vessey, 2011).

Postings on the Dutch weblog www.waarbenijj.nu were used as data source. The overall aim was to randomly select 200 unique postings with weather related text. Randomized selection was employed by using a tool for selecting random samples on

www.randomizer.org. The website *www.waarbenjij.nu* is divided in eight parts, each containing blogs about a certain part of the world. In total 245 countries are represented. These are: 1. Africa (1-53); 2. Asia (54-90); 3. Central-America (91-120); 4. Europe (121-173); 5. Middle East (174-189); 6. Northern-America (190-195); 7. Australia and Oceania (196-229); 8. South-America (230-245).

Results and conclusions

The weather has a significant and complex impact on tourists and their holiday experiences. Also, tourists write extensively about the weather on online travel blogs. *Research question one* and *two* were aimed at identifying weather types that were discussed on weather blogs. A wide range of weather aspects was mentioned in the narratives. A total of sixteen weather types was found. Accounts of the weather often implied a valuation, a notion of subjectivity and are described as an experiential phenomenon. Tourists experience a combination of weather aspects and evaluate them as favourable or unfavourable in relation to their plans and/or expectations. The weather themes that emerged in this study thus add to the current understanding of how tourists perceive the weather as a phenomenon and think and write about it.

While the weather themes that were written about on the travel blogs varied widely, the ways the weather has an impact on tourists and their experiences diverged even more. *Research question three* aimed at identifying how the weather impacts on tourists and their activities. It was found that the sixteen weather themes impact on tourists in 30 different ways. These 30 means of how the weather impacts were meaningfully categorized under eight impact themes (Table 1). The emerging themes clearly show the relation between the weather on one hand and the impact of the weather on the tourists on the other. It can be concluded that the weather as a phenomenon does not exist in isolation. It's impact and significance get their true meaning by the experience of people and their perceptions. *Research question four* was concerned with how tourists evaluate the weather and its impact on them. These evaluations varied considerably in direction -positive or negative-, per weather type and per impact. Also, sometimes the weather was used as a narrative tool. In sum, these results provide a new, more detailed basis for the conceptual model of tourism climatology as presented by de Freitas (2003).

The results of this study provide evidence for the usability of weblogs for studying the weather in a more phenomenological way and therefore complements literature with a more quantitative approach (Andrade, Alcoforado, & Oliveira, 2010; Becken & Wilson, 2010; de Freitas, 1990; Denstadli, Jacobsen, & Lohmann, 2011; Meyer & Dewar, 1999; Morabito et al., 2005; Scott, de Freitas, & Matzarakis, 2009; Scott & Lemieux, 2010). The wide variety of

weather types and ways the weather impacts on tourists experiences indeed does give more insight in the complex relation between climate, weather and tourism. Additionally, this study adds to the growing body of literature that successfully applies travel blogs for studying tourist experiences. Online (travel) blogs appeared, as shown in previous research (e.g., Volo, 2010), to be a wealthy data source for several types of qualitative research.

Table 1 Emerging weather and impacts themes (number of times found)

Wx themes	Impact on experience	Evaluation
Rain/hail (82)	1. <i>Behaviour/adaptation</i>	5. <i>Emotions/moods</i>
High temperature/heat (82)	Obstructing activity (50)	Disappointment/Sad (14)
Wind (55)	Adapting to situation (48)	Lucky (11)
Sunshine (45)	Protection/Safety (28)	Impressed (11)
Low temperature/cold (34)	Enabling activity (26)	Scared/Worried (6)
Variability (29)		Happy (5)
Favourable (19)	2. <i>Aesthetics/Environment</i>	Contemplation (1)
Thunder/lightning (17)	Atmosphere (26)	
Humidity (16)	Visibility (22)	6. <i>Thermal</i>
Unfavourable (13)	Beauty (18)	Cold (31)
Clouds (13)	Visual/Scenery (14)	Warm (30)
Mist (7)	Flooding (8)	Cooling down (5)
Snow (6)		
Clear/Blue sky (4)	3. <i>Satisfaction</i>	7. <i>Changes/Variation</i>
Rainbow (2)	Comfort +/- (40)	Contrast/Comparison (17)
Drought (1)	Enjoyment +/- (38)	Changing weather (10)
	4. <i>Physical</i>	8. <i>Neutral (9)</i>
	Exhaustion (13)	Lack of impact (9)
	Sweating (12)	
	Wet (9)	
	Sunburn (7)	
	Pain/Damage/Hurt (6)	
	Smell (2)	

Marketing activities can use these results to promote tourist destinations among specific target groups and for specific activities. Given the increasing pressure on tourism organizations to provide safety and security information, improved weather impact knowledge can be useful as basis for tailor made weather information and related safety policy. Also, the findings of this study can be used for future research on tourist behaviour and how specific weather types and impacts influence travel decisions. Knowledge about how tourist perceive and evaluate the weather, its features and its impacts are important for assessing satisfaction of the holiday in total, but more importantly on the level of specific activities and experiences during the holiday. Future studies can and hopefully do take advantage of the weather and impact themes that were found here by incorporate and further developing them.

1. Introduction

As one of its main resources, weather is an integrated part of tourism (Becken, 2010). The type of weather people experience during their holiday is generally assumed to affect how tourist attractions and holidays as a whole are experienced. Climate and weather highly impact on a destination's attractiveness (Andrade, Alcoforado & Oliveira, 2007, in: Matzarakis, de Freitas, & Scott, 2007). Climatic circumstances are even seen as one of the main reasons why people travel to holiday destinations, and climate is often used to sell a destination (Becken, 2010). Limb and Spelmann (2001) concluded that weather is embedded in the holiday experience, but its influence on holiday decisions and holiday satisfaction varies among people and circumstances and is mediated by expectations about and activities during the holiday. According to Becken (2010), the weather has relatively little impact on holiday satisfaction, but does affect travel itineraries and activities undertaken, at least in New Zealand. This though might be different for other destinations around the world, with different attractions and weather patterns. Yet, while the linkages between weather and tourism are clear, how these linkages are present in the individual experience of tourists remains a largely unanswered question and is more assumed than empirically tested.

Nevertheless, the weather is probably one of the few relevant factors the tourism industry has no control over. Both tourist organizations and tourists themselves have to deal with the weather as it comes. The weather can add to the 'authenticity' or 'uniqueness' of the tourist experience. For example, mist in the mountains highly limits possible vistas that were anticipated for, but an opening in the clouds granting a peek into a valley might be experienced as even more impressive than when seen on a bright sunny day. More generally, climate characteristics for a large part define what type of tourism exists at a certain destination. Being rather variable at many locations, it is inevitable that the weather sometimes is different than expected or wished for. Given that the weather is one of the main motives to travel to a certain destination, what the weather actually is like during the holiday should have considerable impact on how tourists experience their holiday. It is thus surprising that the linkage between the weather and holiday experiences of individual tourists has not been studied more extensively.

Being a subjective, psychological construct (Larsen, 2007), based on interactions between product offerings, the environment (Volo, 2010), expectations and motives (Larsen, 2007), the tourist experience itself is a thoroughly studied topic and a key research issue (Uriely, 2005). Tourist experiences have been approached in many different ways and conceptualizations changed and developed over time (Uriely, 2005). The memories and stories tourists have about their holiday are based on their actual, albeit subjective, experiences (Larsen, 2007). Tourist experiences tend to be remembered by tourists

themselves in a narrative form (Pudliner, 2007). Also, tourist experiences are reproduced as narratives and they include the stories that are told by tourists to others, most importantly friends and family (Zehrer, Crotts, & Magnini, 2011). These narratives in the last decade or so have become increasingly digitalized and travel blogs are nowadays a common way to inform others about his or her holiday experiences almost instantly (Volo, 2010). Volo (ibid.) states that 'travel blogs have become very popular in the cyberspace, becoming an interesting virtual arena in which tourists share experiences, moods and feelings' (p.298). Thus, in the increasingly connected and digitalized society, new opportunities have emerged to study personal experiences of a holiday, such as narratives people write on travel blogs.

Given that the weather has such a profound impact on tourists and their experiences, it should also be present in the narratives of tourists and the stories they tell to their loved ones back home. Although a small foundation of research has been formed about the role of the weather in tourist experiences and tourist holiday satisfaction (for example: Becken, 2010; Becken & Wilson, 2010; Morabito et al., 2005), to the knowledge of the author, how this is reflected in holiday narratives has not been studied yet. This thesis investigates how people use the weather to describe their experiences during their holidays. Is it used as a background setting, or is it a major topic in the story? How does the weather affect tourist experiences? Studying the role of the weather in the tourist experience via travel blog analyses can shed new light on how the weather influences individual tourists via an unobtrusive way of investigation. Therefore, this thesis intends to answer the following research questions:

1. Which types of weather are mentioned in online travel blog postings?
2. How often are these types of weather mentioned?
3. How does the weather impact on tourists and their holiday experience?
4. How are the weather and the weather impacts evaluated by tourists?

The following chapter gives background theory about the influence of climate and weather on individual tourists. Also, it elaborates on the tourist experience as a scientific concept and provides insight in the phenomenon of web logs and travel blogs in particular. Chapter 3 builds on the theoretical background presented in the second chapter and explains the methodology used in this research, while Chapter 4 contains the results of the analysis. Finally, Chapter 5 draws conclusions and will discuss the limitations and implications of the findings.

2. Background and theory

2.1 The influence of climate and weather on tourism

The tourism industry is depending on the quality of weather, which pertains to a qualitative aspect (e.g., *how high* is the temperature), but also to a temporal aspect (e.g., *when* does the high temperature occur). Both are rather variable, which can have both positive and negative impacts on tourism. For example, cold and rainy weather during the summer holidays influences camping ground occupancies in a negative way, while high temperatures in early spring can fill up the terraces and boost revenue of cafés. On a more individual level, aesthetic aspects of climate such as sunshine influence tourist experiences of a holiday destination (Becken & Hay, 2007), just like physical aspects like wind, rain and thermal aspects like temperature do. Climatic circumstances are even seen as one of the main reasons why people travel to holiday destinations and climate is often used to sell a destination (Becken, 2010). In sum, climate and weather can be seen as an integrated part of tourism affecting the field of tourism on both individual and organizational levels.

While climate is an abstract concept that refers to long term, average trends in the weather patterns, what people sense are concrete, highly variable weather features. Climate and weather are very much related but they should be approached and used as distinct matters: 'climate is defined as the prevailing condition observed as a long term average on a location. In contrast, weather is the manifestation of climate at a specific point in time and place' (Becken, 2010, p.2). In other words, while weather pertains to extremes and variations, climate data average them out. Changes in climate influence the weather people experience on the long term. Yet, on a shorter term, it is the variability in weather patterns that directly influences people's lives, including their holidays. Yet, people and organizations (not the least tourism organizations), tend to mix and confuse climate and weather. For example, tourists are provided with climate information by tourism agencies, websites and guide books, which is presented to them or interpreted by them as weather information (Becken, 2010). Also, by some sources, climate and weather information tends to be skewed in a way as if the weather has no downside and has no potentials risk for tourists. This is probably very logical from a marketing perspective; there is a thin line between warning tourists and scaring them. But since tourists at least partly base their destination choice decisions (both when and where) on these climate data (Hamilton & Lau, 2004), this may lead to misinterpretations, false expectations about the holiday weather and possible disappointments about a holiday as a whole. Figure 1.1 displays how tourists use climate and weather data in their pre-travel and at travel stages. While climate data are generally used to choose a destination, actual weather data such as weather forecasts are only used

from some weeks before and during the trip. This pattern of use is logical, because of the nature of the data. Weather forecasts and actual weather data are per definition only available for the very near future; climate data on the other hand, often being monthly averages of a 30-year period, are always available.

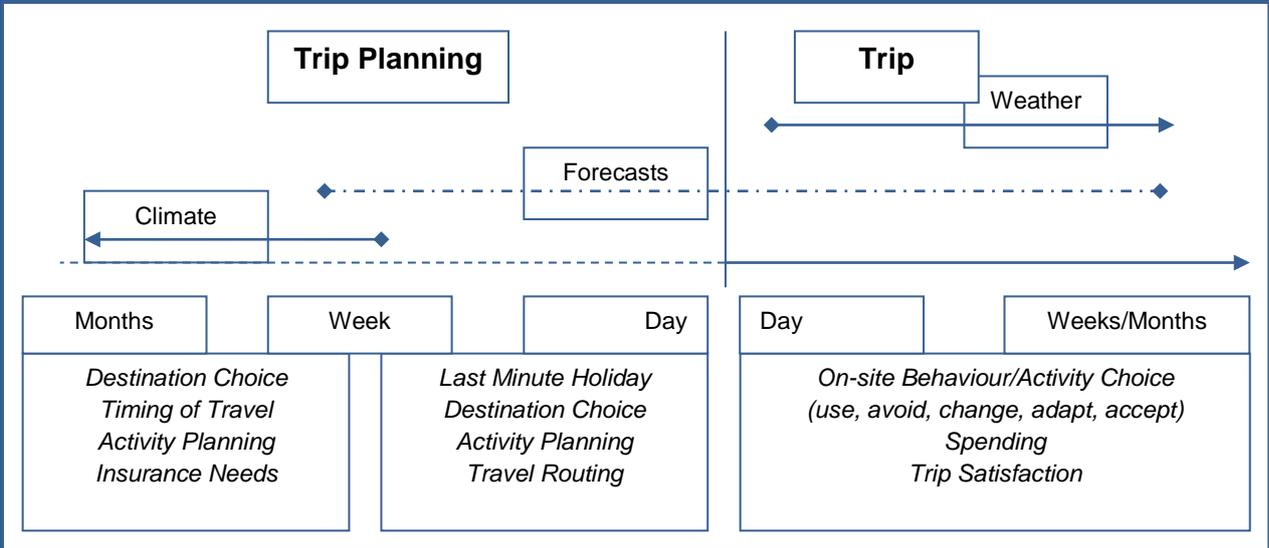


Figure 2.1 Weather-climate Information for Leisure Tourist Decision-making (Scott et al., 2009, adapted from: Scott, 2008)

Becken (2009) points out a number of factors that are important for the degree of sensitivity of the tourist industry to weather variabilities. They include tourists’ responsiveness to certain climatic conditions, importance of weather and weather-related natural hazards for tourism businesses and their successful operation of specific activities, and how infrastructure or natural resources relevant to tourist operations might be temporarily or permanently affected by weather events. In line with this, de Freitas (2003) states that for tourism, climate and weather are an essential resource. Both climate and weather define the potentials and limitations of a destination and have impact on the match with individual tourist demands. Specifically focusing on the individual impact, considerable research has been done that has studied isolated weather aspects, of which the most important one is thermal comfort (Andrade et al., 2010; Knez, Thorsson, Eliasson, & Lindberg, 2009). These studies pertain to a combined physiological experience of temperature, humidity, wind and radiation, resulting in Tourism Climate Indexes (TCI’s). These numerical studies are criticized however, since they ‘often have been too narrow or too vague in their approaches in relation to the commonly wide scope of leisure traveler activities and interests’ (Denstadli et al., 2011, p.937). Thermal comfort of tourists is sometimes also related to predictions of climate change

and expected changes in tourist flows (Hein, Metzger, & Moreno, 2009; Morabito et al., 2005).

Despite the work done in the past on the impact and perception of weather on and by tourists, the work remains somewhat scattered. De Freitas (2003) provides a conceptual framework (Figure, 2.2; Table 2.1) that could be used as a basis to study impact of the

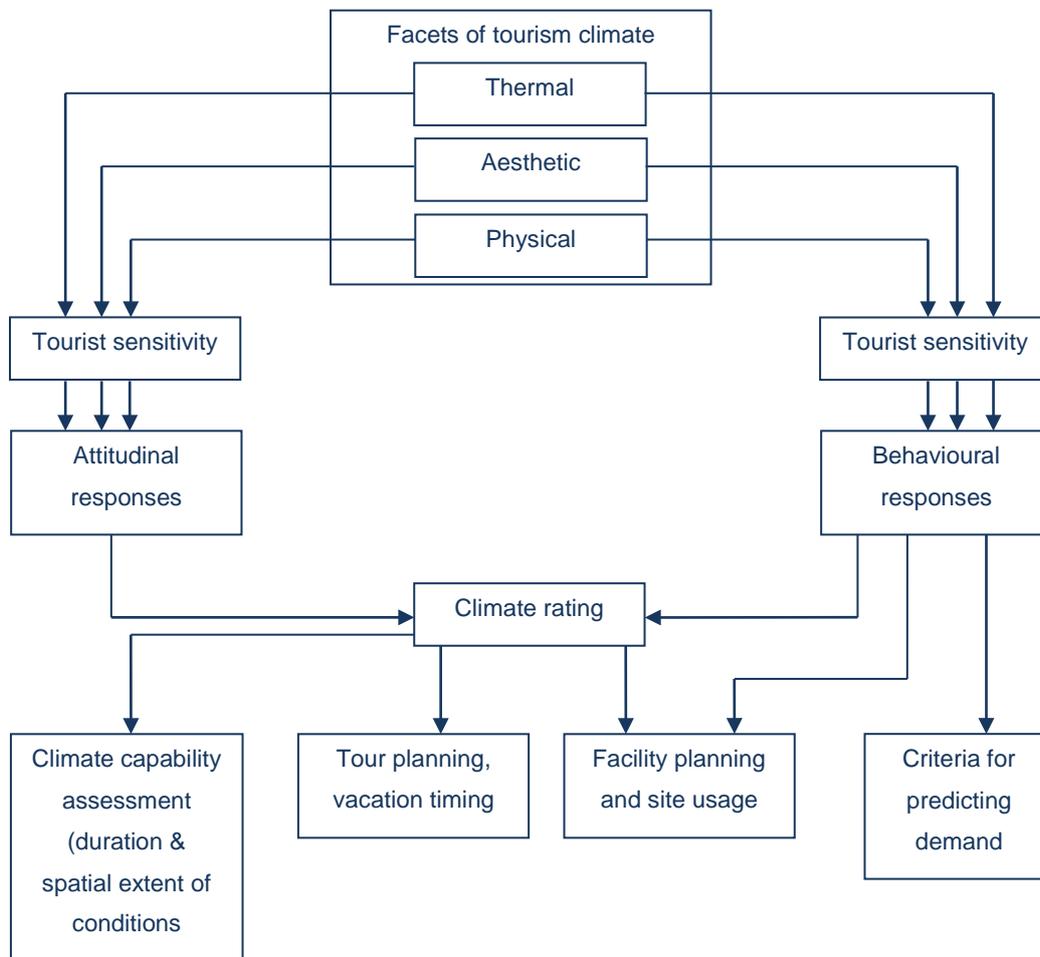


Figure 2.2 Conceptual framework to study tourism climate (de Freitas, 2003)

weather on tourists. As he suggests, not much empirical evidence exists on the relations between climate, weather and tourism that can be used to employ further research on; ‘much of the research specifically on climate reported in the literature has been superficial in that relationships between climate and tourism are assumed rather than observed and seldom objectively tested’ (p. 53). However, while the provided framework is a useful conceptual tool, the categorization in three aspects of climate and weather (thermal, physical, aesthetic) impacts has a rather thin empirical foundation and is based on beach tourism only (de Freitas, 1990). Obviously, the weather has impact on many other tourist activities. Thus, there is a need for more empirical evidence for this model, that provides a more complete picture of how the weather impacts on tourists, their activities and their experiences. On a

more conceptual note, it is argued here that the three facets of tourism climate should not pertain to the type of climate, but to the type of experience of the tourists. Thus, for example, it is not the type of weather that is thermal. It is a certain type of weather that results in a thermal experience. To understand the impact of the weather on tourists more fully, research should go beyond climate indices and the three facets of tourism climate and find evidence that links perceived weather with how the tourist experiences the weather as a psychological concept.

Table 2.1 Facets of tourism climate, their significance and impact (adapted from de Freitas, 2003)

Facet of climate	Impact on tourists
<i>Aesthetic</i>	
Sunshine/cloudiness	Enjoyment, attractiveness of site
Visibility	Enjoyment, attractiveness of site
Day length	Hours of daylight available
<i>Physical</i>	
Wind	Blown belongings, sand, dust etc.
Rain	Wetting, reduced visibility
Snow	Participation in activities
Ice	Personal injury, damage to property
Air quality	Health, physical well-being, allergies
Ultraviolet radiation	Health, suntan, sunburn
<i>Thermal</i>	
Integrated effects of air temperature, wind, solar radiation, humidity, long-wave radiation, metabolic rate	Environmental stress, heat stress Physiological strain, Hypothermia Potential for therapeutic recuperation

Despite the research that has been employed to date, to the writer's knowledge no research has been done that has focused on how people, let alone tourists, integrate and relate the weather to their actual holiday experiences. In order to fill this gap, this thesis therefore intends to take on an approach that focuses on how people generate stories from their holiday experiences and how the weather plays a role in these stories. The next section revolves around the formation of these tourist experiences.

2.2 Tourist experiences

The section above pointed out the profound integration of weather and tourism. But how does the individual tourist perceive the weather that is occurring during his holiday? In other words, how does the weather influence the tourist experience? Limited evidence exists of the link between experienced weather and holiday satisfaction (see above) and given that

motives to travel often include experiencing a certain type of weather, it is not a shot in the dark to assume that actual experiences of the weather have an impact on tourist experiences.

To this point of the thesis however, it has not become clear what is meant with the term 'tourist experience'. Tourist experiences have been an important topic of study since the 1960's (Uriely, 2005). Many authors have aimed to explicate the construct of tourist experience and conceptualizations vary somewhat. Tourist experiences are generally seen as being built up and affected by a combination of several aspects and, likewise, many attempts have been made to categorize these aspects and classify tourist experiences. It has been defined, for example, by Page et al. (in Volo, 2010, p) as 'a complex combination of factors that shape the tourist's feeling and attitude towards his or her visit'. Volo (2010) concludes that, based on a literature review on tourist experiences, the focus of scholars studying tourist experiences is either on the intrapersonal aspects, such as motivations, meanings and subjective experiences, or on the tourist as consumer, focusing on the aspects related to the products and activities that elicit the experiences, such as satisfaction, familiarity, prior knowledge and external stimuli. In another extensive literature study, Ritchie and Hudson (2009), discerned six streams of research on tourist experiences; 1. A 'fundamental' stream, aiming to define the essence of tourist experiences, using theoretical frameworks; 2. A stream focusing on understanding the tourist's experience-seeking behaviour; 3. Research about specific methodologies used in tourism experience research; 4. Studies exploring and understanding the nature of specific kinds of tourism/attraction experiences; 5. Research on managerial concerns related to designing and developing tourism supply systems; 6. Studies to distinguish among the levels/types of tourist experience.

Uriely (2005), in his elaboration on conceptual developments in tourist experience research, identifies a shift from modernist to postmodernist approaches in tourist experience research. This shift in attention occurred in the late 1970's from 'the objects provided by the industry to the role tourist subjectivity in the construction of experiences' (Uriely, 2005, p. 206). Tourist experiences nowadays are seen as subjective constructs, for which personal meaning and motivations are important factors. The integration of postmodernist approaches, characterized by 'deconstruction' (Uriely, 2005), has taken several forms. For example, Cohen (1979), emphasized the tourist experience as being a result of 'differentiation', perceiving a difference from the ordinary life, under influence of individually varying needs for pleasure and meaning. This formation of typologies of tourist experiences exemplifies the increasing attention for plurality and diversity (Uriely, 2005). In a reaction to this, some authors argue that increasingly a process of 'de-differentiation' occurs in tourism (e.g., Lash & Urry, 2004, in: Uriely, 2005); what used to be special, increasingly becomes

part of the normal lives of people. This is seen as one of the main challenges in contemporary tourism. The focus on subjectivity, authenticity and diversity in tourist experiences has taken many forms, exemplifying the complexity of tourism as a phenomenon that is embedded in modern societies.

2.2.1 Intrapersonal processes

According to Larsen, when studying tourist experiences, focus should be on the intrapersonal processes that construct the tourist experience (Larsen, 2007). Volo (2010) distinguishes two types of tourist experience: the 'experience as offerings', signifying the interaction with tourist products, and 'experience as essence', emphasizing the role of the intrapersonal processes as put forward by Larsen (2007). The latter can be termed a 'social science approach' to tourist experiences and it claims that the formation of tourist experiences happens in the minds of people. These formations are based on three factors: expectations, events and memories (Larsen, 2007). Moreover, Larsen claims that tourist experiences are functions of memory processes and defines a tourist experience as a 'past personal travel-related event strong enough to have entered long-term memory' (p. 15). Likewise, Kim (2010) states that people remember extraordinary events -such as tourist experiences- better and recall them more vividly than events that are perceived as ordinary. The events that are most likely to enter the long-term memory are so called 'peak and end' events (Larsen, 2007). The peak and end experiences of tourists are the significant experiences from which tourists derive meaning. Peak experiences pertain to the moments during a holiday with the highest level of affect, while end experiences are simply the final experiences during a trip. According to a study of Wirtz, Kruger, Scollon and Diener (2003), memories of tourist experiences are the most important predictor of the desire to experience the same again. These memories are so called flashbulb memories and they pertain to out-of-the-ordinary events and the contexts and emotions that are related to these events. People are able to recall significant events vividly, although these memories may not be factually correct. Yet, in the case of tourist experiences, which are per definition entirely subjective, it is all about this perceived reality. Thus, if the weather has a significant impact on tourist experiences, it is likely to become part of the tourist experiences and how they are remembered by people. Moreover, the weather as perceived at a certain moment during a holiday might result in this moment becoming a peak experience. For example, experiencing torrential rain, a thunderstorm or heavy fog can be very impressive and thus become an important aspect of an experience.

2.2.2 Narratives and stories of tourists

Built up from memorable events, situations, meetings and adventures, tourist experiences become a story in the minds of people. The memory of tourist experiences is autobiographical (Kim, 2010) and takes the form of a narrative. Tourist experiences as memories are thus not only consumed during the holiday, but also after the trip. For example, by making sense of what was experienced, comparing it with expectations and relating it to one's identity (Elsrud, 2001). According to Elsrud (2001), the act of travelling is an indication of who the traveler is or what he wants to be. Moreover, the language used by travelers also reflects his perceived identity. In other words, tourists are constantly working on their identity and an important part of making sense what tourist experiences mean for them is the way they form stories about their experiences. The storytelling gives the tourist a chance to make sense of the events he experienced (Bosangit, McCabe, & Hibbert, 2009). Also, tourists tend to share their experiences with friends and family. For example, since decades holiday pictures are a common way to show others where one has been and what has been experienced. And for centuries, travelers have taken notes in diaries to keep track of their experiences and thoughts. In that sense, tourist experiences literally become narratives, being remembered, reproduced and reinterpreted by the tourists themselves and their social environment.

Given that tourist experiences are shaped into narratives to serve the purposes mentioned above, how tourists write these stories down and which aspects of the experience are included in the stories gives an insight in the subjectivity of tourist experiences. Until about a decade ago, getting access to these type of narratives was difficult. Diaries are often personal and kept away from others. However, new methodological opportunities have emerged through the increased use of online travel weblogs by tourists to share their experiences. These online diaries are generally easily accessible and provide a way for unobtrusive analyses of tourist experiences. The narratives on travel blogs are reflections of memories of tourists about what they experienced. Moreover, the topics which are elaborated on must have a certain psychological relevance for the writer, that made him decide the subject of writing was interesting enough to write about. In other words, in order to be written about, a topic must be recollected and reproduced because it has certain value for the writer. Clawson and Knetsch, in line with Larsen's definition, (Clawson & Knetsch, 1966, in: Kim, 2010) already noted that experiences have value only when they are stored and remembered through the process of recollection. The narratives that are posted on travel blogs are reproduced memories, and must represent a value for the writer. Yet, narratives are not merely enumerations of psychologically relevant experiences. They have their own dynamics, that bring order in what is told and in which order. The reconstruction of experiences through travel blog writings form a story, often with a beginning, middle and end,

with background information to set the scene and introduce the main topics of the story, all together forming a representation of how the experience is recollected and how the writer wants the world to see his experience, in that way adding to the formation of the writer's social identity. The next section will go deeper into what travel blogs are, how they are used by tourists and what the opportunities and constraints are for research.

2.3 Weblogs

The use of websites to disseminate personal experiences has increased immensely within the last decade. The writing, reading and maintaining of weblogs in general has been termed the 'blogosphere' (Carson, 2008), and is increasingly recognized as having its own dynamic of information flows, enabling writers to express themselves and to influence and inform people from around the globe. The blogosphere is a type of User Generated Content (UGC) (Schmallegger & Carson, 2008) and is in that sense related to other types of social media such as Flickr, Facebook and Youtube, all websites where the general public can share information with almost no moderation or supervision of the website host. This development in the World Wide Web towards a more interactive way of using the internet is termed Web 2.0. From the first known blogs in 1999, the number of this type of 'consumer to consumer media' (Volo, 2010), has increased to over 100 million, although 'the exact number of blogs is impossible to state at any given point in time due to the highly dynamic and decentralized character of the blogosphere' (Schmidt, 2007, p.1409). Schmidt (2007) discerns, among others, political blogs, corporate blogs, expert blogs, journalism blogs, medical blogs, car blogs and travel blogs. Schmallegger and Carson (2008) differentiate between consumer-to-consumer blogs, business-to-consumer blogs, business-to-business blogs and government-to-consumer blogs, exemplifying the wide range of possibilities these type of websites are assumed to have. Subjects of weblogs contain everything 'which generates interest among a reasonably sized group of people' (Jones & Alony, 2008, p. 4). All these blogs have different purposes and accordingly vary in terms of interaction between users, lay-out and content.

The body of research that employs weblogs as data source is only just emerging in the last decade or so and researchers across several disciplines are increasingly discovering its promising applicability for a wide number of purposes. Jones and Alony (2008) provide an interesting review of blogs as phenomenon and its potential for scientific research. They define weblogs as 'personal journals which are published online, and are frequently updated with links to similar and related topics, often from other bloggers' (Jones & Alony, 2008, p.3). But why do people set up, post on and read weblogs? According to Jones and Alony (2008), seven needs are distinguished that can be fulfilled by getting involved in blogging as activity: (1) need for self-expression, (2) need for recognition, (3) need for social contact, (4) need for

introspection, (5) academic needs for knowledge and interests, (6) need for documentation, and (7) need for artistic activity. These needs pertain to the myriad of interactions between writers and readers of weblogs that exist in the blogosphere. However, while it is important to consider the motivations of maintaining and posting on weblogs, this thesis is interested in *what* is written on weblogs. Now, let's narrow down to the specific type of weblog that is of interest here, the travel blog.

2.4 Travel blogs

Travel blogs are a specific type of weblog containing tourism and travel related content. Two types of travel blogs, each with their own purpose, can be distinguished. On one hand there are weblogs with an emphasis on tourist product reviews. On the other hand, weblogs exist that are used as digital travel diaries, being updated throughout the trip, functioning as a source of information for friends and relatives (but also the rest of the world, given its free accessibility) regarding the whereabouts of its writers. The interest of this thesis is in the latter type and on how stories that are employed by individual travelers contain references to the weather as experienced during their trip. Bosangit (2009) states that travel blogs can be considered expressions of travel consumption. Writing on travel blogs is a way to express oneself and share positive and negative travel experiences (Schmallegger & Carson, 2008). Likewise, Pan, MacLaurin and Crotts (2007) see travel blogs as a manifestation of individual, 'uncensored and rich expressions of a visitor's travel experiences (p. 36). Travel blogs are a form of digital story telling (Pudliner, 2007), being 'rich narratives that contain details of experiences and have a great deal of potential to inform research' (Bosangit et al., 2009, p.62). Being a wealthy source of information, travel blogs have been recognized as such by an increasing number of scholars. For example, Filep (2008) states that 'qualitative study of travel blogs [...] is useful in uncovering new layers of satisfaction that could not have been discovered through dominant approaches' (p. 4).

Analysis of online travel blogs is becoming increasingly popular. In 2008, the Journal for Vacation Marketing dedicated a whole issue to travel blog research (Bosangit et al., 2009). Two lines of research can be distinguished that use weblog content within the context of tourism (with some overlap between them). Both scholars are obviously interested in the content of travel blogs, including the stories themselves and the comments of readers of the stories. However, the first line of research is more interested in how (future) tourists are influenced via weblogs regarding their destination choice and other tourist product attitudes, hence focusing on blogs as a tourism marketing tool and on the dynamics that exist between the writers and readers of weblogs (Carson, 2008; Pan et al., 2007; Volo, 2010). In that sense, the emergence of weblogs has been recognized as highly influencing how destination

images are formed. For example, information posted on weblogs by individuals can be perceived by its readers as more reliable than information on commercial websites, such as hotel websites or websites from local tourist agencies (REF). Individual consumers thus might be perceived to be more credible and as a result people base their attitudes and future behaviour for a large part on what they find on websites such as *tripadvisor.com* or, in The Netherlands, *zoover.nl*. These type of weblogs are characterized by having a main goal of reviewing tourist products such as hotels, restaurants and tourist destinations as a whole. According to Banyai and Glover (2011), these websites are not travel blogs but should be termed 'travel review sites'. These websites are a platform for a new form of Word-Of-Mouth; online WOM, also called Word-Of-Mouse. Online WOM is expected to become increasingly preferred as a travel information source (Crotts, 1999, in: Law & Cheung, 2010).

The other line of research is more interested in the formation and nature of the travel blog content, studying this content through for example narrative analysis or content analysis (Bosangit et al., 2009). The type of blogs that these researchers are interested in have a more personal nature, since they contain not only opinions, but are built up from stories of people's activities, social meetings and experiences, without the main goal of valuation of a specific location, attraction or event. Attention of such research is aimed at how people tell their travel stories, how the writers and readers interact via comments on blog postings and how the stories reflect the experiences of people. Examples of these type of weblogs are *travelpod.com* and, in The Netherlands, *waarbenijj.nu*. Contrary to the first line of research, here less attention is for the extrapersonal consequences of the blogging activity itself.

Weblogs are used as a source to get deeper insight in how people make sense of their world, how the environment influences their experiences and how they reproduce these experiences via weblogs. Some have used travel blog content as a data source for semantic network analysis (Pan et al., 2007), while other used a narrative approach (Bosangit et al., 2009). The latter study emphasized the possibilities for travel blog research when approaching travel blogs as 'textual artifacts to gain insights into how tourists construct order and make meaning from their experiences as part of the process of identity management' (Bosangit et al., 2009, p. 63). They found that travel blog content often resembles the narrative structure as proposed by Labov and Waletzky (Labov & Waletzky, 1967, in: Bosangit et al., 2009), containing six components, that all complement each other: *abstract*, *orientation*, *complicating action*, *evaluation*, *resolution* and *coda*. This focus on the order of what is said is typical for narrative analysis. Likewise, some authors are interested in why tourists choose to talk about certain topics in their blog postings and how this relates to forming and expressing one's identity. As McCabe and Foster (2006) state, 'a person's identity can be communicated through narrative' (p. 195), and stories influence the construction of identity. Pudliner (2007) links a person's narratives and identity with tourism,

approaching tourism as being reflected in the use of language by these tourists. In sum, what is written on travel blogs can reveal much about its writers, how they perceive themselves as individuals, as part of a social network, as experiencing their environment and how they perceive this environment as factor that has an impact on their lives, holidays and activities.

Some criticism about the applicability of travel blogs for scientific research exists, however. For example, Carson (2008) states that the acclaimed 'depth of personal and situational analysis' (p. 118) was not found by analyzing travel blogs. However, this study was aimed at drawing conclusions from a marketing perspective. When studying blogs for the sake of the content itself, as in this thesis, these constraints are less relevant, especially because in Carson's study they were partly induced by the large time investment for finding relevant data in the blogs. Moreover, he acknowledges that with different methodologies, travel blogs can be a very valuable resource. On the other hand, Pan et al. (2007) conclude the following:

"Travel blogs qualitatively cover every aspect of a visitor's trip. From the overall experience of traveling, the anticipation, planning, packing, departure, driving, flying, and delays en route were all reflected in the travel blogs. Visitors' experiences involved kaleidoscopic perception and sense of the destination: from attractions, accommodations and dining, to access and overall impressions. Most of the descriptions were experiential and subjective in nature". (Pan et al., 2007, p.47)

Nevertheless, they also say that much remains to be discovered about the applicability of travel blogs for research. Especially when it comes to using it for studying individualistic self-expression on one hand or for an analysis of online social interaction on the other. Thus, travel blogs are worth taking into account as a promising data source. The only way forward is to actually employ research that uses travel blogs and critically analyze the performance of the data and the methodologies used by the researcher. This thesis intends to become part of this way forward.

To summarize, I have argued that climate and weather are an important, integrate aspect of tourism that influences tourism and tourist experiences. Yet, few empirical evidence exists about how the weather interacts with individual tourist perceptions, their activities and how this is reflected in tourist experiences, a concept that is among the core topics of the tourism industry. So, an important knowledge gap remains when it comes to a structural approach towards impacts of the weather as experienced on individual tourists. Tourist experiences, stored in long-term memory, form stories, narratives in the minds of people, that are reproduced by, for example, writing on travel blogs. The intention here thus is to analyze the content of these blogs in order to shed a systematic light on how the weather is represented in the written reproduction of tourist experiences as reported on travel blogs.

2.5 Weather linguistics

Being interested in linking tourist experiences with the weather through analyzing travel blog content, it is important to be aware of how the weather plays a role in general human linguistics. Weather phenomena are initially sensed and experienced by people and then, as described above, obtain a meaning and are stored in the memory. This processing of weather experiences for example occurs with the help of converting the experiences into 'experiential symbols of words for the purposes of description, comparison and communication' (Fischhoff, 2004, in: Stewart, 2007, p. 57). Thus, following a line of argumentation similar to the one behind the potential of studying tourist experiences through narratives, language used to describe the weather can give insight in people's experiences and meaning of the weather (Stewart, 2007). The limited insights about the role and representation of the weather in language comes from two studies in particular, that will be portrayed shortly in this section.

In many countries, cultures and communities, the weather plays an important role and this is reflected in how the weather is used as a topic of conversation. Harley (2003) studied what British people talk about when they talk about the weather. He argues that the weather is talked about so often because of it having certain characteristics, such as being unpredictable, variable, because of its environmental prominence and importance, and its impersonal nature. Everybody is affected by it and almost everyone has an opinion about the weather. And if not, it is easy to form an opinion if needed, since the weather is always present. Harley discerns a number of weather related topics that are prominently present in weather conversations (as measured on a weblog dedicated to the weather). First, weather extremes are popular. Also, current weather is often compared to previous weather, for example in order to make sense of the weather as being normal or extraordinary. Next, weather is used as an 'object in time', linking it with particular, memorized non-weather events and putting them in a contextual framework in which the event took place. Apparently, the weather plays an important role in this process. As Harley argues, the weather is an important metacognitive tool that is used to form the autobiographical memory. In other words, the weather 'can provide a framework for accessing and structuring memory' (Harley, 2003, p. 115). This finding is interesting in the context of this thesis, in the sense that out-of-the-ordinary events such as tourist experiences are thus likely to be contextualized by weather circumstances.

Stewart (2007) employs another interesting approach by studying weather related adjectives people use to describe the weather. He found evidence for a twelve-factor solution, forming a latent structure for 143 English language adjectives (Table 2.2). The adjectives pertain to several ways people are affected by or evaluate weather circumstances.

The categorization of Stewart provides a good starting point for an analysis of how several types of weather are used in travel narratives. In sum, both studies provide evidence that the weather is widely discussed among people. Moreover, the wealth of adjectives that are available to describe weather experiences, to give meaning to and communicate about these

Table 2.2 Climate adjective factors (Adapted from Stewart, 2007)

Climate adjective factors
1. Threatening, severe, violent
2. Drab, dismal, dark
3. Cold and wintry
4. Hot and summery
5. Tranquil and pleasant
6. Wet and stormy
7. Bright and clear
8. Blowing and blustery
9. Damp and moist
10. Cool and cloudy
11. Predictable and unchanging
12. Hazy and dusty

experiences is encouraging for studies like this thesis that wish to use verbal communication as source for studying weather experiences, for example in the context of tourism. The challenge however is not only to identify the words that are used or the types of weather that are described. In order to be able to base any usable conclusions on the impact of weather on tourists, an analysis should intent to find a link with the behaviour and activities that are affected by experienced weather situations. For the tourism as an industry, further knowledge about this is especially essential, since climate and weather form an important resource for many tourist destinations.

The next chapter expounds on the methodology of this study. Also, it considers ethical issues that arise when using weblogs as data source, and it expounds on the importance for the researcher to be aware of his role in terms of a potential source for bias within the process of data analysis in this type of qualitative research. In that sense, Chapter 3 places the study in a methodological framework that takes into account the interaction between data, methodology and researcher.

3. Methodology

In order to find an empirical basis for the assumed impact of the weather on tourists and their experiences, this thesis uses a non-obtrusive, qualitative approach, by studying online personal accounts of tourists about their holiday experiences as written down on travel blogs. Previously, tourist experiences often were studied by means of surveys or interviews, both having considerable limitations. For example, a survey only focuses on the part of a tourist experience that is of interest by the researcher that developed the survey. By filling out the survey, the respondent has to adapt his experience to the answer categories the researcher has included in the survey. This way the essence of tourist experiences being a narrative, stored in an autobiographical way in the long-term memory is basically not taken into account. This problem can partly be solved by using (semi-structured) interviews, but in these face-to-face settings between respondent and researcher, social desirability bias can occur and tourists may feel forced to come up with details and experiences they think are relevant for the researcher. Also, these interviews are unlikely to be held shortly after the experience, allowing memory biases to influence the answers during the interview. While this is an issue that pertains to all types of memory reproduction, including writing stories on travel blogs, these experiential accounts are more likely to be written down shortly after the experiences have taken place.

The enormous increase in internet use and consumer-to-consumer communication via weblogs tackles these methodological constraints and provides researchers with an unobtrusive method to collect a wealth of data that can be used for an analysis of several –in this case tourist related- issues via user generated content such as narratives, pictures and videos (Volo, 2010). These data should be less impacted by abovementioned biases and providing a more ‘authentic’ insight in people’s experiences. As Banyai and Glover put it: ‘Blogs offer the opportunity to reveal tourists’ interpretations of tourism products and experiences, and to express tourists’ impressions, perceptions, thoughts, and feelings, all that may otherwise not be revealed in a more constrained research environment such as personal interviews’ (Banyai & Glover, 2011, p. 2).

Another advantage of using weblog content as data source, is the accessibility of data; the weblogs often are publicly available on the internet, free of charge. Yet, since research on online data is relatively new, not much precedents are available on the ethical issues that might arise. However, Jones and Alony (2008) provide some thoughts on two approaches when intending to use such type of data. First, the study of online weblogs can be considered as being ‘just another’ way of social scientific research, hence implying the need for informed consent. However, the blog writing population is large, dynamic and often anonymous. This combination makes it very difficult or even impossible to achieve the ethical

proposition of informed consent. Second, online weblog content can be seen as a freely accessible product in the public domain of the internet, that can be studied and reproduced, within the boundaries of copyright (Jones & Alony, 2008). However, given the often personal nature of the content of weblogs, researchers should be aware of the intrinsic value of this information and consider whether it is ethically correct to use this without asking the writers.

Nevertheless, having considered both ethical constraints, this thesis employs research on online travel blogs without informed consent because of the following reasons. First, it approaches the content of travel blogs as freely accessible data, that have been put online by its writers being conscious of its public accessibility. Second, while tourist experiences are personal phenomena, it is the writer's view that this research, by focusing on opinions and impacts of something as a-political, impersonal and all-affecting as the weather, does not infringe any moral practices. However, since the body of research on weblog content is likely to grow, I do acknowledge the need as proposed by Jones and Alony (2008) for further thoughts on how to progress towards an ethical code of practice for studying online blog content.

3.1 Selecting weblog content

A qualitative analysis on a number of travel blog entries was employed. More specifically, postings on the Dutch weblog www.waarbenijj.nu were used as data source. On this website, travelers can post their experiences during their trip. The weblog was set up in 1999, an English version was started in 2004. The main goal of the site is to enable travelers to keep in touch with friends, family and other travelers during their time abroad. The content of the website is freely accessible and thus forms a suitable source for the intended analyses of this thesis.

The writers of the travel blogs were Dutch, hence travelling abroad was defined as anywhere except in The Netherlands. The thesis has no specific focus on a continent or country -the weather is present everywhere- and there was no aim to employ a representative sample. This is common for exploratory qualitative studies that are mainly focused at in-depth analyses (Boeije, 2009). However, given the enormous amount of blog content available on the web(site), a selection of which blog content to use had to be made. The procedure to select the content for this research was as follows. The overall aim was to randomly select 200 unique postings with weather related text. Randomized selection was employed by using a tool for selecting random samples on www.randomizer.org. This tool is specifically designed for providing random selections and as such it has been used by many scholars. It has received a number of honors, among which the American Psychological Association 'website of the month' in 2001.

The website *www.waarbenjij.nu* is divided in eight parts, each containing blogs about a certain part of the world. In total 245 countries are represented. These are: 1. Africa (1-53); 2. Asia (54-90); 3. Central-America (91-120); 4. Europe (121-173); 5. Middle East (174-189); 6. Northern-America (190-195); 7. Australia and Oceania (196-229); 8. South-America (230-245). See Appendix A for a full list of countries. Randomly, 200 times of any number between 1 and 245 was selected. After this, a selection had to be made for a specific blog entry. Simply the most recent posting (on top of the first page) was selected. If a country was selected twice, then the second entry was selected too, et cetera. In order to have enough content, the postings qualified for selection when they contained at least 500 words. If not, the next posting was selected, et cetera. If no weather related text was found, the next posting was used. This procedure resulted in a random selection of the 200 weblog postings that were used for the analysis. The data were gathered in June/July 2011.

3.2 The spiral of analysis

The analyses employed in this thesis can be termed frequency analysis, content analysis and/or thematic analysis. Frequency analysis basically pertains to word counts (Pan et al., 2007). Content analysis is a method that assumes a representational function of language; the language people use contains information about people's psychological states (Viney, 1983) and can be used to study any type of verbal communication. The small body of scholars that studied travel blogs often has applied content analysis as a methodology (Banyai & Glover, 2011). Likewise, this thesis analyzed the content of travel blogs. Yet, the stepwise approach called 'the spiral of analysis' as proposed by Boeije (2009) was used and in line with her terminology, here the term *qualitative analysis* is employed instead of content analysis, emphasizing the often overlapping practices of content analysis, thematic analysis and grounded theory. Applying qualitative analysis on weblogs (and on travel blogs particularly) is a relatively new practice. Little robust methodological guidelines currently exist. Yet, qualitative analysis has been applied in many studies on other qualitative data sources such as interviews, books and other 'classic' verbal communication. The primary difference pertains to how data is obtained and not on the method of data analysis. Thus, there should be no reason to change the epistemological considerations that exist for classic content and thematic analysis when studying online travel blogs.

The spiral of analysis is based on concepts originating from Grounded Theory of Glaser and Strauss (1968), of which constant comparison (compare parts of text, relate them to other text parts and put them into perspective of previous experience), open coding ('breaking down, examining, comparing, conceptualizing and categorizing data' (Strauss and Corbin, 2007, p. 61, in: Boeije, 2009) and axial coding ('a set of procedures whereby data

are put back together in new ways after open coding, by making connections between categories' (Strauss and Corbin, 2007, p. 96, in: Boeije, 2009) are the most important. The spiral of analysis pertains to three rounds of data collection that are used to shape order in qualitative content. These rounds include analytical activities, using data in different ways and resulting in a hierarchy of output; a list of codes that is based on the raw data, a list of categories that is based on the codes and eventually a conceptual model that is based on the categories and backed up by additional raw data (see Figure 3.1). However, this thesis did not involve the last step (constructing a conceptual model) and focused only on the first two steps of open and axial coding.

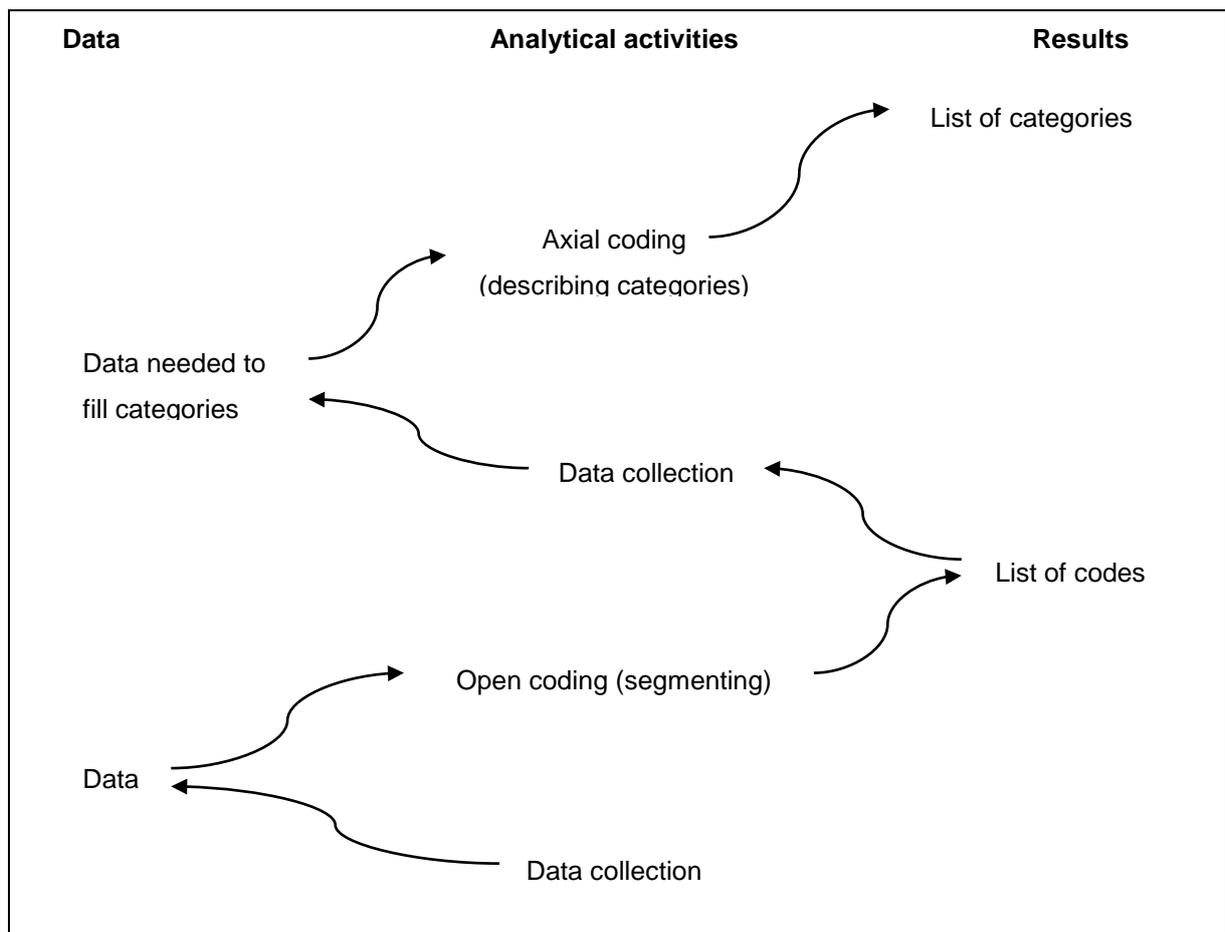


Figure 3.1 The spiral of analysis (Boeije, 2009).

Being guided by the approach of Boeije, the spiral of analysis was employed for a number of purposes. First, to categorize weather types and count the number of occurrences, and second to categorize valuations of the weather and to discover emerging themes of how the weather impacts the tourists. Since there was no a priori categorization objective, the narratives themselves formed the basis for emerging categories, following the principles of Grounded Theory (Boeije, 2009; Glaser et al., 1968; Radulescu & Vessey,

2011). In this type of qualitative analysis a major role is played by the researcher and his/her interpretation of the data. The researcher does not live in a vacuum and brings in expertise, motives, knowledge, feelings and opinions, which are all a source for bias. Therefore, it is common to include more than one researcher in these type of studies, in order to test for inter coder reliability. On the other hand, the role of subjectivity is essential in qualitative research. It enables to bring the data to a higher level as compared to numerical, quantitative studies. Whether this happens or not highly depends on the researcher's analytical skills. However, the purpose and set up of this study did not allow for the inclusion of more than one researcher. The results are thus based on the interpretation of the writer only and he does not claim full objectivity. For the analysis the software program ATLAS.ti is (Version 6.2) was used.

4. Results

4.1 General overview of the sample

Randomly selecting the destinations in which the travel blog writers spent their holidays (Appendix A) resulted in 200 pieces of text in which at least one weather aspect had been mentioned. The pieces of text were written by a total of 184 travellers (some narratives originated from the same traveller). About 61 percent of the travel blogs writers from which gender data was available was female, while 39 percent was male. Also, most travel blog writers were 25 years old or younger (54 percent). Only fifteen percent of the travellers in the sample was 46 years or older. The major part of female travellers was 25 years or younger, while over 41 percent of male travellers was between 26 and 45 years old. Trip duration for female travellers was 23 weeks on average, for male travellers this was 19 weeks: travel blogs appear to be commonly used during relatively long holidays. It has to be noted though, that a few extremely long holidays (up to one of 5 years) have amplified the average holiday length.

This chapter continues by providing results of the rounds of qualitative analysis. Section 4.2 elaborates on the types of weather that were found in the blog narratives. Also, it includes evidence of how the weather is impacting the tourists and the stories they write about. By linking the weather themes with the most important impacts, this section thus gives answer to research questions one, two, and three. Section 4.3 goes a step further and emphasizes the valuation of the weather, thus answering research question four. Within the paragraphs, the results are related to the research questions and a number of conclusions are drawn. The findings are illustrated with quotes, for which quote number, gender and age of the writer and holiday destination are given.

4.2 Weather and impact themes

4.2.1 Weather types

The first and second research question pertained to the variety of weather types that are described on travel blogs. Therefore, short pieces of weather related text and words were coded and categorized. A wide range of weather aspects was found in the travel blog content (Table 4.1). The content analysis that was performed resulted in sixteen weather codes. As can be seen in Table 4.1, tourists describe the weather in more ways than in meteorological weather features. The by far most often mentioned weather type was rain (or a lack thereof). This was followed by accounts of thermal perceptions of the weather (warm/hot weather). Also, the opposite thermal aspect, cold weather, was found frequently in the texts. Other

regularly found weather aspects were Sun/sunshine, Wind and accounts of Temperature. Another interesting type of weather was coded as Contrast, pertaining to both variability of the weather as comparisons between different types of weather.

Table 4.1 Weather codes found in travel blog content.

Weather codes	Number of times used	Weather codes	Number of times used
(No) rain	187	Clouds	32
Warm/hot weather	105	Bad weather	26
Sun/Sunshine	96	Nice/comfortable	26
Wind	94	Thunderstorms	23
Cold weather	77	Humid	22
Temperature	64	(No) snow	20
Contrast of weather types	41	Mist	16
Variability of the weather	33	Clear weather	6

4.2.2 Emerging themes of weather impact

While coding weather related words and phrases provides evidence of important weather types, the use of narratives to study significance of the weather for tourist experiences only becomes meaningful when approached on a thematic level. Thus, and in order to answer research question 3, the focus turned to the way the weather impacts tourists and their holiday experience. Therefore, all narratives were read again and relevant pieces of text that portrayed how the weather impacted on the tourists were coded and categorized in a second round of open and axial coding. A total of eight impact themes emerged (Table 4.2) and evidence was found that indeed a categorization could be made (in line with de Freitas, 2003) between thermal, aesthetic and physical weather. However, as argued above, this categorization did pertain to the *impact* of the weather instead of the *type* of weather and could be embedded in a broader categorization of impact themes that was found in the narratives.

A total of eight impact themes emerged: *'Behaviour/adaptation'*, *'Aesthetics'*, *'Satisfaction'*, *'Physical'*, *'Emotions/moods'*, *'Thermal'*, *'Environment'* and *'Lack of impact'*. Below, the impact themes that emerged are described, illustrated by examples of narrative from the travel blogs. The second round of open and axial coding resulted in a slightly altered categorization of weather aspects as compared to the result of the coding described in section 4.2. This was due to the different goal of the coding process: while the coding in section 4.2 was aimed at categorizing all words and phrases that were weather related, here the goal was to identify the weather aspects that were relevant in the context in which they were used. For example, the 'temperature' code appeared meaningless, unless it pertained

to cold or hot weather, hence two weather codes (high temperature/heat and low temperature/cold) emerged (Table 4.2). Only coding the weather aspects that were relevant for the experience also resulted in a smaller absolute number of used codes. Rain, for example, was in the second round of coding used 82 times (as opposed to 187 times in the first round of coding). Also, more than once it was found that the impact was a combination of two or even more types, which accounts for the complexity of both experiences and weather impacts.

Table 4.2 Emerging weather and impacts themes (number of times found)

Wx themes	Impact on experience	Evaluation
Rain/hail (82)	2. <i>Behaviour/adaptation</i>	6. <i>Emotions/moods</i>
High temperature/heat (82)	Obstructing activity (50)	4. <i>Positive</i> (133)
Wind (55)	Adapting to situation (48)	5. <i>Negative</i> (104)
Sunshine (45)	Protection/Safety (28)	6. <i>None</i> (153)
Low temperature/cold (34)	Enabling activity (26)	Impressed (11)
Variability (29)		Scared/Worried (6)
Favourable (19)	4. <i>Aesthetics/Environment</i>	Happy (5)
Thunder/lightning (17)	Atmosphere (26)	Contemplation (1)
Humidity (16)	Visibility (22)	7. <i>Thermal</i>
Unfavourable (13)	Beauty (18)	Cold (31)
Clouds (13)	Visual/Scenery (14)	Warm (30)
Mist (7)	Flooding (8)	Cooling down (5)
Snow (6)		
Clear/Blue sky (4)	5. <i>Satisfaction</i>	9. <i>Changes/Variation</i>
Rainbow (2)	Comfort +/- (40)	Contrast/Comparison (17)
Drought (1)	Enjoyment +/- (38)	Changing weather (10)
	5. <i>Physical</i>	10. <i>Neutral</i> (9)
	Exhaustion (13)	Lack of impact (9)
	Sweating (12)	
	Wet (9)	
	Sunburn (7)	
	Pain/Damage/Hurt (6)	
	Smell (2)	

Behaviour/adaptation

The behaviour/adaptation theme included impacts of the weather on the behaviour of tourists. The weather appears to have considerable impact on tourist behavior and quite a few accounts of behavioural impacts were found in the narratives. First, weather circumstances can obstruct planned activities in several ways. For example, rain often causes delays, as is exemplified by the following account¹:

¹ All quotes are translated from Dutch to English

“After having walked around for two days, we wanted to go back to Chengdu by bus. It went fine, until we stood still at 2am in a city in the mountains. Because of the rain mud and stones were lying on the road en we could not move forward or backward. We had to spend the night in a bad hotel.” (nr 48:11, Female, 22, China)

Also, a lack of certain weather such as wind and snow results in tourists writing about having to cancel certain activities. Tourists however are highly adaptable to the weather they are confronted with. Hence, also accounts were found describing adaptive behavior in reaction to for example rainy weather or heat.

“We decided not to go snowboarding, which I find a real pity. The reason was that there was just not enough snow. That sucks big time. When we arrived it appeared they could not go hang-gliding at all. The reason: the wind was too unpredictable.” (nr 37:47, Female, 20, Fiji, about New Zealand)

“From Diyarbakir we have taken the bus to Van. The urge to visit Georgia and Armenia, bad weather forecasts and especially the hope for improving weather made us decide to cheat a bit. It is lovely: looking out of the window of a bus, while it is pouring outside!!” (nr 44:60, Male, 27, Armenia)

“From the office I walk home through the hot city, while I keep walking in the shadow as much as possible.” (nr 62:10, Female, 48, Tajikistan)

Tourists also wrote about a specific type of behavioural adaptation -protective behavior- that they performed in reaction to certain weather circumstances. Adverse weather such as rain and wind results in a need to hide from and protect against these types of adverse weather. Sometimes even safety issues were at stake:

“Due to the delays we had to set up camp early in the desert. On the plains we parked the cars in a way they provided some shelter from the strong wind en the accompanying dust storms. Everything got covered in dust..” (nr 11:21, Male, age unknown, Mauretania)

“It started raining again, not hard, but steady. I had to take shelter in an unfinished restaurant building.” (nr 115:18, Female, 34, Mexico)

“Then we walked to the beach to chill a bit, but suddenly it started to rain heavily, so we quickly took shelter somewhere.” (nr 126:20, Female, 19, Uruguay)

On the other hand, the weather enables tourist activities. Sunshine enables going outside and do typical beach holiday activities, while wind results in suitable conditions for watersports. From the following narratives this enabling impact became clear:

“My first, lonely days were signified by heavy rain. When suddenly the sun let the clouds disappear, I was able to visit the location where the village was supposed to be built. Once arrived, all water evaporated from my body en the sun gave me a healthy color.” (nr 17:10, Male, 19, Sao Tome and Principe)

"Wind is supposed to arrive, so let's hope tomorrow I can do my first sailing!!!!" (nr 70:12, Female, 30, Dominican Republic)

"In Montericco it was very warm en we were able to enjoy the sun....lovely!!" (nr 66:8, Female, age unknown, Antigua)

Aesthetics/environment

The second theme that emerged pertained to how the weather influences the way the environment looks like. The aesthetical impact has an influence on the visibility for tourists. Also, the weather, for example rain, changes how places look like by causing flooding and waterfalls. Furthermore, a number of times rainy weather, especially the rain seasons that exists in some places, was noticed to make the surroundings green.

"Due to heavy rain, on the way to Terrace we see many small waterfalls along the road. I also took a photo of a beautiful waterfall." (nr 113:24, Male, 64, Alaska)

"Rain season is slowly arriving, it rains almost every day. The countryside was green already, but now it looks like it turns even greener every day. It is beautiful here." (nr 9:8, Female, age unknown, Liberia)

The weather can enhance the beauty of a place or situation. Sunsets are a popular topic to write about in aesthetical terms. Also, the weather creates a certain atmosphere that has an impact on how the situation or a location is experienced, which can result in both positive and negative perceptions.

"Then on to Arashi Beach where the weather was beautiful. The sea appeared even more blue than usual!" (nr 67:6, Female, 24, Aruba)

"I think I will never get used to how beautiful the mountains can be. The tops were covered with snow and when the sun touched them they changed to bright orange, very beautiful." (nr 30:44, Female, 20, Fiji, about New Zealand)

"The rain on the lake, with after 10 minutes the sunshine made the lake very mystical. De colored trees around the lake made the scene complete. What a dessert after a long walk!" (nr 44:67, female, 27, Armenia)

"Everything was made good when we entered Mongolia. Green hills, with now and then a group of horses and white ger tents under a thick misty cloud. Amazing!" (nr 58:5, Female, 20, Mongolia)

"Because today is Sunday, almost everything is closed. Then it is a rather dead village. It is also raining, which does not do any good for the appearance." (nr 4:30, Female, 42, Congo Brazzaville)

Finally, certain weather circumstances have an impact on the visibility of panoramic views. Clouds and mist are written about as obstructing views the tourists were anticipating on. For example:

“When I finally returned to the pension I bought a beer at Mauru en then I walked to the other side of the Motu to enjoy the sunset. Unfortunately that failed, a lot of clouds, so no sunset to enjoy. A lot of mosquitoes though and I had not brought my insect repellent...” (nr 31:21, Male, 41, French Polynesia)

“Immediately from St Pierre we drove on a beautiful mountain road. It was a bit cloudy so unfortunately we did not see the top of the Mont Pelée.” (nr 76:14, Male, age unknown, Martinique)

Satisfaction

Holiday satisfaction is an important concept in the field of tourism. Although Becken (2010) found that the weather has little impact on overall holiday satisfaction, here several accounts of how the weather impacts the satisfaction of tourists could be distinguished in the narratives. These pertain to both satisfaction and dissatisfaction, as the examples below exemplify. First of all, the weather impacts on the tourists' (dis)comfort. Especially high temperatures are found to be uncomfortable, for example:

“De final week of Lisa (the other Dutch girl in my family) was nicely busy, she wanted to buy many souvenirs, so we went to some market places (where it was 50 degrees en our faces were all covered in sweat, horrible)...!” (nr 2:1, Female, 22, Burkina Faso)

“Now the weather has improved this means mostly working on deck. That is not so bad, since downstairs it is rather warm en on deck it is doable with a little wind.” (nr 79:28, Male, 24, Puerto Rico)

Another aspect of satisfaction that emerged from the narratives pertains to enjoyment of the weather circumstances. The weather types that were written about in this context were mostly sunny and (too) warm weather. Again, the weather can both enhance as constrain enjoyment:

“Our porch was overlooking the sea (where the sun rises), where in the morning it is lovely to enjoy our breakfast in the sun!” (nr 13:51, Female, 21, Mozambique)

“The rain on the lake, with after 10 minutes the sunshine made the lake very mystical. De colored trees around the lake made the scene complete. What a dessert after a long walk!” (nr 44:67, female, 27, Armenia)

“So the conclusion is that Gyeongju is a beautiful city, but not with this kind of weather...” (nr 65:22, Female, 19, South Korea)

Physical

From the narratives it became clear that several weather types impact tourists in a physical way. A physical impact that was written about more than once was sweating, caused by high temperatures and/or strong sunshine. The latter also led tourists to write about getting sunburn, while hot and humid weather causes tourists to become exhausted during their activities:

“While I was sweating heavily due to the heat, he came from upstairs, luckily he wanted to smoke a cigarette, and he saw me.” (nr 3:36, Female, 24, Burundi)

“It is very warm to ride a bike, so I am sweating as if I was in a sauna, but I think that might be healthy.” (nr 37:12, Female, 25, Micronesia)

“We were tanning really fast in the sun today, so we have only lied on the beach for one hour. As red tomatoes we then went to the terrace en we have drunk a tasty wine en we ate a tasty fruit salad.” (nr 98:9, Female, age unknown, Montenegro)

“In the meantime it had become scorching hot, above 40 degrees for sure. When we thought we had arrived in the city after 65km, we still had to bike several kilometers. We were drinking liters of water en we have been resting for many times in the shadow. Both of us were exhausted from the heat.” (nr 64:23, Female, age unknown, Turkmenistan)

Another emerging physical impact theme related to how the weather can cause pain and some tourists wrote about getting hurt through the weather circumstances. These accounts make clear that the weather can pose tourists at serious risk. A less dangerous physical impact that was found in the narratives was caused by rainy weather. A number of tourists did write about getting soaking wet during their travels. Weather types that caused these types of physical impacts were most often rain, thunderstorms and windy weather:

“Last week I woke up in the middle of the night from a very nearby thunderstorm. On a certain moment lightning stroke in the field next to my house. The thunder was so loud, that it hurt my ears and it looked like as if the earth was shaking.” (nr 45:22, Female, 23, Bangladesh)

“It had rained and the road was wet and I used my front break and BANG, there fell...it hurt a lot, but it is remarkable how quickly you come to terms and are able to think logically, I calmly checked if I had broken any bones...No, ok that is fine, I thought, so now I can assess any further damage. Two hurt toes, some scratches on my ankle and leg and a cut in my right arm..” (nr 82:3, Male, age unknown, Trinidad and Tobago)

“During our way back in the bus it was raining very hard en on top of that our bus appeared to be leaking everywhere. Water poured into the bus from everywhere and staying dry was no option during this not so very easygoing ride.” (nr 51:15, Female, 19, India)

“Before we left we only forgot that rain season had started, so we had left our raincoats in the hotel room. Quickly we found out this was not the best decision, because after 15 minutes driving on the motorbike it started to rain heavily, resulting in two soaking wet people!” (nr 56:9, Female, age unknown, Laos)

Finally, some narratives expounded on certain smells the weather caused and which made an impression on the tourists:

“Mother nature was holding her breath too. But then one storm arrived and another one, every time stronger and faster. The dust of the earth filled our noses and mixed with the smell of phosphor. The rain came and did not stop and during the night it rained even heavier. What a relief.” (nr 50:28, Male, 40, Georgia)

“Then, on my way, to Avesnes. Hay was smelling deliciously in the morning mist, the birds were singing to support me.” (nr 85:16, Male, 59, Belgium)

Emotions/moods

The weather has a significant impact on the feelings, emotions and moods of tourists. This impact theme emerged in both directions, thus causing positive and negative emotions. For example, favourable weather makes tourists happy. Also they write about that they feel lucky for experiencing sunny, warm weather types during their holiday. On the other hand, rainy, cold and unfavourable weather are written about as causing a bad mood, disappointment or even make people worried or scared:

“They expect 28 degrees here next week, a lovely prospect!” (nr 118:10, Female, 25, Argentina)

“All day long [surfing] and then ending with a beautiful sunset, while lying on my board and surfing one wave after another. It was one of those beautiful moments to consider yourself lucky.” (nr 71:31, Female, 24, El Salvador)

“That night I have slept so well, after a very long time. It was rather cold, fresh air, because of some heavy storms, luckily that was only after the barbecue! The thunder was very loud and the sky was lit up constantly by the lightning, very exciting!” (nr 88:30, Male, 15, Germany)

“Our first stop is the Athabasca Falls. A beautiful waterfall. Unfortunately it is raining and we were very disappointed.” (nr 114:14, Female, age unknown, Canada)

Certain types of weather, for example strong wind or a combination of weather types such as found during heavy thunderstorms make a big impression on tourists, especially pertaining to the power of nature. The impressive impact of extreme weather has been found too in other studies (van den Berg & ter Heijne, 2005). Examples of narratives in which this is reflected are:

“Another impressive thing here are the sandstorms. When it has been warm for a couple of days en rain arrives, you can bet on it a sandstorms will come. Arriving rain is accompanied by a huge wave of air in front of the rain, pushing up the sand. This results in a wall of sand is coming towards you. Just before the storms arrives, everything turns red and orange and there is no wind for a short moment. Then all breaks loose!” (nr 23:24, Male, 46, Chad)

“After one hour we get a strong 5bft (sometimes even 6bft) from the North-west. Waves are becoming higher, Piet Hein is impressed.” (nr 92:12, Male, 38, Canal Islands)

Thermal

The sixth impact theme that could be distinguished was concerned with the thermal impact of the weather. Just as the Physical and Aesthetic theme, this type of impact was also found in the study of de Freitas (1990). Accounts of thermal impacts of both warm and cold weather were found in the narratives. Another thermal impact makes a connection between the warm and cold thermal experiences and pertains to cooling down.

“Completely exhausted but very proud of ourselves that we made it to the top we were rewarded with a crater lake. Not yet thinking of the way back, we enjoyed a little rest, until we turned that cold (common at that altitude) that we should move again.” (nr 16:35, Female, 22, Rwanda)

“During the evening we played a game of Risk and then we went to bed because it was very cold!” (nr 30:42, Female, 27, Fiji, about New Zealand)

“The large sand plains are scorching hot. Walking through the loose sand we slowly move on. The sun is standing high in the sky so we have no shadow. April in Mali, steam is coming from our ears.” (nr 10:20, Male, 33, Mali)

“Ever since we returned from Batumi, the weather luckily changed and especially in the evening and night there was a cooling wind.” (nr 50:26, Male, 40, Georgia)

Changes/Variation

Many tourists write about how the weather itself is perceived to be changing over time, for example from cloudy to sunny or from cold to warm. Also, this impact theme includes notions of how varying weather types are compared to and contrasting each other in the perception of tourists. Tourists write on their travel blogs about how they perceive different environments, climates and weather types in terms of contrast between them. They analyze the world around them and make comparisons. Not only do tourists compare different types of weather they encountered during their holiday, also the holiday weather is compared to the weather in The Netherlands.

"We also slept in a tent on the crater rim, which was very very cold. After 4 months in tropical weather these 2 to 3 degrees felt like winter!" (nr 22:11, Female, 20, Tanzania)

"Sunday 16 degrees beautiful weather, the sun was shining and we were drinking a beer outside in the garden. We thought, spring is definitely coming. But... the next morning we looked out of our window and it was snowing heavily. So no spring but a lot of snow. We planned to drive 440 kilometers to the East on Tuesday to a little town Sarkand, but we have postponed that for one day." (nr 54:1, Male, 23, Kazakhstan)

"When I arrived in El Salvador is was muggy and warm, but here you are in the mountains and it is a bit fresh." (nr 71:28, Female, 23, El Salvador)

"The rest of the day will bring more rain showers (reminds me a lot of The Netherlands, although the amount of water here is huger!), so that is fine. But, we do not yet arrive in Port Noire due to this delay, which means another bush camp..." (nr 4: 29, Female, 42, Congo Brazzaville)

"Yesterday morning I was picked up by Mr. Azad. The heat outside is just amazing. It immediately becomes clear you are not in Europe anymore. Yesterday was ridiculously hot though, about 30 degrees." (nr 12:27, Male, 23, Mauritius)

Neutral

The final theme is a bit of an outsider. Yet, the emerging type of impact was found in several narratives. Tourists sometimes gave notion of the fact that despite a certain type of weather that they were confronted with, it did not affect their activities, their moods or their plans. Thus, they specifically wrote about the weather as being there and experiencing it, but without having an impact in terms of any of the above themes.

"For the first time I arrived at Chuuk. It was very warm and humid, but I was used to that because in Guam it was the same." (nr 37:13, Female, 25, Micronesia)

"The heat should make sleeping harder, but even a tornado could not keep us awake, we were that tired from the trip and the nice day." (nr 91:8, Male, age unknown, Italy)

"We enjoyed Rio very much despite the not so good weather." (nr 120:22, Female, age unknown, Brazil)

4.2.3 Summary

Tourists not only perceive typical and more frequently studied weather features such as hot or cold weather, rain or sun, but also write about humidity, thunderstorms and mist, for example. Furthermore, tourists write about the weather in meteorological expressions, but they also use more subjective terms such as nice, good, bad weather, favourable or unfavourable weather. This is in line with previous studies (Denstadli et al., 2011; Stewart, 2007). Accounts of the weather thus often implied a valuation, a notion of subjectivity and are

described as an experiential phenomenon. They link the experienced weather with their plans, previous experiences and expectations and put a value label on it. This not only pertains to thermal aspects of the weather, which were often described as relatively warm or cold. Tourists experience a combination of weather aspects and evaluate them as favourable or unfavourable in relation to their plans and/or expectations. To date, many studies - although implicitly assuming- have not taken into account this evaluating step in the process of weather experiences.

While the weather themes that were written about on the travel blogs varied widely, the ways the weather has an impact on tourists and their experiences diverged even more. Research question three intended to find how the weather impacts on tourists and their activities. It was found that the sixteen weather themes impact on tourists in 30 different ways. These 30 means of how the weather impacts were meaningfully categorized under eight impact themes. The weather both enables and obstructs tourist behaviour, such as activities and travel plans. Next, it causes tourists to protect themselves in order to stay safe. Also, it has an impact on the beauty or dullness of the environment and atmosphere. Certain types of weather, such as sunshine and –to a lesser extent- warm weather positively influence tourist satisfaction in terms of comfort and satisfaction. The opposite seems true for weather types such as rain and cold. Heat is experienced as enjoyable but also as uncomfortable. Related to this is the physical impact of the weather, which can materialize in sweating, getting wet and exhaustion, but also in pain and getting hurt. Next, the weather evokes emotions and affects the mood of tourists. Thunderstorms makes people scared, while sunshine (sunsets) evoke happiness and rain, mist and cloudy weather result in disappointment. Variability in the weather can give a sense of feeling lucky, with good timing of dry weather for example. In line with de Freitas (2003), thermal effects are considered a special type of physical impact. These pertain to both experiencing heat or cold and are often related to comfort, while extreme high and low temperatures are related to discomfort.

Furthermore, people give notion to changing weather circumstances, whether it is due to themselves travelling or due to changes in the weather. Tourists also tend to be impacted by contrasts in the weather and compare different types of weather and climates. Finally, the weather paradoxically is impacting on tourist experiences because it has no impact. This might be a sign of the adaptability of people and their ability to create an 'personal microclimate that is acceptable' (de Freitas, p.50). As argued earlier, the weather as a phenomenon does not exist in isolation. It's impact and significance gets its true meaning by the experience of people and their perceptions. In sum, these results provide a new, more detailed basis for the conceptual model of tourism climatology as presented by de Freitas (1990, 2003). The next section incorporates the way the weather and the weather impacts are evaluated by the tourists.

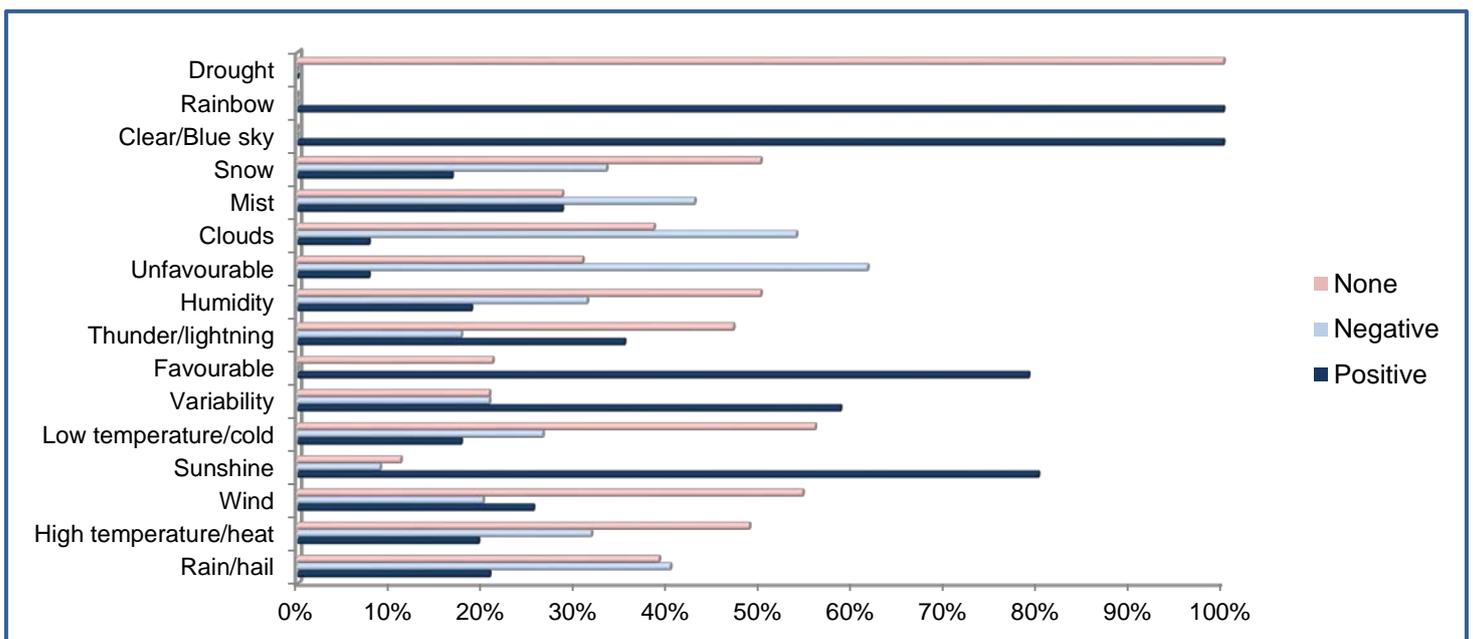
4.3 Evaluations of weather experiences

How the weather is evaluated by tourists is one of the four research questions of this study. The importance of a positive or negative evaluation of an experience in which the weather plays a significant role was argued to be relevant since these experiences shape the holiday experience. Indeed both positive and negative evaluations could be distinguished. In total 133 positive evaluations and 104 negative evaluations were identified. Also, 153 times

Table 4.3 Number of positive and negative evaluations per weather theme.

Type of weather	Positive	Negative	None	Total evaluations
Rain/hail	17	33	32	82
High temperature/heat	16	26	40	82
Wind	14	11	30	55
Sunshine	36	4	5	45
Low temperature/cold	6	9	19	34
Variability	17	6	6	29
Favourable	15	0	4	19
Thunder/lightning	6	3	8	17
Humidity	3	5	8	16
Unfavourable	1	8	4	13
Clouds	1	7	5	13
Mist	2	3	2	7
Snow	1	2	3	6
Clear/Blue sky	4	0	0	4
Rainbow	2	0	0	2
Drought	0	0	1	1

Figure 4.1 Percentage of positive and negative evaluations per weather theme.



the weather played a significant role in a narrative, but there was no account of an evaluation of the weather or its impact. Table 4.3 provides an overview of the number of times a positive or negative evaluation was found for each weather category. Figure 4.1 shows the percentage of positive and negative evaluations per weather theme. Rain is mostly negatively evaluated. Interestingly, heat/high temperature also is most often negatively evaluated. It seems that tourists specifically tend to write about heat or high temperatures when it affects them negatively. Positive accounts of warm weather are often written down in terms of favourable weather or pertain to sunshine. These weather themes show a high level of positive evaluation. Other negatively evaluated weather themes are humidity, clouds, mist and also low temperatures/cold. On the other hand, wind, variability of the weather, sunshine, but also thunder/lightning are more often evaluated positively than negatively.

In order to provide an answer to research question four, the evaluations had to be linked with the type of weather and context they related to. Therefore, for each weather theme, the evaluations are provided, along with the most important impact themes and exemplifying quotes, to illustrate the way the weather is positively or negatively impacting tourists. The following subsections expound on both positive and negative evaluations of the weather. Not all types of weather that were found in the blog postings were valued positively or negatively. Sometimes the weather was used to provide contextual embedding and thus was used as a narrative tool (see also: Harley, 2003), without a positive or negative evaluation. However, the goal of this thesis was not a narrative analysis, so it does not expound on a categorization of descriptive use of the weather. The accounts in which the weather was used this way, or narratives that included weather as a contextual tool are therefore not included in this analysis.

4.3.1 Positive evaluations

Rain/hail

Rain has a positive impact on aesthetical experiences, for example on how the scenery and environment is perceived. The changes in environments that are caused by the rain, such as the abundance of green colors in the landscape or the appearance of waterfalls are valued positively:

“Due to heavy rain, on the way to Terrace we see many small waterfalls along the road. I also took a photo of a beautiful waterfall.” (nr 113:24, Male, 64, Alaska)

Positive valuations of rain in relation to behavioural impacts tend to apply to the way tourists are able to protect themselves or adapt to the rainy circumstances. This also relates to the

lack of impact that rain has on tourists. Another way rainy weather is valued positively is because tourists perceive themselves to be lucky due to a lack of rain. A number of accounts provided evidence for this. Also, rain is evaluated positively in the context of thermal impacts. Rain can have a cooling effect on tourists, which appears to be appreciated during warm weather.

“During the night it rained heavily again, but luckily it did not bother us, despite the zip of the tent breaking down. With some clothespins and the bag of Anne we prevent real disasters thus far.” (nr 55:17, Female, age unknown, Kyrgyzia)

“For the first time we were very lucky, because the waterfalls are in a rainforest the chance of, indeed, rain is big... but every time we are hiking it was dry and during the driving in the car it was raining.” (nr 72:6, Female, 24, Guadeloupe)

“It is nice, the rain had pushed away the heat and caused a lovely temperature of around 20 degrees.” (nr 97:4, Male, 19, Moldavia)

High temperature/heat

Tourists, especially in the context of sun, sea and sand holidays, are assumed to appreciate warm weather. Indeed, several narratives provide evidence for this. For example, warm weather makes people happy and appears to enhance the satisfaction of people, since they write about enjoying warm weather. Also, warm weather, possibly being an important motive for going on a holiday, is compared to the weather at home. This way it can result in a feeling of ‘being away’. Finally, one tourist wrote about the healthy impact of heat.

“They expect 28 degrees here next week, a lovely prospect!” (nr 118:10, Female, 25, Argentina)

“Tomorrow is our final day here, so we do not do much, only enjoying the sun and the warm weather.” (nr 70:9, Male, 38, Dominican Republic)

“In Montericco it was very warm en we were able to enjoy the sun....lovely!!” (nr 66:8, Female, age unknown, Antigua)

“The heat outside is just amazing. Immediately it is clear you are not in Europe anymore” (nr 12:27, Male, 23, Mauritius)

“It is very warm to ride a bike, so I am sweating as if I was in a sauna, but I think that might be healthy.” (nr 37:12, Female, 25, Micronesia)

Sunshine

Sunshine is one of the key weather aspects in tourism and one of the three elements of so called '3S tourism' (Sun, Sea, Sand). Accordingly, many tourists wrote about the sun and how it positively affect their holiday experience. The positive impacts of sunshine varied though. First of all, sunshine is aesthetically valued, especially sunsets and sunrises. Also, sunshine influences tourist behaviour, for example by enabling planned activities of tourists. Just as warm weather, experiencing sunny weather makes people happy. Also, tourists feel lucky that they get sunshine during their holidays. Similarly, sunshine during the holiday is compared with the weather back home. The following quotes exemplify the positive evaluations of the impacts described above.

"In the meantime the sun was rising. It was shining bright colours on the mountain tops, giving a beautiful contrast." (nr 30:43, Female, 20, Fiji, about New Zealand)

"It is still fresh, but tomorrow will be SUNNY! We are going to enjoy cruising in the sun, hopefully with some more seals!" (nr 38:48, Female, 19, New Zealand)

"All day long [surfing] and then ending with a beautiful sunset, while lying on my board and surfing one wave after another. It was one of those beautiful moments to consider yourself lucky." (nr 71:31, Female, 24, El Salvador)

"How lucky are we with the weather. The sun is shining bright and it is plain warm." (nr 113:22, Male, 64, Alaska)

"In the meantime it is July here in Argentina too, meaning winter. Now you have to adjust your idea of winter, because during the day it is still 10 to 13 degrees, sometimes even almost 20 degrees... during the night between 3 to 7 degrees... also the sun is shining often during the day. Not as strong obviously, but it is very clear and light, a big difference with our dark winters." (nr 118:17, Female, 30, Argentina)

Next, positively evaluated physical impacts of sunshine pertain to the burning of the sun and consequential tanning of the skin. People enjoy the sun and feel comfortable. Many positive accounts of sunshine also pertain to the satisfying impact sunshine has on tourists. It makes them enjoy their activities or just the enjoy the experience of sunshine itself.

"When suddenly the sun let the clouds disappear, I was able to visit the location where to village was supposed to be built. Once arrived, all water evaporated from my body en the sun gave me a healthy color." (nr 17:10, Male, 19, Sao Tome and Principe)

"But we enjoyed ourselves waiting, because the weather is great! And waiting in the sun is not that bad." (nr 11:22, Male, age unknown, Mauretania)

"In the afternoon –just as the day before- enjoying our private pool and the sun." (nr 35:25, Male, age unknown, Kiribati)

"We also put the bikes inside and we departed for the village. There once more had a look at the shops, enjoying sitting in the sun on a terrace while drinking coffee and chocolate, handed in the bikes and went to our next destination: the town of Talkeetna!" (nr 113:19, Male, age unknown, Alaska)

Low temperature/cold

Cold weather is found to be positively experienced by a number of tourists. A positive evaluation of cold weather was found, when one tourist was happy not having to spend more time in a warmer environment. Likewise, cool weather was perceived comfortable, since it is a contrast to hot holiday weather.

"In the meantime I have moved from hot Ampara to Galle and here it is significantly cooler, more rain showers and even a bit cold. But I am not complaining, it is enjoyable, finally not being in the heat..." (nr 61:16, Female, 26, Sri Lanka)

"In the evening Daniel has taken us to a luxurious restaurant where we have enjoyed sitting in the coolness of the evening, next to a beautiful pond, live music and enjoying our meal." (nr 13:30, Male, 26, Mozambique)

Variability

Variable weather is common to Dutch tourists, since it is a typical aspect of the weather in The Netherlands. However, on their holidays it has some significant impacts. For example, the changeability between sunshine and rain is perceived as creating a special atmosphere or having a significant impact on the environment. Also, when people travel around during their holiday they have a chance to experience a variety of weather circumstances. Some are impressed in a positive way by these changing climates and weather types. Next, if people know that the weather is going to change, they make sure to enjoy it while it is still favourable, for example for enjoying the beach.

"The rain on the lake, with after 10 minutes the sunshine made the lake very mystical. De colored trees around the lake made the scene complete. What a dessert after a long walk!" (nr 44:67, female, 27, Armenia)

"It is bizarre to see how many different things the country has to offer. While we were enjoying the sun one week ago in Kibuye (being very lucky, since rain season was not over yet), followed by being in the middle of humid and hot rainforest, now we arrived at a cold, rainy, volcanic place." (nr 16:8, Female, 22, Rwanda)

"After lunch we immediately put on our bikinis and were lying on the terrace for a final tan. For Monday and Tuesday rain and thunderstorms were predicted, so we enjoyed the final sunshine." (nr 98:8, Female, age unknown, Montenegro)

“This place was not very much worthwhile, so we proceeded to Dilijan, the ‘little Switzerland of Armenia’. Amazing mountains, full with coloured trees. Autumn is starting here too.” (nr 44:66, Female, 27, Armenia)

One tourist gave an interesting account of the physical impact of variable weather, since it resulted in an experience of getting wet and drying up alternating in very short intervals:

“So we thought let’s do a kayak tour. We were dropped on a beach where a movie was recorded...no clue about the name. The tour took a whole day and was very relaxed. The pity was that once encountering a tropical shower, you were soaking wet until the bottom of the kayak...but after 20 minutes you were dried up again, making it very pleasant to paddle along all day.” (nr 40:7, Male, 25, Palau)

Variable weather includes often some type of good weather, such as sunshine or high temperatures, that is alternated by more adverse weather types, such as rain or clouds. Therefore, a number of blogs included accounts of the positive evaluation of variability of the weather, especially as contrast with bad weather:

“The morning after our arrival we got up and the sun was shining, lovely after all that mist.” (nr 43:56, Male, age unknown, St Pierre and Miquelon)

“In the meantime I have moved from hot Ampara to Galle and here it is significantly cooler, more rain showers and even a bit cold. But I am not complaining, it is enjoyable, finally not being in the heat...” (nr 61:16, Female, 26, Sri Lanka)

Favourable weather

The name of this weather theme implies a positive perception of the weather. Indeed, the blog content included many positive evaluations of favourable weather. Likewise there were no positive evaluations of the opposite weather them ‘unfavourable weather’, which is not surprising given the positive linguistic meaning of the word. This theme included weather descriptions in non-meteorological terms, or a combinations of weather aspects that implied favourability such as ‘good’ or ‘suitable’. The positive impacts that are described in the blogs are diverse. For example, favourable weather positively impacts the aesthetical value of the experience of tourists. Also, favourable weather enables tourist activities, enhances positive emotions such as feeling lucky, and results in holiday satisfaction. This is exemplified by the following quotes.

“Then on to Arashi Beach where the weather was beautiful. The sea appeared even more blue than usual!” (nr 67:6, Female, 24, Aruba)

“The wind was favourable to sail to Miquelon, it was still sunny. We enjoyed a lovely sailing breeze and it was a quick trip.” (nr 43:59, Male, age unknown, St Pierre and Miquelon)

“We are very lucky with the weather here in Brazil. Since it is in the middle of winter here, so it can be cold for Brazilian standards, or rain a lot. That happened, but every time just before we arrived. In El Salvador it had been raining just before our arrival too, but we did not see a drop of rain. In Guaraja it was only 15 degrees, until we arrived. En everywhere we go they say the same; the weather was bad until yesterday. But we did not encounter that, so we are very lucky.” (nr 120:20, Female, age unknown, Brazil)

“The temperature and the weather are excellent! I certainly do not miss The Netherlands, the cold and the wind. It is just a lovely tropical spring here. I do not know about you all, but I have to impression I am slowly getting a tan....!” (nr 83:29, Male, 24, Turkish and Caicos Islands)

“It is confirmed we stay in this area. So we keep the good weather! Which I like very much.” (nr 79:29, Male, 24, Puerto Rico)

“The next couple of days we spent on several islands. We were lucky with the beautiful weather that was continuing, so we were able to lie on the beach and do nothing for days in a row. Such a nice feeling. It a bit as if we were on a holiday.” (nr 30:50, Male, age unknown, Fiji)

Thunder/lightning

Thunderstorms were found to have a significant number of positive evaluations. This is interesting, since this type of weather often is accompanied by weather types that are generally perceived as adverse, such as rain, wind and humidity. However, tourists wrote about how they enjoyed the view of lightning. Also, thunderstorms can have a positive effect on the thermal comfort of tourists, by the cooling effect of the rain:

“We have enjoyed the amazing sights en spectacular thunderstorms, an incredible spectacle above the lake, hills and dark clouds!” (nr 16:37, Female, 24, Rwanda)

“About once a week it is storming, with thunder and heavy rain. Which is great just to take a breath, but is it very severe weather. Sometimes trees are uprooted and sandy roads are not much left of the next day. If you are on your way, you need to take shelter somewhere, but that is no problem with the hospitality here.” (nr 45:21, Female, 23, Bangladesh)

Humidity

Humid weather is positively evaluated by few tourists. One tourists wrote about the humidity of his holiday destination as signifying that he was away from home and enjoying the warm, humid weather.

“Yesterday I arrived safely in Nigeria, on the airport in Abuja. After a relaxed KLM flight (the Sahara is huge!!) in only a half filled plane, we (me, Sophie, the daughter of Peter, the CEO of Dadtco) arrived around 8 o’clock in Abuja. Lovely, that humid heat!” (nr 14:23, Male, 29, Nigeria)

Other weather types

Some weather types that were found less often in the narratives are described here. These types of weather had a variety of positive impacts. Mist and clouds were positively evaluated because it added to the atmosphere and scenery, thus having an aesthetical impact. Next, snow was positively evaluated because it enabled winter sport activities.

“The water here is amazing here and due to the clouds it looks like a mixture between blue and green, very beautiful.” (nr 83:26, Male, 32, Turkish and Caicos Islands)

“Hay was smelling deliciously in the morning mist, the birds were singing to support me.” (nr 85:16, Male, 59, Belgium)

“Because yes, it has snow heavily this week, over 25 centimeters at least. So the ski slopes are open and hopefully I can enjoy some [skiing] this weekend!” (nr 38:54, Female, 20, New Zealand)

Clear weather and blue skies had a positive aesthetical impact, enhancing visibility and beauty of the scenery. Finally, one tourist wrote about the aesthetical beauty of the rainbows she saw:

“The next day though, totally clear and beautiful! Have to say, I was pretty impressed!” (nr 63:8, Female, age unknown, Tibet)

“There is quite often some drizzle or rain, so there are rainbows everywhere! Along the road, on top of rivers and even above the sea!” (nr 38:51, Female, 23, New Zealand)

4.3.2 Negative evaluations

Rain/hail

Despite the abovementioned positive impacts of rain, experiencing rain during a holiday is mostly evaluated as negative. First of all, rain has a negative aesthetical impacts and causes a dull atmosphere, but also negatively influences visibility.

“Because today is Sunday, almost everything is closed. Then it is a rather dead village. It is also raining, which does not do any good for the appearance.” (nr 4:30, Female, 42, Congo Brazzaville)

“It was a rainy morning, so unfortunately it was very misty at the waterfalls and we could not fully enjoy the panoramic views.” (nr 124:23, Female, 28, Guyana)

Another important negative impact of rain is that it obstructs tourists to do the activities or itineraries they planned and forces them to adapt to the rainy circumstances, thus having negatively valued behavioural impacts. Ten narratives were found in which this was described, for example:

“My Cambodia adventure started in Shihanoukville, where we did not do much, because it was raining continuously. Unfortunately we could not go to the islands due to the bad weather, so we moved to a very beautiful guesthouse in the neighbourhood.” (nr 47:12, Female, 23, Cambodia)

Rainy weather causes tourists to write about their emotions and moods. Often this was disappointment, for example because of being forced to change travel plans or activities. Also, two tourists made a negative evaluation of rain and made comparisons with the weather they are used to at home:

“Very special though, such a day being totally separated from everything and totally nothing around. To make things worse it was raining heavily all day long, so the only thing I could do was staring at the sea from my cabin.” (nr 29:7, Male, 33, Comoros)

“Yesterday evening we thought to have reached to worst part of our trip, but this morning it got even worse...because now it also rains...this does not make us happy...what do we have to do here for 3 WHOLE DAYS??” (nr 102:4, Male, 26, San Marino)

“It is raining continuously for 3 days now, in the meantime many roads have turned into mud pools and holes etc. A bit of a pity, but well, the rain makes it look like a Dutch summer with bad weather.” (nr 120:24, Male, 24, Brazil)

A logical physical impact of rain is that people get wet. This was evaluated negatively by some travel blog writers. Related to this was the discomfort rain causes when getting wet, which is an example of the negative impact of rain on tourist satisfaction.

“During our way back in the bus it was raining very hard en on top of that our bus appeared to be leaking everywhere. Water poured into he bus from everywhere and staying dry was no option during this not so very easygoing ride.” (nr 51:15, Female, 19, India)

High temperature/heat

Several tourists write on their blogs about how the heat influences them negatively. High temperatures have negative behavioural consequences, such as forcing them to cancel their activities because it is too hot for it. Also, physical impacts of heat such as sweating and exhaustion appear to result in negative experiences.

"Today after the Patbingsu we went back to the hostel, because it was just too hot to do anything else." (nr 65:28, Female, 19, South Korea)

"It was a very interesting trip, but it was so hot and humid!!! The only thing left of me was a big pool of sweat haha." (nr 12:30, Female, 24, Mauritius)

"Walking through the city is exhausting and the feeling temperature is 30 degrees at least, so Juliet style. Soon we have to walk another 40 minutes back home again on gravel roads (is that possible?)! Wish us luck." (nr 22:10, Female, 18, Tanzania)

Next, heat and high temperatures also have several negative effects on the satisfaction of tourists. Often heat causes discomfort, but also inhibits the joy of tourists. Thus, although warm weather is appreciated during a holiday, there certainly is a limit to the extent high temperatures positively add to the holiday experience.

"It is very hot here and despite the swimming we were feeling more dirty every the hour" (nr 57:3, Male, 30, Malaysia)

"In the meantime we left Pusan behind en now we are in Gyeongju, but tomorrow fortunately we return to Seoul... 'fortunately'? yes... very fortunately because it is horribly hot en humid here and Wietske is getting a bad karma because of all the animals she has to kill for me." (nr 65:26, Female, 19, South Korea)

"It's just that next week it will get 30 degrees here or even warmer, so it has to be seen if we are still happy then..." (nr 100:10, Female, age unknown, Portugal)

"Daaaaaaaaaaaaaaaaamnnnnnnnn, it's hot. That's basically all there is to it." (nr 109:13, Male, 30, Yemen)

"We had te great idea to travel with a local bus, to save money. That was the worst idea so far. It was bloody hot. But then really bloody hot. And the trip took 7 hours." (nr 61:14, Female, 16, Sri Lanka)

Sunshine

Next to the many positive evaluations of sunshine and its impact on tourists, also some negative evaluations were found. First of all, strength of the sun is evaluated negatively. Related to this, the physical impact of getting burnt is also found as a negative aspect of sunshine:

"We now are at the beach of Koulikoro, a city north east of Bamako, picturesquely situated along the might Niger. So close to the water, still it feels like being in the Sahara, with the relentless sun affecting everybody." (nr 10:18. Male, 33, Mali)

"And the sun was still shining, so we went on enjoying it. And yes I have known we did, I am very reddd, so it is very ugly, because my face, neck and arms are red:S." (nr 105:9, Female, 18, United Kingdom)

Also, having to travel during sunny weather was perceived negatively by one tourist, mostly because sunshine and the related high temperatures result in a feeling of discomfort and thus negatively influencing holiday satisfaction.

“The trip back was tougher, on the middle of the day in the sun. Another packed van (how do they do that?), not having had a shower for two days, so we did not smell very well. How much we longed for our bed!” (nr 6:24, Female, 18, Ethiopia)

Low temperature/cold

Cold weather during a holiday has a number of impacts on tourists that they evaluate negatively. Cold weather forces people to adapt their behavior, to protect them. Likewise, sometimes the weather is too cold for certain activities.

“I assumed Africa was a comfortably warm continent. Well, I will wake you up: it is freezing when the sun is gone! Incredible. Also in Namibia it was very cold. Since I was not fully prepared for that, I have the wrong sleeping bag, because it is one of those thin ones for warmer places. I will tell you how I solve this; first I put a thin fleece cloth on the bottom of the tent. On top of that my self-inflatable mattress, with my linen bag. Then my sleeping bag. On top of that a sleeping bag that I borrowed from the truck. My fleece sweater goes on top of that over my feet (feet in the hood) and a folded fleece cloth below my back and bum (when getting cold you need to pee quickly) Then I am wearing a cap that I bought at Table Mountain!” (nr 26:15, Female, age unknown, Zimbabwe)

“This week I have been to Guernsey Candles and of course to the supermarket. Other than that I have not been away since it is raining every day and also it is still cold, so have been watching a couple of the dvd’s. The could have sent me some sun and warm weather too, because there is lack of those here lately. Hopefully it gets warmer soon.” (nr 92:11, Female, age unknown, Canal Islands)

When the cold weather becomes extreme, this results in being impressed by the experience. Cold weather has a negative impact on the satisfaction of tourists. Also, a number of quotes emphasized that cold weather was uncomfortable, therefore having a negative impact on the satisfaction of the travel blog writers:

“4000 meter altitude is COOOLDDD!! Unbelievable! During the day a comfortable 20 degrees, but at night it goes down to -5 en since heating is too expensive in Bolivia and Peru (don’t ask why), there was no place to warm up, even in restaurants and shops it was freezing and everybody was eating wearing a jacket and cap.” (nr 119:24, Male, 25, Bolivia)

“During the night it can become very cold. Having a shower in the morning then is not very comfortable, because it is so cold to get out of the shower and it is hard to keep the shower warm...so I think it is about time for summer.” (nr 25:13, Female, 27, Zambia)

“About 1.5 hours later we arrive at the freezing Kiruna, Laplan. A snowy city above the arctic circle. Meters of snow. Freezing cold air. Icy sharp wind. Wearing only a jeans I can say it is not very comfortable.” (nr 107:13, Female, 27, Sweden)

Variability

Variability of the weather can result in unmet expectations, possibly causing tourists having to change or cancel their plans. Next, it causes tourists to be unsure about what type of weather to expect. This can result in feelings of worry or disappointment when the weather turns bad. Variable weather can also have negative physical impacts, such as exhaustion.

“Sunday 16 degrees beautiful weather, the sun was shining and we were drinking a beer outside in the garden. We thought, spring is definitely coming. But... the next morning we looked out of our window and it was snowing heavily. So no spring but a lot of snow. We planned to drive 440 kilometers to the East on Tuesday to a little town Sarkand, but we have postponed that for one day.” (nr 54:1, Male, 23, Kazakhstan)

“Unfortunately the good weather of earlier this week turned to clouds and some rain now and then.” (nr 30:46, Female, 20, Fiji, about New Zealand)

“The hikes of 6 to 7 hours were not very tough. De variability of the weather and my bad preparation made it very exhausting though!” (nr 38:46, Male, 25, New Zealand)

Another impact of variable weather is that it makes tourists aware of the contrast between environments with different weather types. By comparing warm and cold weather for example, this is evaluated negatively when experiencing the unwanted weather type.

“In the shopping malls you need to wear a fur coat, otherwise you freeze! And outside it is 30 degrees warmer..hhmmm...” (nr 32:3, Female, 26)

Thunder/lightning

The negatively evaluated behavioural impact thunderstorms have are written about on the travel blogs. For example, thunderstorms cause tourists to take precautionary measures, such as hiding in order to stay safe. Also, they have significant impact on the environment, for example by the flooding of roads. One quote sums it all up:

“About once a week it is storming, with thunder and heavy rain. Which is great just to take a breath, but is it very severe weather. Sometimes trees are uprooted and sandy roads are not much left of the next day. If you are on your way, you need to take shelter somewhere, but that is no problem with the hospitality here.” (nr 45:21, Female, 23, Bangladesh)

Next, thunderstorms can have an emotional impact and make tourists scared, as becomes clear from the following:

“If there are thunderstorms here, what happens daily, they are that severe that the sky is lit up continuously and the thunder makes you shrivel.” (nr 6:25, Female, age unknown, Ethiopia)

Humidity

Humid weather, especially in combination with heat, causes people to sweat, which is evaluated as a negative physical and thermal impact. Also, humidity has a negative impact on satisfaction. It makes tourists feel uncomfortable.

“It was a very interesting trip, but it was so hot and humid!!! The only thing left of me was a big pool of sweat haha.” (nr 12:30, Female, 24, Mauritius)

“All this whit a ‘comfortable’ tropical temperature of 31 degrees. Due to the high humidity it felt like 40 degrees though!” (nr 35:27, Male, age unknown, Kiribati)

“In the meantime we left Pusan behind en now we are in Gyeongju, but tomorrow fortunately we return to Seoul... ‘fortunately’? yes... very fortunately because it is horribly hot en humid here and Wietske is getting a bad karma because of all the animals she has to kill for me.” (nr 65:26, Female, 19, South Korea)

Unfavourable weather

Unfavourable weather implies a negative evaluation. Indeed, a number of negative accounts for unfavourable weather were found. Logically, no negative evaluations of the opposite -favourable weather- were found in the narratives. Negative evaluations pertained to the negative impact on aesthetics, for example visibility and atmosphere. Also, unfavourable weather has an impact on the mood of tourists, for example causing disappointment.

“Finally arrived at the top... a lot of wind, rain and mist, so unfortunately no beautiful views over Guadeloupe.” (nr 72:7, Female, 24, Guadeloupe)

“Actually I wanted to go paragliding, the place is known for that, but the weather was bad and therefore the whole experience too. Suddenly I did not feel like it anymore when I arrived, when everything looked a bit sad and rainy.” (nr 71:34, Female, 23, El Salvador)

Finally, weather that is unfavourable for certain activities, such as cycling, causes a negatively evaluated physical impact:

“The cycling was super tough. Bad roads, a straight road going up, a strong warm headwind, burning sun, sandstorms, an endless desert alternated by some electricity poles and now and then a shepherd, but above all thirst was exhausting us.” (nr 64:20, Female, age unknown, Turkmenistan)

Clouds

While there was only one account of a positive evaluation of cloudy weather, a number of tourists wrote on their blogs how clouds impacted negatively on their holiday. Clouds appeared to have a negative aesthetic impact, mostly pertaining to limited visibility. Another negative evaluation of clouds was related to the need to adapt activities, due to uncomfortable weather.

“When I finally returned to the pension I bought a beer at Mauru en then I walked to the other side of the Motu to enjoy the sunset. Unfortunately that failed, a lot of clouds, so no sunset to enjoy. A lot of mosquitoes though and I had not brought my insect repellent...” (nr 31:21, Male, 41, French Polynesia)

“Unfortunately it was cloudy that day, so no Everest (8844m) for us.” (nr 63:7, Female, age unknown, Tibet)

“There we had dinner and after that we went to the beach with Tosca. Unfortunately it had become a bit cloudy and there was a fresh breeze, so we did not stay very long.” (nr 100:12, Male, 60, Portugal)

Other weather types

Finally, a number of weather types that were found less often in the travel blogs nevertheless were evaluated negatively by some writers. For example, snow can have a negative behavioural impact, in the sense that it obstruct travel plans. Likewise, mist causes limited visibility, which is negatively evaluated.

“Tomorrow morning we leave at 5am to Bolivia! That was quite some fuss, since for the first time in 25 years it had been snowing in the North of Chile and the South of Bolivia. There we wanted to visit some very impressive geysers, a beautiful green and blue lake and Valle de Tara, but unfortunately this was cancelled since the roads were impassable.” (nr 121:11, Female, 25, Chile)

“It was a rainy morning, so unfortunately it was very misty at the waterfalls and we could not fully enjoy the panoramic views.” (nr 124:23, Female, 28, Guyana)

4.3.3 Summary

Research question four was concerned with weather impact evaluations of tourists. These evaluations of the weather varied considerably. Evaluations were found for all types of emergent weather themes. Though, not all accounts included an evaluation. Sometimes the weather was used to provide contextual embedding and thus was used as a narrative tool (see also: Harley, 2003), without a positive or negative evaluation.

Rain is mostly negatively evaluated, just as heat/high temperature. Other negatively evaluated weather themes are humidity, clouds, mist and also low temperatures/cold. Wind, variability of the weather, sunshine, but also thunder/lightning were more often evaluated positively than negatively. The type of evaluations that were found in the narratives for a large part have high 'face validity' and fit the overall impression that warm sunny weather is experienced as good weather while cold, rainy weather is evaluated as bad weather. Yet, these results make clear that on the level of specific experiences within a holiday, the impact is much more diverse. Rainy weather has a positive aesthetic value and the physical impact of extreme weather appears to have both positive and negative impacts. Furthermore, warm weather has its limits in terms of comfort, while also sunshine can be evaluated negatively. Finally, tourists appear to appreciate variability of the weather, although mixed accounts were found, which reflects the variable impact.

In the following chapter, the results and inferences made in each section above are brought together, resulting in a number of main research conclusions, while at the same time expounding on the limitations of the study. Also, the results are placed into the perspective of the existing body of literature on tourism climatology, discussing implications and possible future research.

5. Main conclusions and discussion

This study had the main objective to better understand the role of the weather in tourist experiences. It applied a new way of data collection by employing qualitative analyses of online travel blog narratives. By doing this, it provides an extensive overview of these impacts and therefore complements to the growing body of research about climate, weather and tourism. As argued in Chapter 2, the fact that the weather is mentioned and evaluated in travel blog narratives and thus is consciously written down, implies that the weather indeed influenced the tourist experiences that are described (Volo, 2010) and that these weather impacts have been stored in the long-term memory (Larsen, 2007) as part of the tourists experience. The purpose of the study was exploratory in the sense that it intended to create a more complete image of tourist weather experiences in addition to the ones that are assumed to date. More specifically, it intended to help fill the gap of empirical evidence on tourist sensitivities for the weather (Denstadli et al., 2011) and provide “observational data to determine the actual responses, perceptions, needs, reactions and expectations of vacationers” (de Freitas, 2003, p.52) that were called for in previous literature.

5.1 Main conclusions

The weather has a significant and complex impact on tourists and their holiday experiences. Also, tourists write extensively about the weather on online travel blogs. *Research question one* and *two* were aimed at identifying weather types that were discussed on weather blogs. A wide range of weather aspects was mentioned in the narratives. A total of sixteen weather types was found. This study provides evidence that the weather is experienced in an even more widespread way than is assumed in previous studies (Becken & Wilson, 2010; de Freitas, 1990, 2003; Denstadli et al., 2011) that focused on the impact of weather and climate on tourism. Accounts of the weather often implied a valuation, a notion of subjectivity and are described as an experiential phenomenon. This not only pertains to thermal aspects of the weather, which were often described as relatively warm or cold. Tourists experience a combination of weather aspects and evaluate them as favourable or unfavourable in relation to their plans and/or expectations. To date, many studies -although implicitly assuming- have barely taken into account this evaluating step in the process of weather experiences. The weather themes that emerged in this study thus add to the current understanding of how tourists perceive the weather as a phenomenon and think and write about it.

While the weather themes that were written about on the travel blogs varied widely, the ways the weather has an impact on tourists and their experiences diverged even more. *Research question three* aimed at identifying how the weather impacts on tourists and their

activities. It was found that the sixteen weather themes impact on tourists in 30 different ways. These 30 means of how the weather impacts were meaningfully categorized under eight impact themes: 'Behaviour/adaptation', 'Aesthetics', 'Satisfaction', 'Physical', 'Emotions/moods', 'Thermal', 'Environment' and 'Lack of impact' (see also Table 4.2). The emerging themes clearly show the relation between the weather on one hand and the impact of the weather on the tourists on the other. It can be concluded that the weather as a phenomenon does not exist in isolation. It's impact and significance get their true meaning by the experience of people and their perceptions. In sum, these results provide a new, more detailed basis for the conceptual model of tourism climatology as presented by de Freitas (2003).

Research question four was concerned with how tourists evaluate the weather and its impact on them. These evaluations varied considerably in direction -positive or negative-, per weather type and per impact. Also, sometimes the weather was used as a narrative tool (Harley, 2003). To draw the conclusion that in these cases the weather did not have an influence on the holiday experience is somewhat preliminary though. This issue will be addressed further in the section below. In sum, these results reveal that on the level of specific experiences within a holiday, the weather impact on tourists and their experiences is significant and very diverse. The holiday experience is built up from peak experiences (Larsen, 2007) related to events during the holiday. This means that the impact and evaluation of the weather in relation to experiences on a 'within holiday level' can have a significant impact on the behavioural and psychological dynamics of tourists during their holiday. Therefore, the results in this study have some important implications for research on tourism climatology. These will be discussed below.

5.2 Discussion

The current study provides further evidence of the complex linkages between weather and tourism. The results add to current knowledge in tourism climatology and the methodology of qualitative analysis (Boeije, 2009) proved to be applicable for studying online blog content. One of the main advantages of studying travel blogs –as opposed to other ways of data collection such as interviews or survey research, where people are 'forced' to think and give opinions about the weather- is that the studied accounts are written down completely voluntarily. This non-obstructive characteristic of the current methodology gives access to data that are free from common biases that are found for more conventional research methods. However, the used methodology also has its limitations and the results of this study should be approached taking these limitations into account.

First of all, the results here are based on a relatively limited sample, that is not a representative reflection of the tourist population. Also, the results presented here are based on the interpretation of the writer only and thus have not been tested on inter-coder reliability, forming a possible source of bias (Boeije, 2009). Next, only travel blog narratives written by Dutch tourists were included. It may be that for people from other cultures or countries the perception and impact of the weather is different, since differences between home climate and holiday climate vary. Also, words to describe weather experiences may vary between cultures (see also: Stewart, 2007). Similar studies in other countries could provide a comparison with the results found here. Another limitation of this study pertains to the type of holidays tourists write about on blogs. The average holiday length of over 20 weeks is not very typical (average holiday length for Dutch tourists is between six and seven days (www.cbs.nl)). Therefore, the dynamics of the impact of the weather are likely to be different: longer holidays imply a higher chance of experiencing a variety of weather types, more options to make up for a period of bad weather, but also a higher chance to experience unfavourable weather. Furthermore, the data were collected during the summer of the Northern hemisphere (June, July 2011). This means, that narratives from for example Europe might include more accounts from the summer, while narratives from New Zealand might pertain more to winter weather than when the data would be collected during European winter. The results from this study thus should not be directly extrapolated to all types of tourists and holidays.

On the other hand, one major advantage of this study compared to previous studies on the impact of weather on tourists, is that it takes into account many more holiday situations and thus accounts for many more holiday activities than just beach tourism for example. Moreover, while duration of stay by de Freitas (2003) is stated to be the best indicator of tourism climate significance, it is the impact of the weather in specific situations that results in a weather experience. In other words, weather experiences are embedded in a situational context, apart from how long a tourist is away from home. Future research could focus on linking specific holiday purposes with the experience of the weather and how this is evaluated by tourists. The impact themes found in this study can provide a starting point for this. Another advantage of the methodology employed in this study is that it has the opportunity to include all weather types and is not constrained to a geographical location, although given the enormous availability of travel blog content, focusing on specific touristic areas certainly is possible (see for example Volo (2010)).

This thesis did employ an analysis of narratives. However, it did not intend to verify why or how specific weather related words or phrases were used, for example as a tool to provide context to the story, to function as an object in time (which, according to Harley (2003) can be one of the reasons for describing weather circumstances). Also, many

accounts of the weather did not involve an evaluation in terms of positive or negative. Moreover, many narratives and travel blogs do not report any weather circumstances, impacts or experiences. These have not been taken into account in this study. The motive of writing or not writing about the weather remains unknown. Was the weather not relevant for these tourists and their holiday activities? Or do they just not care and do not even notice the weather? Both can be possible and by other studies indeed it has been found that people differ in their 'weather salience' (Stewart, 2009). It might also be that although the weather impacts the activities of the tourists as reflected in the blog entries, an evaluation might not feel necessary or in place in order to get the story across.

The results of this study provide evidence for the usability of weblogs for studying the weather in a more phenomenological way and therefore complements literature with a more quantitative approach (Andrade et al., 2010; Becken & Wilson, 2010; de Freitas, 1990; Denstadli et al., 2011; Meyer & Dewar, 1999; Morabito et al., 2005; Scott et al., 2009; Scott & Lemieux, 2010). The wide variety of weather types and ways the weather impacts on tourists experiences indeed does give more insight in the complex relation between climate, weather and tourism. Additionally, this study adds to the growing body of literature that successfully applies travel blogs for studying tourist experiences. Online (travel) blogs appeared, as shown in previous research (e.g., Volo, 2010), to be a wealthy data source for several types of qualitative research. It is therefore hoped that the emerging use of online blog content for scientific research purposes expands considerably in the coming years. However, the results found here are exploratory and should be confirmed by further, possibly quantitative, studies that provide additional empirical evidence.

On a more practical note, understanding how the weather is experienced by tourists is essential for the tourism industry (Becken, 2010). Marketing activities can use this knowledge to promote tourist destinations among specific target groups and for specific activities. Given the increasing pressure on tourism organizations to provide safety and security information, improved weather impact knowledge can be useful as basis for tailor made weather information and related safety policy. Also, the findings of this study can be used for future research on tourist behaviour and how specific weather types and impacts influence travel decisions. For example, as concluded by Denstadli et al. (2011), bad weather results in tourists moving on faster. Specific knowledge on what actually is perceived as 'bad weather' can help in explaining the weather-behaviour link. More generally, the results of this study can enhance the meaningfulness of Tourist Climate Indexes (de Freitas, 2003) by including weather types other than thermal aspects.

Knowledge about how tourist perceive and evaluate the weather, its features and its impacts are important for assessing satisfaction of the holiday in total, but more importantly on the level of specific activities and experiences during the holiday. Future studies can and

hopefully do take advantage of the weather and impact themes that were found here by incorporate and further developing them. When this is done, this study indeed will have proven useful in working towards a more robust empirical foundation of tourism climatology.

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Appendix A

Selected countries

Continent/Country	Continent/Country	Continent/Country
<i>Africa</i>	<i>Asia</i>	<i>Europe</i>
<ul style="list-style-type: none"> • Angola • Burkina Faso • Burundi • Chad • Congo Brazzaville • Egypt • Ethiopia • Kenya • Lesotho • Liberia • Mali • Mauretania • Mauritius • Mozambique • Nigeria • Reunion • Rwanda • Sao Tome and Principe • Sierra Leone • Sudan • Somalia • South Africa • Swaziland • Tanzania • Tunisia • Zambia • Zimbabwe 	<ul style="list-style-type: none"> • Armenia • Bangladesh • British Indian Ocean Territory • Cambodia • China • Philippines • Georgia • India • Indonesia • Japan • Kazakhstan • Kirgizia • Laos • Malaysia • Mongolia • Nepal • South Korea • Sri Lanka • Tajikistan • Tibet • Turkmenistan • Uzbekistan 	<ul style="list-style-type: none"> • Andorra • Belgium • Bosnia Herzegovina • Bulgaria • Canal Islands • Croatia • Finland • Germany • Iceland • Italy • Kosovo • Macedonia • Malta • Moldavia • Montenegro • North Pole • Portugal • Russia • San Marino • Slovenia • Svalbard • Sweden • United Kingdom • Vatican City
<i>Australia</i>	<i>Central America</i>	<i>Middle east</i>
<ul style="list-style-type: none"> • Comoros • Fiji • French Polynesia • Guam • Heard and McDonald Islands • Easter Island • Kiribati • Marshall Islands • Micronesia • New Zealand • Niue • Palau • Papua New Guinea • Saint Helena • St Pierre and Miquelon 	<ul style="list-style-type: none"> • Antigua • Aruba • Belize • Cape Verdi • Cuba • Dominican Republic • El Salvador • Guadeloupe • Guatemala • Honduras • Martinique • Netherlands Antilles • Nicaragua • Puerto Rico • St. Barthelemey • St Kitts and Nevis • Trinidad and Tobago • Turkish and Caicos Islands 	<ul style="list-style-type: none"> • Cyprus • Kuwait • Palestine • Qatar • Yemen
		<i>North America</i>
		<ul style="list-style-type: none"> • Alaska • Canada • Mexico • USA
		<i>South America</i>
		<ul style="list-style-type: none"> • Antarctica • Argentina • Bolivia • Brasil • Chile • Colombia • Ecuador • Guyana • Montserrat • Uruguay • Venezuela

Appendix B.

Overview impact themes

