

# Exploring the mechanism behind the human-nature connection

A theoretical enquiry with a case study on the grass-root nature festival,

Fête de la Nature

MSc Thesis Environmental Sciences

Environmental Policy Group

M.G.J. Soethoudt



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Supervisors

C.S.A. van Koppen

G.J. Nijland

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Author:	M.G.J. (Marjolein) Soethoudt
Student number:	920112-784-110
Program:	MSc Environmental Sciences
Faculty:	Environmental Policy Group
University:	Wageningen University & Research
Place and date:	Wageningen, May 2018
Supervisors:	C.S.A. (Kris) van Koppen G.J. (Dianne) Nijland

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The ambassador of Fête de la Nature, Lodewijk Hoekstra, is pictured on the front page. This picture is available on [fetedelanature.nl](http://fetedelanature.nl)

*“These kind of activities are very good, I think. It invites people to go outside. I think that is very important. Otherwise people just alienate from where we..., yes, this is what we originate from and it is important to stay in contact with that.” (Participant 7)*



## Preface

This thesis is written as part of my Master program Environmental Sciences, for the Environmental Policy Group at the Wageningen University, and was commissioned by Fête de la Nature. It has been completed with the help of a number of people whom I would like to show my appreciation.

In particular, I would like to thank my supervisor Kris van Koppen, associate professor at the Environmental Policy Group, for his patience, confidence and wise advice. I always left our conversations feeling encouraged. Similarly, many thanks to my supervisor Dianne Nijland, board member of Fête de la Nature, for her enthusiasm and a pleasant collaboration. Also thanks to Wyke Smit, who too is a board member, for her critical view and sharp comments.

Furthermore, I would like to thank the rest of the Fête de la Nature board for their welcoming attitude and assistance with conducting the survey, the eight participants who were so kindly willing to be interviewed and all the participants, adults and children, who were willing to fill in the questionnaire. And thanks to my corridor mates for helping me sharpen 400 pencils by hand (to be used for the survey) in one day.

Finally, I would like to thank the all friends and family who mentally supported me during the course of this thesis, and a few in particular: Ineke, Nina, Rinske, mom and dad, I love you.

I hope this thesis will be inspirational to its readers and serves its purpose to contribute to a better understanding of the human-nature connection and provides Fête de la Nature with constructive findings.

Marjolein Soethoudt



## Abstract

The deterioration of the environment by humankind can be attributed to our disconnection from nature. In this light there is an urgent call to (re)connect people to nature, assuming it will translate to a higher affiliation with and care for nature. This study tries to explore the mechanisms behind humans' connection with nature with the help of the combination of the Biophilia hypothesis and the Interaction Ritual Chain theory. This study hypothesises that just like the interaction with other individuals can result in an Interaction Ritual Chain, the interaction with nature can result in a Nature Interaction Ritual Chain. In this interaction emotional energy is generated which motivates people to return to the ritual. In the long run a chain manifests that results in a sense of solidarity, or in other words a connection.

The nature festival *Fête de la Nature* functions as a case on which the model is applied. Qualitative as well as quantitative methods are used to link the experiences of the festival participants with the theorised model. During the festival the participants interacted with nature to a great extent, were very positive about the activities (experienced high emotional energy) and were motivated to return. A path analysis showed significant relationships between the participants' experience with nature, their emotional energy, and their motivation to return, respectively. This suggests that the interaction with nature can indeed lead to a high emotional energy that in turn leads to a willingness to return to nature. It also suggests that *Fête de la Nature* has the potential to play a part in the manifestation of a Nature Interaction Ritual Chain and thus a connection with nature.

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# 1 Introduction

## 1.1 Problem description

For many European people their daily experience with nature probably doesn't go beyond the glance at their local green, visible from their (car)window or taking care of the houseplant or pet. This is no surprise when almost 75% of European's population lives in an urban area (United Nations, 2015) and when we spend on average only 1 to 2 hours outdoors a day (Diffey, 2011). This minimal contact with nature can be said to go together with human's disconnection from nature. The consequences of this disconnection are visible in the numerous environmental problems that have a clear human cause. Nature is very much influenced by our careless doings and even to such an extent that we also indirectly negatively affect ourselves by it.

Moreover, not only do we depend on nature for its materials, nature also has a positive effect on our mental and physical health. Studies show that nature can provide stress relief (Kahn, 1999) and that surgery patients recover sooner when they have a room with a view on nature (Frumkin, 2001; Ulrich, 1984). If we want to protect nature or at least ourselves, something in the way we relate to nature should change. In this light there is an urgent call to (re)connect people to nature, assuming it will translate to a higher affiliation with and care for nature. For as David Attenborough puts it:

"No one will protect what they don't care about; and no one will care about what they have never experienced." (Attenborough, 2010)

Experiencing nature is key in this line of thought. Research has been done already that ascertains the positive relationship between experiencing nature and the connection with nature (Clayton, 2012; Kals, Schumacher, & Montada, 1999). In turn does the connection with nature seem to be a precursor of specific behaviour towards nature (Nisbet, Zelenski, & Murphy, 2009). Extensive retrospective research on nature experiences suggests that experiences with nature during childhood play a great part in people's connectedness with nature later in life (Chawla, 1998, 2001; Tanner, 1980).

However, the question of how a nature experience leads to a connection is unexplored. Understanding the ways in which a connection with nature manifests could be of value when striving for an overall increase in care for nature. This study seeks to explore the mechanisms behind the human-nature connection, by developing a conceptual model that tries to account for the capacity (and need) of human beings to experience a connection with nature through interacting with it. For this purpose, two theories are combined, the Biophilia hypothesis (Fromm, 1973; Wilson, 1993) and the Interaction Ritual Chains theory (Collins, 2004).

One possible way of experiencing nature is by means of feasts or festivals (Keulartz, 2009). Examples of international nature related feasts are: Arbor day, Earth day and Fête de la Nature. The latter is annually celebrated in several European countries, one of which is The Netherlands. The fourth edition (2017) of the Dutch Fête de la Nature functions as a case on which this study's conceptual model is applied.

### Fête de la Nature

The festival originated in France in the year 2007 and since 2009 it carries the official name, Fête de la Nature. It was founded by the French IUCN (the International Union for the Conservation of Nature) and Terre Sauvage. Over the years the festival has gained great popularity. During last year's

tenth edition over 5000 events were spread over 1300 sites. In France the activities are mainly organized by nature organizations and serve the purpose of bringing together experts and visitors.

The popularity of the festival has such a magnitude that it has spread to other European countries like Portugal and Switzerland. In The Netherlands the festival was first organized in 2014, with a set-up that is slightly different from its origin, as the activities are organized by whoever wishes to do so. This includes nature organizations, companies but it mainly comes down to citizens. The Dutch festival thus has a distinctive grass-roots character. The goal of the festival is to get people interacting with nature and each other, in the anticipation of creating more support for nature conservation.

## 1.2 Research objective

The objective of this research is to gain more insight in the ways in which people can connect with nature. To help understand this human-nature connection, a conceptual model, based on the combination of the Biophilia hypothesis and IRC theory, is built. This model is applied to the case of the nature festival, Fête de la Nature, by looking into the experiences of Fête de la Nature participants.

With this insight the research aims to contribute to the knowledge about nature festivals in relation to people's connection with nature and identify possible improvements for Fête de la Nature.

## 1.3 Research questions

This study has the following two main questions and four sub-questions:

### Main questions

1. To what extent can the combination of the Biophilia hypothesis and IRC theory help understand the ways in which people connect with nature?
2. What do participants experience at Fête de la Nature and in which ways can these experiences contribute to their connection with nature?

### Sub questions

What audience did the festival draw and how where they reached?

What experiences did the participants gain at the festival?

What image do the participants have of the festival and what do they think can be improved?

To what extent do the festival findings follow the hypothesized relationships between the themes?

## 1.4 Outline of the report

The next chapter will describe the conceptual framework of this study. In chapter 3 the research methodology is explained. Chapters 4, 5 and 6 present the results and in chapter 7 these results are evaluated and discussed. The conclusions of this study are given in chapter 8 and this report ends with recommendations in chapter 9.

## 2 Conceptual framework

In this study two comprehensive ideas, the Biophilia notion and Interaction Rituals Chains (IRC), will be linked in an attempt to theorize on the ways in which people can get connected with nature. First both ideas will be explained, starting with the Biophilia notion and followed by the IRC theory, where after an elaboration is given on the combination of the two. Together they form the conceptual framework of this study.

### 2.1 The Biophilia hypothesis

In its most literal sense, the word biophilia means 'love of life'. However two notions of the biophilia concept exist, which both encompass more than this basic translation. The most popular version was put forward by E.O. Wilson and has an evolutionary biological underpinning. The other often overlooked and earlier version of biophilia was put forward by E. Fromm. In this version social psychological considerations form the foundation. Here the two versions will be described, for they are both deemed valuable for the conceptual framework of this thesis.

#### 2.1.1 Biophilia by Wilson

The biologist Edward O. Wilson drew attention to the concept of biophilia with his books 'Biophilia' (Wilson, 1984) and 'The Biophilia Hypothesis' (Kellert & Wilson, 1993). Wilson defines biophilia as "the innately emotional affiliation of human beings to other living organisms" (Wilson, 1993, p. 31). The word 'innate' refers here to the genetic character of biophilia, which is the distinctive part of this version's hypothesis. Wilson and Kellert believe that a human being's emotional affiliation for other organisms is the result of extended human evolution in a natural environment. Individuals who were closely involved with surrounding life received a survival advantage over those that were not, since their survival depended on a focus on other organisms (food sources, predators, poisonous or venomous organisms).

Moreover, the hypothesis suggests that through the process of gene-culture co-evolution the evolved affiliation has led humans' dependency on nature to exceed mere material needs (Wilson, 1993). It includes nature's influence on the emotional, spiritual, aesthetic and cognitive levels of human development (Kellert, 1993). The gene-culture co-evolution entails that the advantageous (emotional) focus on nature for survival purposes went together with the use of other organisms in symbols, myth and metaphor when language and culture developed. For Wilson (1993, p. 31), "multiple strands of emotional response (to nature) are woven into symbols composing a large part of culture". The resulted biophilia implies that humans are thought to depend on nature in order to fulfil a wide variety of needs.

The hypothesized extensive dependence on nature has consequences. As Kellert (1993, p. 42) puts it, "this notion intimates that the degradation of this human dependence on nature brings the increased likelihood of a deprived and diminished existence [...], not just materially, but also in a wide variety of affective, cognitive and evaluative aspects". Also, a degradation of nature itself, and the loss of biodiversity in particular (Wilson, 1993), implies negative consequences for the possibility of humans to meet their needs. In other words without either biophilia or nature we would not be able to develop to our full potential or reach personal fulfilment.

The suggested biophilia tendency of humans should not be seen as an instinct, but rather as a complex set of learning rules, "the propensities to acquire or to resist certain emotions and kinds of

knowledge” (Wilson, 1993, p. 38), which come to expression when exposed to the corresponding stimuli.

This could entail the possibility for some humans to express different or more biophilic responses than others. It could even entail the existence of a period during a human’s lifetime with heightened sensitivity to developing biophilic responses, as also occurs with other human predispositions to certain behaviour, e.g. talking. In the example Wilson (1993) gives about snake aversion, that he uses to illustrate the biophilia hypothesis and how to possibly test it, the sensitive period for developing this aversion seemed to be preadolescence.

Since the publication of both books this version of the biophilia concept has gained popularity in a wide range of research fields. For example, it has been applied in the field of preventive medicine (Frumkin, 2001), developmental psychology (Kahn, 1997; Kahn & Kellert, 2002), architecture (Kellert, Heerwagen, & Mador, 2008) and environmental education (Moss, 2012). Thus, Wilson's biophilia hypothesis has received support from many disciplines and the search for a more solid evidence-base still continues.

### 2.1.2 Biophilia by Fromm

Although Wilson’s version of the biophilia notion got more attention, it was the psychoanalyst and sociologist Erich Fromm who first coined the concept. Fromm was a Freudo-Marxist and member of the Frankfurt School, who devoted much of his work on understanding the human-nature relations. Ryan Gunderson (2014a, 2014b) has revisited Fromm’s extensive work with a special attention to his biophilia notion. The following elaboration draws on Gunderson’s insights.

In Fromm’s version, biophilia is defined as “the passionate love of life and all that is alive; it is the wish to further growth, whether in a person, a plant, an idea, or a social group” (Fromm, 1973, p. 406). By being biophilic Fromm argues that a person can meet two inherent existential needs. The first is the need for self-preservation, the second is the need to overcome an ‘existential dichotomy’. The latter need is crucial to Fromm’s biophilia notion and requires more explanation.

The ability to self-reflect, which distinguishes humans from other organisms, causes humans to realize that they are unmistakably part of nature, yet rather different in this respect. Fromm (1947) argues that this experienced dichotomy between its self and nature makes humans prone to feelings of insignificance, lostness or meaninglessness. Developing a non-destructive unity with nature is argued to be the only way to overcome this existential dichotomy (Gunderson, 2014a). Thus, biophilia by Fromm is the capacity of human beings to love life that is needed to overcome its existential dichotomy.

Note that this human capacity for biophilia was seen by Fromm as a potentiality. This entails that for the expression of a potentiality favourable conditions need to be in place. Fromm (1973, p. 255) goes on to argue that potentialities actualize themselves in human’s character, “the relatively permanent system of all non-instinctual strivings which man relates himself to the human and natural world”. The formation of character is a complex development, on which society’s socioeconomic conditions are of great influence (Gunderson, 2014a)

Fromm also went one step further by raising the concept of ‘social character’. When the character traits of members of a group or society are taken together, Fromm thought it possible to identify its social character. Social character can be seen as the character structure that is shared by most members of a group/society and thus representative for that group/society. Furthermore, Fromm presented social character as the link between society’s socioeconomic conditions and the formation of ideologies. This in the sense that socioeconomic conditions mould social character and on its turn

social character organizes ideologies, and reversely, ideologies keep social character in place and social character reproduces socioeconomic conditions (Gunderson, 2014a). Gunderson (2014a) continues to state that “(Along with reproducing socioeconomic conditions,) social character provides group cohesion, a frame of reference, and solidarity. After a social character orientation develops, ideas emerge from this structure and individuals and groups become ‘naturally’ attracted to or repulsed by certain ideologies”.

A society where human’s potentiality to biophilia has actualized in most of its members would have a biophilous character structure. The biophilous member of such a society would love life and thus actively defends and supports growth in all that is alive, including other people. Fromm (1955) defined love as “the experience of union with another person, with all men, and with nature, under the condition of retaining one’s sense of integrity and independence”.

Where a successful expression of our capacity for biophilia will make us overcome our existential dichotomy, a failed expression and thus absence of biophilia in a human being has the opposite results. Fromm theorized that if the human-nature dichotomy will not be overcome, the consequential lurking feelings of futility will persist (Gunderson, 2014b). Furthermore, Fromm used the term necrophilia to describe the opposite of biophilia, the attraction to the non-alive, mechanical and was convinced that it results in the human indifference towards life (Gunderson, 2014b). In Fromm’s eyes contemporary society has a necrophilous character structure and a change towards a more biophilic society is needed to steer away from the current environmental destruction and ecological crisis. Gunderson (2014a, p. 188) elegantly summarised Fromm’s view by stating that “developing biophilia [is] the solution to both humanity’s existential need for unity and its current destructive relationship with nature.”

### 2.1.3 Comparison of the biophilia hypotheses

Wilson and Fromm come from two very different disciplines, evolutionary biology and psycho/sociology, hence it is not surprising that their versions of the biophilia concept are dissimilar too. Nevertheless, they also show some resemblance on a number of points. Both the differences and similarities between the two versions are discussed here.

As a result of their different backgrounds, Wilson’s version is deterministic of nature, while Fromm’s version has social constructionist aspects. Despite this fundamental difference, both theorists speak of an *innate* need for biophilia. For Wilson the innate aspect is explained by evolution. Fromm does not refute this hypothesis, but he puts the emphasis on the psychological dichotomy inherent to men as the explanation for the need for biophilia.

Even though the two versions of biophilia share an innate character, the hypothesised emotions related to the innate need to connect are again different. Where Fromm strictly abides to the positive feeling of ‘love’ for life in his explanation of *biophilia*, Wilson uses the word ‘affiliate’. For Wilson (1993), this affiliation to other organisms encompasses both positive as well as negative feelings, “from attraction to aversion, from awe to indifference, from peacefulness to fear-driven anxiety”. It seems that biophilia by Wilson is the evolution of an overall emotional attitude towards life, not just a loving attitude like Fromm argued.

Besides the shared innate character, both versions explain biophilia as a human capacity. Humans are hypothesised to have a predisposition to being biophilic. In other words, we are not born biophilic but we are born with the ability to become so. On the process of developing biophilia however, Wilson and Fromm have a different understanding. Wilson (1993) sees biophilia as any other form of complex behaviour and thus suggests it follows a complex set of learning rules. The behaviour will be

expressed when humans are exposed to the key stimuli. Which stimuli are key to develop biophilia is left open to further research. Fromm on the other hand, talks of favourable social conditions that need to be in place for biophilia to be expressed. He identified three of them: security, justice and freedom (Fromm, 1964). Only when a person experiences these three conditions would s/he be able to develop a biophilous character and express biophilia.

Also in both versions the expression of biophilia, being biophilic, is hypothesised to have a positive effect on human's mental health. Either, by overcoming an existential dichotomy and with that get divested of the feelings of lostness or insignificance, as Fromm (1947) hypothesises. Or, by fulfilling an existential need and be able to develop to full potential on emotional, spiritual, aesthetic and cognitive levels, as Wilson and Kellert (1993) hypothesize.

A consequence of both versions hypothesizing that biophilia will fulfil an existential need is that they both also express an environmental ethic. Fromm argues for the necessity of forming a non-destructive unity with nature and Wilson argues a diminished environment leads to diminished existence. They both basically theorize that a more biophilic society would result in an ecologically sound society and thus a healthy natural world, which is what our existence depends on for more than material reasons.

Either way, following Fromm or Wilson, the biophilia hypothesis can be seen as an argument for the necessity of a human's connection with nature, as well as an explanation why a person would seek a connection with nature. It suggests the existence of an underlying innate existential need.

## 2.2 Interaction Ritual Chains

The second theory that will be applied in this thesis and combined with the biophilia notion (chapter 2.3) is the Interaction Ritual Chains theory of the sociologist Randall Collins. In his book *Interaction Ritual Chains* (2004), Collins explains how interactions between people are rituals and how chains of rituals can come about. Much of his work is built on the works of two micro-sociologists, on Durkheim's foundations of ritualism (1912) and Goffman's interaction ritual (1967).

### 2.2.1 Situations and rituals

The first thing that is important to understand about Collins' interaction ritual chains is that 'the situation' is taken as a starting point and plays the leading role throughout the theory. Whereas in everyday life we tend to turn to the individual when we are trying to define what makes this person who he/she is or why he/she is acting in a certain way, in micro-sociology it is the situation that is looked at to find the answers. It is not the individual that makes a situation, but the situation (and all the situations before) that make the individual. This line of thinking accounts for the leeway of an individual to change at every new situation encountered. It also makes it possible to look for the mechanism of change within the situation (instead of the individual). This is what IR theory is about, finding out under which conditions happens what during the interaction of individuals.

This way of focusing on the situation, the (ritual) interaction between people, the micro can seem to have no eye for the bigger picture. However, Collins is convinced that 'the bigger picture' has no other origin than the micro and studying the micro can tell a great deal about what will transcend to the macro, to culture. This will become more clear when explaining the role of 'emotional energy'.

The second key aspect that is in need of some clarification is the word 'ritual'. In everyday life a ritual is the series of actions performed in a specific order, often with a religious touch to it, a ceremony. In this micro-sociological theory however, the term ritual is used in a much broader fashion. Any kind of interaction between individuals is seen as a ritual, as long as there is a mutual awareness, and like

the term micro-sociology suggests these include the smallest of communicative exchanges. These encounters or rituals between individuals are the centre of focus in IR theory and it conceptualizes when a ritual is repeated (in other words, successful) and becomes a chain or when it is not. Collins has modelled the ins- and outputs that pertain to a successful ritual (figure 1).

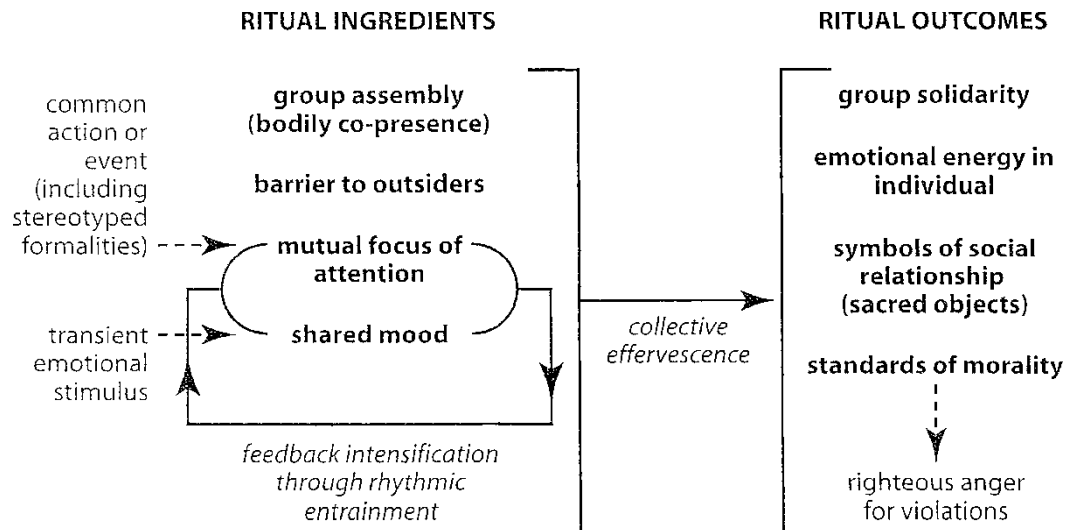


Figure 1: Model of the interaction ritual (source: Collins, 2004)

This model gives some practical factors to look for when studying ritual chains. Studying rituals following this theory makes it possible to determine why and how one thing will happen in one social situation rather than another. The concepts presented in this model will be discussed in more detail later on.

After having seen Collins' model, his definition of a ritual speaks for itself: "a mechanism of mutually focused emotion and attentions producing a momentarily shared reality, which thereby generates solidarity and symbols of group membership" (Collins, 2004, p. 7). For the purpose of this thesis, however, the in- and outputs of a (successful) ritual need further elaboration, starting with 'emotional energy', as in my interpretation it plays the most important role in ritual interactions.

### 2.2.2 Emotional Energy

Unlike other micro-sociological theories the IRC theory gives emotions a prominent place. Many facets of the model presented above are (in fact) emotions. It is the change of emotions within or from one situation to another that makes or breaks a ritual chain.

Collins makes a distinction between situational short-term emotions and enduring long-term emotions. The short-term emotions are the ones we often talk about in everyday life, joy (effervescence), sadness, fear and anger. Collins also refers to the short-term emotions as dramatic emotions. Long-term emotions then, are the more on the background residing emotions. Depression (as a long term mood, not necessarily the disorder) is one easily conceivable example, as is happiness, but these are just the ends of a spectrum. Collins stresses that also between these two extremes lie emotions. They are often overlooked as they are the emotions when things are normal, when in general nothing is out of the ordinary.

The term Emotional Energy (EE) that Collins introduces, refers to this spectrum of long-term emotions. An individual's EE can be high or low or somewhere in the middle, for instance a person



feeling depressed might feel like not able to do much and can then be said to have a low EE. High EE corresponds with feelings of confidence, taking action, initiative, motivation or enthusiasm.

An individual brings EE into a situation and can also get or lose EE from a situation, depending on whether the ritual is successful or not. Ritual situations can thus change an individual's EE in both ways. In Collins's IR theory it is the search for high EE that drives us, makes us move from one situation to another. Situations where an individual experiences a low EE, failed rituals, are not repeated. The situations that charges an individual with EE, successful rituals, are attempted to be repeated and if it continues to give EE the ritual is kept up and becomes a chain.

Exactly what kind of situation leaves an individual with a higher EE, can be different for each individual, depending on their experiences in previous situations. Nevertheless, the model describes the hypothesized ingredients and outcomes in every successful situation, no matter what individuals or kind of situation.

### 2.2.3 Ritual ingredients and outcomes

Collins identified the conditions that are (need to be) in place when a successful ritual occurs, in which Emotional Energy plays a part, as has just been explained. Now we will go through the rest of Collins' model with its ingredients and outcomes. The first of the ingredients that is necessary is the assembly of individuals. A group of people (of two or more individuals) need to be bodily present, for it are the micro-interactions between the individuals that make the ritual. Secondly, this group needs to see the distinction between who is part of the group and who is not, hence there are barriers to outsiders.

Then, a shared mood and a mutual focus of attention need to be present. This mood refers back to the EE that each individual has and brings into a situation. The participants of the situation need to share a common mood. Also, the participants should share the same point of focus, thus the same act, person, object, subject or something the like. This focus is enhanced when the individuals become aware of their mutual focus of attention. It is also enhanced when their mood is highly shared and on its turn the shared mood enhances the mutual focus of attention. There exists a positive feedback loop between these two conditions.

These ingredients together instigate what Collins, and Durkheim (1912) before him, called 'collective effervescence'. It is the momentarily shared excitement during the situation. This emotion is a stepping stone, since the only momentary collective effervescence can turn into longer lasting sentiments, the ritual outcomes.

Group solidarity is one of these outcomes. By having shared a situation with a high mutual focus and mood a sense of belonging to that group of individuals can occur. The individual's self-identity has changed and a unity has formed. Furthermore, the collective effervescence can be stored in objects, words or persons, anything the group was focusing on. These sub- or objects get charged with the experienced excitement and become the symbols of the group. The charged symbols prolong the high collective effervescence over time and space. They remind the individuals of the situation and the group.

Also, with the formation of a group standards of morality arise, "the sense of rightness in adhering to the group, respecting its symbols, and defending both against transgressors" (Collins, 2004, p. 49). Furthermore, the experience of emotional energy is a ritual outcome. As explained, this too is a more long-term emotion, a feeling of excitement and motivation, and the drive that makes us move from one situation to the next. As a result, individuals that have experienced a successful ritual will try to

return to similar situations, as this ritual charged them with emotional energy. A ritual chain emerges. These chains are what makes individuals become (seen as) a friend, a fan, a member, a follower or anything the like. Note that this theory provides a possible explanation for variations in the strength of someone's belief/connection/solidarity with the object/subject of focus. It depends on the situation if a high EE is experienced or not.

Collins mentions the importance of the frequency with which a ritual is repeated for a chain to hold up. The excitement of a successful ritual gives emotional energy, but this excitement does not last forever. It wears out after some time. A chain of rituals breaks when the ritual is not repeated before the excitement has worn out. As mentioned before, symbols can carry and prolong the excitement of a ritual and thus can play a vital part in holding up chains for a longer period of time.

## 2.3 Combining Biophilia and IRC (NIRC)

To study the ways in which experiences with the natural environment, in this case visiting a nature festival, can have an effect on people's connection with nature, a comprehensive conceptual framework is sought to construct. Therefore, both explained theories are brought together to form a single close-fitting structure.

The biophilia hypothesis will function as a foundation. Based on the biophilia hypothesis the assumption is made that humans have an innate need to seek a connection with all of life. The use of this base has an effect on the scope of the IR theory. It entails a significant shift in the focus of the theory away from the sole interaction with people to include the interaction with nature. The resulting Nature Interaction Ritual Chains (NIRC) model will then provide the possible mechanism behind the manifestation of the human connection with nature.

### 2.3.1 Nature in IRC

The combination of the two theories tries to account for the possibility to have an encounter with nature resulting in the same outcomes as a social encounter would. The resulting model is that not only the interaction with other individuals can be rituals and become chains, also the interaction with nature can.

But what do we mean by nature? If we were to strictly follow Fromm or Wilson's biophilia hypothesis then the NIRC model would be based on 'love of all life'. In other words, the love for other organisms. Love for non-living nature is not included in their hypothesis (bio = life). The NIRC model however does not intend to limit the interaction with nature to the interaction with living organisms.

Here the hypothesized theory parts somewhat from the biophilia hypothesis. Instead of a possible 'love for life' a 'love for nature' is thought to be possible and forms the foundation of the NIRC theory. Nature would then include all living things as well as non-living natural materials and the more abstract aspects (as scenery, decor, source of inspiration). Nature here would mean everything that can be perceived as nature, or better put, nature as it is perceived by the experiencer. The experience of nature by the individual is key. The question 'what is nature?' is not that important, but 'is nature experienced?' is. The definition of nature is left open for the individual experiencing the situation.

Following Collins' approach, a model, somewhat similar to the IR model, can be made depicting the ingredients and outcomes of a successful interaction (ritual), but in this case a nature interaction (figure 2). The presumed necessary ingredients are the 'presence of nature', 'focus of attention' on

nature (and the 'entrainment' with nature). The outcomes of a successful nature ritual are the same as in a social ritual, but with nature at the centre of attention. It results in solidarity with nature, emotional energy from nature, nature symbols and standards of morality regarding nature.

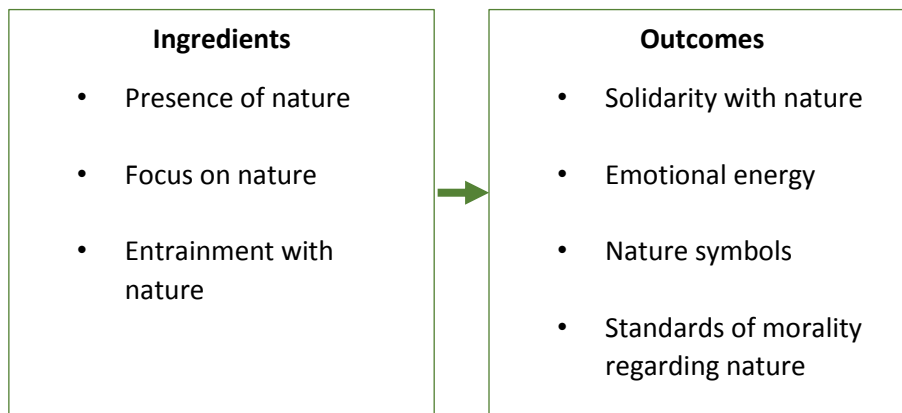


Figure 2: Model of the nature interaction ritual

In this model emotional energy still plays an important part. It is still the fuel that gets individuals from one situation to another and a successful situation (re)fuels us with it. However, here not only do interactions with other individuals fuel us also interactions with nature do. This even entails that an interaction with nature in solitude is hypothesised to possibly give us emotional energy. Also if during this encounter with nature the individual experiences high emotional energy a ritual chain might manifest and situations in nature are revisited.

### 2.3.2 Connecting with nature

As already mentioned before, the Biophilia hypothesis is taken as a starting point for this study's theoretical framework. To be able to work with this hypothesis, this study settles for a definition of Biophilia, which highlights the aspects the two earlier explained versions have in common. Thus, Biophilia here, comprises the innate existential human need and ability to connect with nature (as explained above 'nature' instead of 'life'). Where a failed expression of this ability would result in a diminished life and a careless attitude towards nature, at the expense of nature.

The presumed innate existential need to closely relate to nature can be seen as the initial drive that activates us to interact with nature. From this initial drive forward the mechanism of IRC is used to explain the ways in which the connection with nature manifests. Here it is hypothesized that after experiences of a high emotional energy during situations in nature the individual will want to return to same kind of situation, return to nature. A nature ritual chain will develop, this is seen as the manifestation of a connection with nature in the sense that the individual is in solidarity with nature, respects standards of morality and outrages when these standards are violated. A sense of unity with nature establishes. Just like we can with other individuals it is thought that through these chains we can become a friend, a fan, a member, a follower or anything the like, of nature. It can be seen as Biophilia in its expressed form.

Also if the situation to interact with nature does not occur, there is no chance for the individual to experience a high emotional energy and establish a connection. The need and ability to be biophilic and care for nature remains confined. Thus, experiencing nature is key in this line of thought.

The schematic representation of this study's conceptual model is shown in figure 4.

### 2.3.3 NIRC in context of Fête de la Nature

Besides coining the NIRC model, this study also sets out to apply it to the case of Fête de la Nature to understand the ways in which the festival can contribute to the participants' connection with nature. In order to do so the model needs to be operationalized, which will be done in this chapter.

From the NIRC model's point of view, Fête de la Nature is seen as providing the situation where an individual can interact with nature. In short, it is hypothesized that when the ingredients for a successful interaction (presence of nature, focus on nature and entrainment with nature) are present at the festival, the participants will experience the outcomes (high emotional energy, solidarity with nature etc.) and they will want to return to nature (which can be to the festival next year, but also to other, somewhat similar nature experiences). It is thought that through this arisen chain a connection with nature manifests, which results in a non-destructive way of interacting with nature. Note that the theorized outcome works well with the goal of the festival, which is to gain a higher support for nature conservation.

However, because this research is a single measurement in time (one festival visit), the theorized outcomes like solidarity, standards of morality, symbols or a connection with nature can hardly be determined, let alone a change in behaviour towards nature. Besides, there are many possible ways to express solidarity with nature. This does not necessarily need to be limited to 'green' behaviour, like energy saving, eating vegetarian/organic, separating waste, being a member of nature/environmental organization etc.

The current study takes place in too small of a time span to see any changes in this respect. Therefore, this research focuses more on the ingredients (and outcome in terms of emotional energy), that are thought necessary for a connection to manifest. It looks at whether these assets are present, to what extent and how they are related to each other. In a more general way of putting it, this research mostly looks into the experiences participants gain at the festival, and only in a very limited way investigates what happens after the festival.

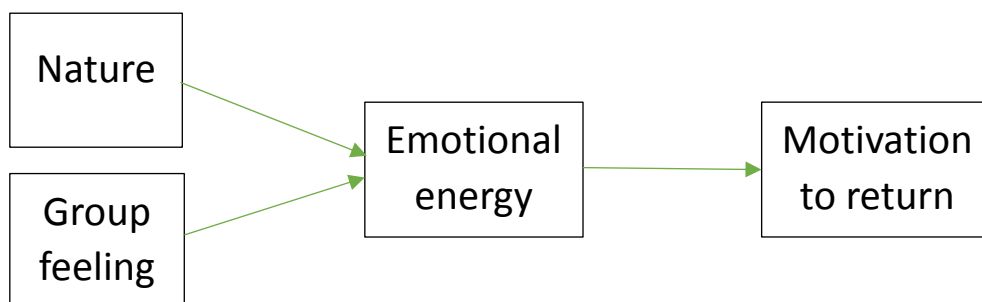
There are four major themes that are used to carry out (and structure) the research. These are: nature, group feeling, emotional energy and motivation to return. The first theme, 'nature', is an attempt to conceptualize the theorized necessary ingredients of a nature interaction (presence of nature, focus on nature and entrainment with nature) into one single more operable concept. This theme is concentrated around the question of whether or not participants of the festival experienced nature and if so to what extent.

The second theme, group feeling, is included because the interaction with other people is also of importance to the festival. Since this study stays in line with Collins' IR theory, also this group interaction is expected to have a positive influence on the experienced emotional energy and the motivation to return. In this research the concepts that are at play in the interaction between individuals in Collins' theory (group assembly, barriers to outsiders, mutual focus and a shared mood), are compiled into the single concept 'group feeling'.

Emotional energy is considered the only somewhat measurable outcome of a successful nature interaction after experiencing a single nature situation. This study makes an attempt to determine the gained emotional energy by either experiences with nature or group feeling during the festival.

Finally, the participants 'motivation to return' to next years' festival is seen as a representation of the manifestation of a chain. It is the precursor of the theorised outcome, the connection with nature

and with that care for nature. A schematic representation of the conceptual framework in context of the Fête de la Nature is presented in figure 3.



*Figure 3: Schematic representation of the conceptual framework in the context of Fête de la Nature*

### 2.3.4 Conceptual model

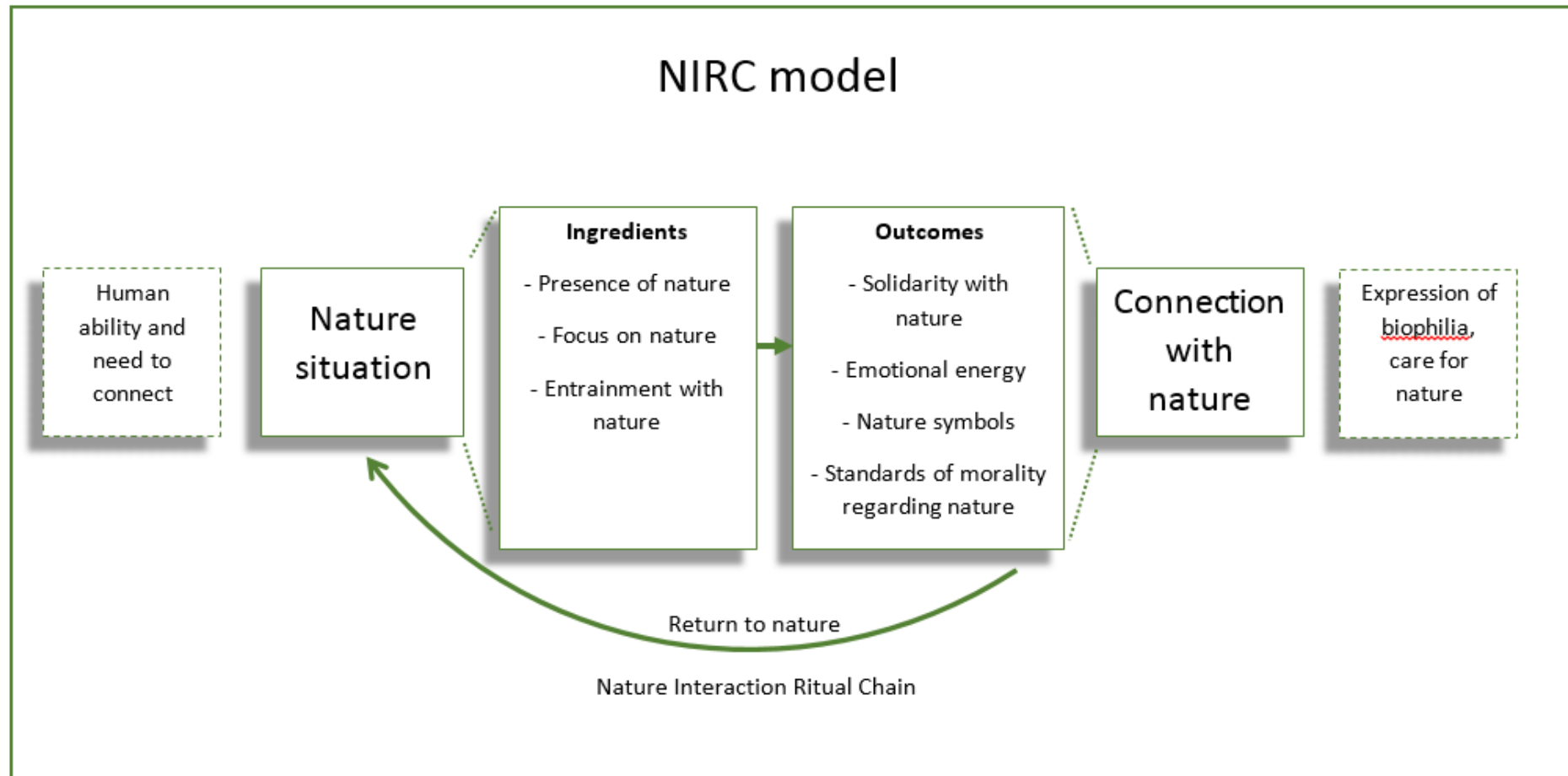


Figure 4: Schematic representation of the conceptual framework; the Nature Interaction Ritual Chain model

### 3 Methodology

In this study a diversity of methods will be used and multiple sources tapped. The nature festival Fête de la Nature serves as a case to study the ways in which encounters with the natural environment can have an effect on people's connection with nature. During the festival participants (children and adults) will be surveyed, by means of questionnaires, and a few weeks after the festival a selection of participants will be contacted for a follow up interview.

This mixed methods approach will ensure a versatile insight in the experiences gained through the festival. By linking the quantitative data from the surveys and the qualitative data from the interviews with the coined NIRC theory, the ways in which the festival could have an impact on people's connection with nature will be studied in an integral way. A description of the festival, methods and analysis is given below.

#### 3.1 Research object

The Dutch Fête de la Nature was initiated by Stichting NatuurCollege and first organized in 2014. Since then it has been organized once a year on the third weekend of May. Its set-up is slightly different from its origin, as the activities are organized by whoever wishes to do so instead of only nature organizations. In the Netherlands the organizers consist out of nature organizations and companies but it mainly comes down to citizens. The festival thus has and tries to extend a distinctive grass-root character, meaning it is build-up from below by citizens for citizens. The goal of the festival is to get people interacting with nature and each other, in the anticipation of creating more support for nature conservation.

Hence, the only criterion the activities of the festival need to meet is that they are nature related. This results the activities to range from outdoor yoga to working with sheep wool or from nature painting to a forest walk with a ranger. The festival has its own website where all the signed up activities can be found. An interactive map shows where the activities are located and each activity has a small description of what it entails and optionally shows to whom it is suitable (children, adults, everyone) or where to find more information. The organizers of activities can find tips and tricks for the promotion of their activity on the website (and can receive a big flag with the logo of FdIN (figure 5) when they have signed up).



Figure 5: Logo of Fête de la Nature

The festival has no specific focus on a certain target audience, everyone is welcome. However, it does put the emphasis on reaching the people that do not yet have a connection with nature.

This study took place during the fourth edition of the festival. Approximately 300 activities signed up and were spread across the whole country as shown in figure 3. The activities took place on two dates, May the 20<sup>th</sup> and May the 21<sup>th</sup>, which is indicated on the map by respectively a blue or red sign. This year's edition drew roughly 64.000 participants.

#### 3.2 Data collection

For this research two methods were used to collect qualitative as well as quantitative data. During the festival surveys were conducted, which targeted both adults and children. From the total of 187 completed questionnaires 150 were adult questionnaires and 37 child questionnaires. Two adults



had received and filled in the wrong version (a child questionnaire), therefore these were excluded and so 35 completed child questionnaires remain. The questionnaires were conducted at 17 different activities indicated on the map in figure 6; a short description of the different activities is presented in table 1. In total 6 conductors collected the questionnaires. After the festival eight semi-structured interviews were conducted with adults that participated.

### 3.2.1 Participant survey

Two different versions of participant questionnaires were made. One suitable for adults and one specially designed to be amenable for children between the age of 7 and 12. Both questionnaires are mainly quantitative. In the adult version a set of 21 five-point Likert items are used, the remaining seven questions are either multiple-choice (5) or open questions (2). In the child version 11 three-point Likert items are used, the remaining six questions are again either multiple-choice (3) or open questions (3). This survey aim to gain insight in the extent to which participants experienced nature, group feeling and emotional energy during the festival and to what extent they are motivated to return. The survey will also provide insight in a few other aspects of the festival, the activities and the participants. The selection of activities at which questionnaires are conducted is based on preference of and practicality for the conductors. The selection of participants was random, there was no specified group of participants targeted. Any child or adult at an activity was asked to fill in a questionnaire. Nonresponse bias is ruled out, as during the collection of questionnaires most (the high majority of/nearly all) approached participants were willing to fill in a questionnaire. An example of both the adult and child questionnaire is included in appendix A and B.



Figure 6: Map of all signed up activities during the fourth edition of the Dutch Fête de la Nature. The green dots represent the activities where questionnaires have been collected.

### 3.2.2 Interviews

Within two months after the festival a number of participants were interviewed to gain an even deeper understanding of their experiences during the festival. Also some insight in the motives and expectations was gained. This was done by means of a semi-structured interview containing only qualitative questions. The average length of the interviews was 30 minutes. A group of 26 participants indicated on their questionnaire that they were willing to be interviewed. Eight of these 26 participants responded positively to the official interview invitation and were available during the proposed dates. Thus, the selection of the participants was purely based on practical considerations:



all participants that were willing and available were interviewed. Of these eight interviewed participants two went to the same activity, the other six all went to different activities.

### 3.3 Analysis

As explained above, both quantitative and qualitative data were collected with the surveys. Additionally, a statistical analysis was done with the survey results to quantify and identify the relationships between the four researched variables (themes): 'nature', 'group feeling', 'emotional energy' and 'motivation to return'. This quantitative analysis was only possible for the adult survey, the sample size of the child survey was too small ( $N = 35$ ). Thus, four Likert-scales were constructed out of 10 of the adult Likert items, representing the four subjects. The reliability of these four scales was analysed using the Cronbach's alpha (Cronbach, 1951). For the value of each scale the median of the combined values of the items in that scale was used. Correlations between the scales were analysed using Kendall's tau (Kendall, 1955). This type of correlation analysis was done because of the relatively small sample size ( $N = 150$ ) and large number of tied ranks. To further quantify and identify the relationships between the four subjects a path analysis was done by means of two regression analyses. All quantitative analyses were done using IBM SPSS statistics version 23.

The interviews were recorded, summarised and scanned for relevant answers that would support or dispute results from the surveys. These answers are presented in chapters 4 and 5.

*Table 1: List of the 17 activities where the survey was done*

Activity	
1	A guided walk through a city park
2	Diverse activities at an environmental education centre
3	Playfully collecting and sorting trash from the beach
4	Music and poems at a Nature stage
5	Excursion to the 'Zandmotor'
6	Screening of a nature documentary in nature
7	Conscious walking
8	A guided walk through a 'heemtuin'
9	Canoeing
10	Searching for little water animals
11	A guided walk through a city allotment complex
12	Festive opening of a nature area
13	Diverse activities in a city park
14	Festive open day of an outdoor school
15	Parade through a city
16	Canoeing and screening of a movie
17	Church service about nature

## 4 Participant background and recruitment

This chapter gives some background information on the studied participants, followed by the findings on recruitment related topics. Note that the results of the adult questionnaires will be shown in percentages while for the results of the child questionnaires frequencies are used.

### 4.1 Participant background

#### 4.1.1 Survey

The largest group of participants who filled in a questionnaire (adults and children) is between the age of 40 and 59 (33.5%). About 38% of the participants is younger than 40 and about 20% is 60 years or older (figure 7). The children who completed the child questionnaire were between the age of 4 to 15, 7 years old being the most frequent age (figure 8).

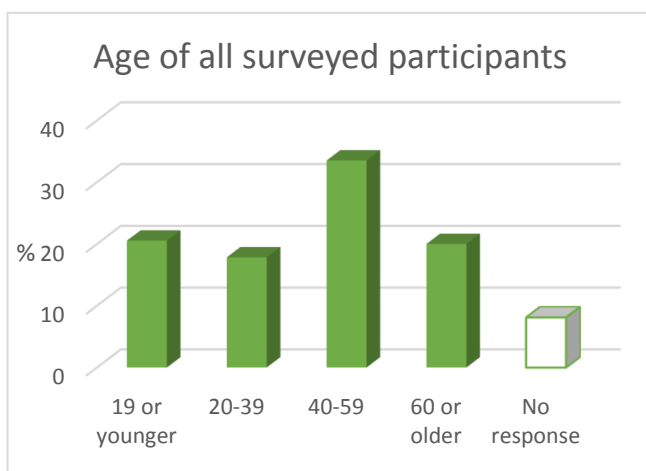


Figure 7: Percentage of participants per age category, N=185.

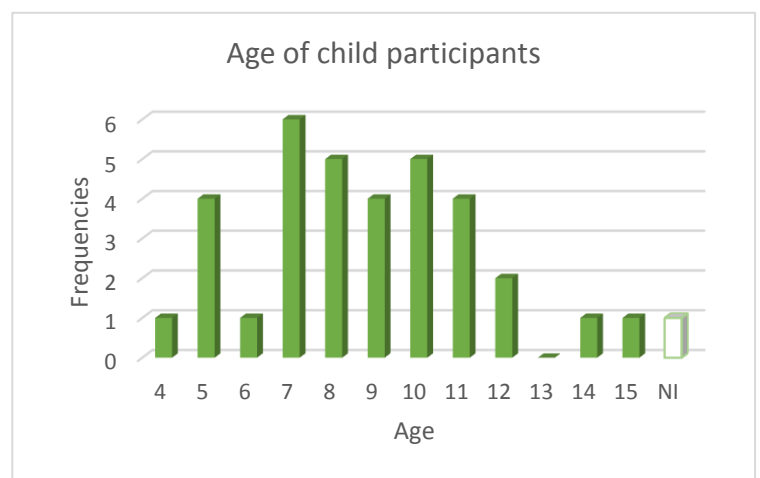


Figure 8: Frequency of children per age, N=35.

Among the adults a little less than 50% is a member of an organisation that is committed to nature or the environment (figure 9). When compared with the age of the adults it becomes clear that in the two older age categories roughly an equal amount of adults were a member of such an organisation as there were not (figure 10). However, in the two younger age categories a little less than half of these participants were members. (It has to be noted that for the age category '19 or younger' this means that out of the in total 3 participants 1 was a member.)

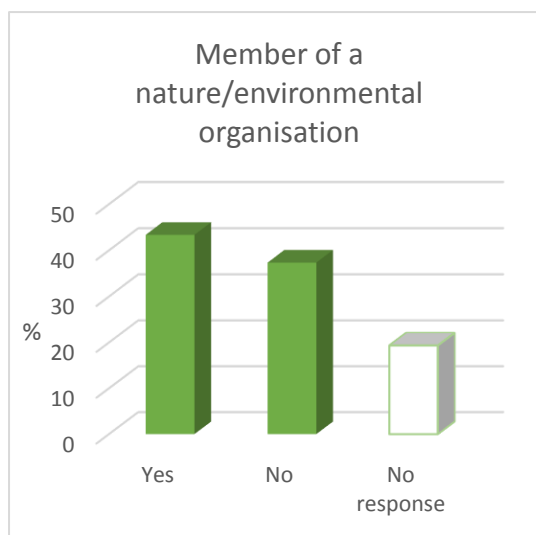


Figure 9: Percentage of adults that are/are not a member of a nature/environmental organisation, N=150.

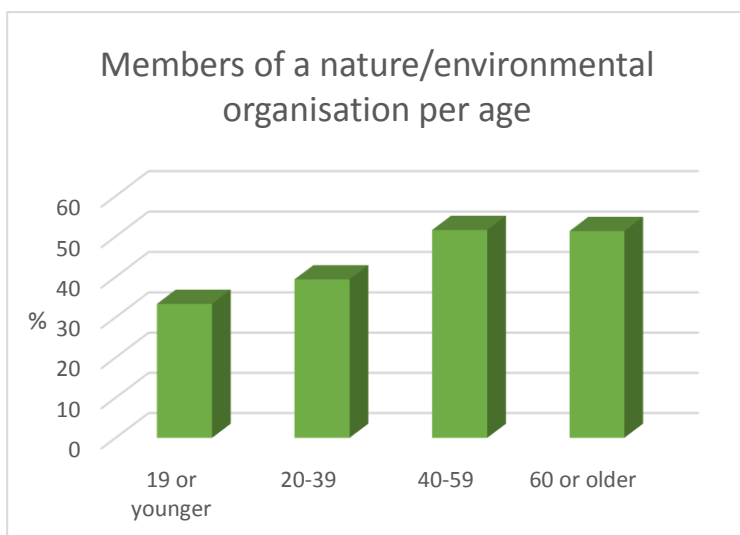


Figure 10: Percentage of adults that are a member of a nature/environmental organisation relative to their age.

#### 4.1.2 Interviews

The age of the eight interviewed participants ranged from 31 years old to 71 years old. Most of these participants went to a different activity, yet two interviewed participants visited the same activity (Participants 1 and 4, the guided walk through a city park). The interview contained some personal background questions on which an evaluation was made whether these participants were either very interested (++), somewhat interested (+-), or not interested (--) in nature and if they were from a young age. Most interviewed participants were interested in nature, also already from a young age. All this background information is summarised in table 2.

Table 2: Background information on the interviewed participants.

Participant	Age	Activity participated	Interested in nature	Often in nature at young age	Member of a nature/environmental organisation
1	34	A guided walk through a city park	++	++	Yes
2	52	A guided walk through a city allotment complex	++	++	No
3	31	Diverse activities in a city park	++	++	Yes
4	55	A guided walk through a city park	+-	--	No
5	71	Playfully collecting and sorting trash from the beach	++	+-	Yes
6	70	A guided walk through a 'heemtuin'.	+-	+-	Yes
7	53	Screening of a nature documentary in nature	++	++	Yes
8	33	Festive open day of an outdoor school	++	++	Yes

## 4.2 Recruitment

### 4.2.1 Survey

The vast majority of the participants visited the festival for the first time. For 70% of the adults it was the first year they participated and 23 of the 35 children said they had not participated before (figure 11 and 12). In total 18 adult and 7 child participants had participated at least once before.

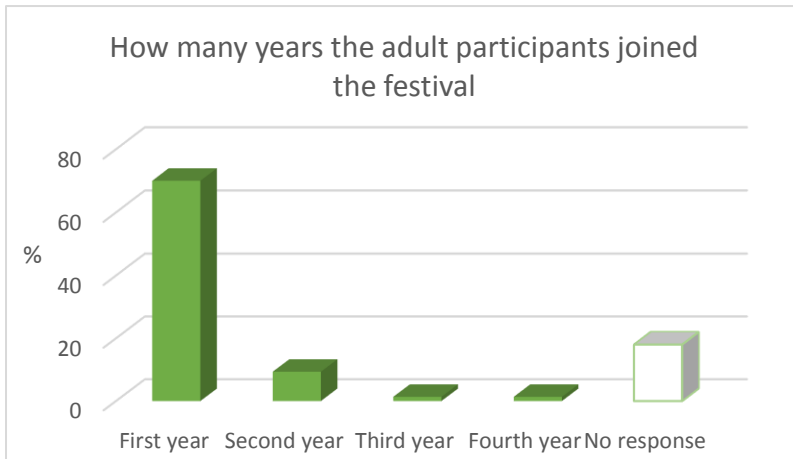


Figure 11: Percentage of adults that participated for the first, second, third or fourth year, N=150.

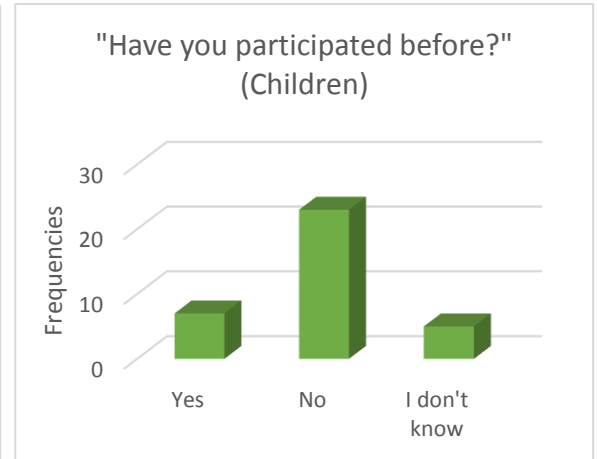


Figure 12: Number of children that already participated before, had not participated before or did not know if they had.

A statement was presented concerning the awareness of the respondent about the activity being part of Fête de la Nature (figure 13). 59% of the respondents agreed or highly agreed with the statement "I was aware that the activity was (also) organised in the context of Fête de la Nature". Of the adults 26% stated they were not aware and 13% stated they were neutral to the statement. With this statement it is likely that the respondents who answered 'neutral', meant that they did not know about Fête de la Nature.

Also a question was asked to see by what means the participants knew about the activity. They could tick multiple answers and fill in their own answer when the given options were not pertinent. The results given in figure 14 show the percentage per ticked option based on the number of respondents, which was 122 for this particular question. (The accumulated percentage of all the options will be more than 100% as multiple options could be ticked). The darker green bars show the given options, the lighter green bars show the categories that could be made from what people filled in themselves.

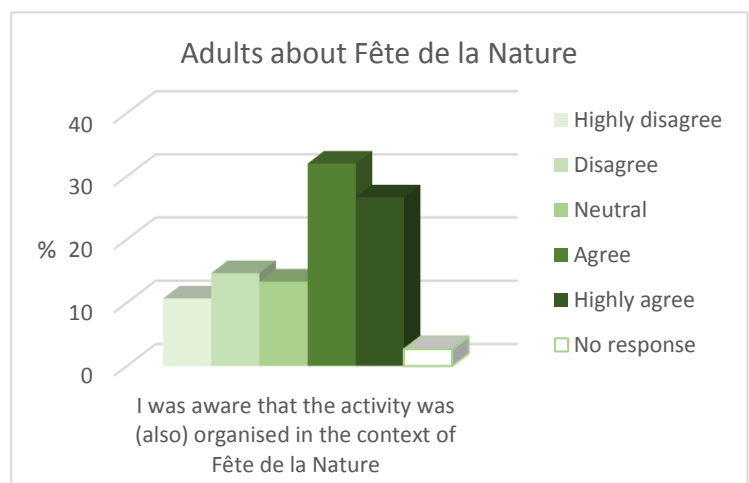


Figure 13: Awareness of adults of Fête de la Nature, N=150

Nearly 35% of the respondents knew about the activity from friends or family. The second largest group, 20%, knew about it by means of local media. 15% didn't know about Fête de la Nature, but knew about the activity by other means or happened to be at the activity by coincidence.

(Note: The original question was: “How did you know the activity was part of Fête de la Nature?” (“Hoe wist u dat het een activiteit van Fête de la Nature was?”), but it was interpreted differently. Figure x shows that 26% of the people didn’t know that the activity was part of Fête de la Nature, but more than this percentage did fill in this question. Showing that many people knew about the activity, but just didn’t know it was part of Fête de la Nature, and they interpreted this question as “How did you know about this activity?”.)

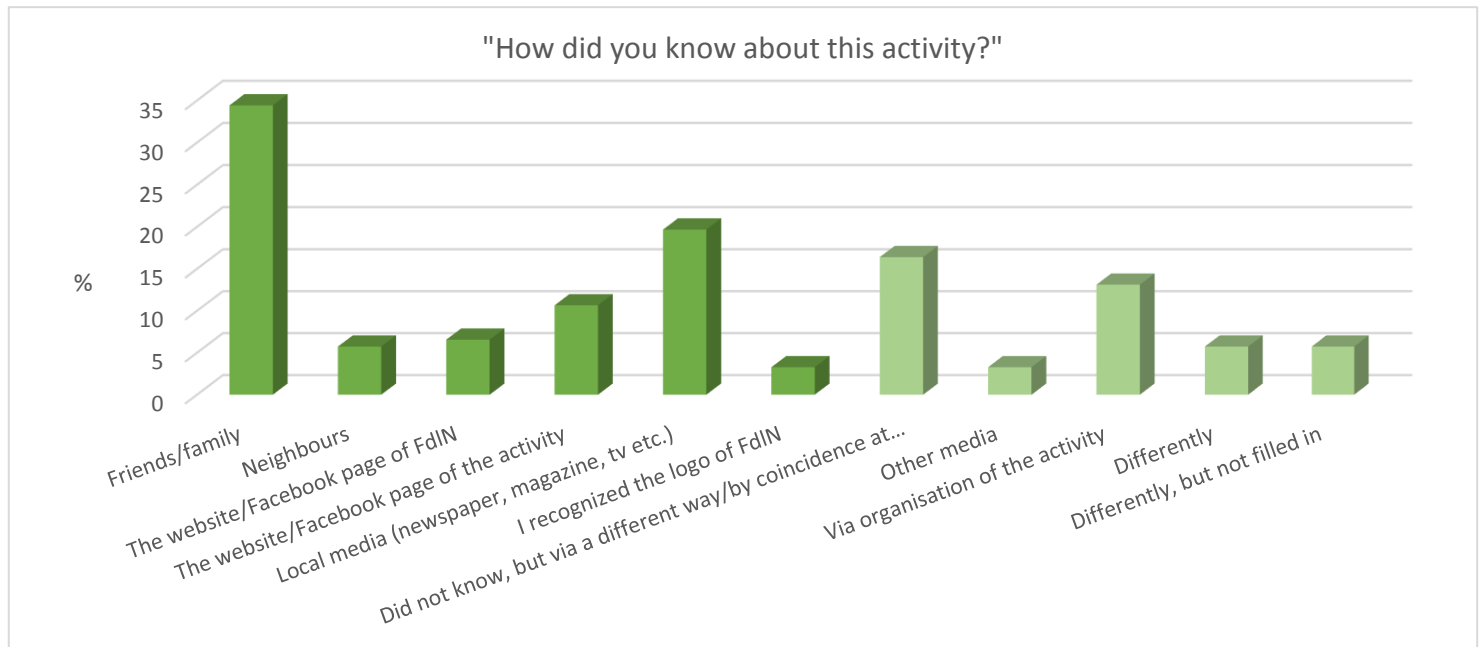


Figure 14: Percentage of adults per channel. Multiple options could be ticked, N=122.

#### 4.2.2 Interviews

During one of the interviews the topic of different kinds of social media was raised by the participant when asked about possible improvements of the festival. The participant started talking about how the internet is a ‘cold’ medium.

*“You could say, it is a cold medium [the internet]. It costs a lot of energy to give a cold medium a warm core. The theatre is warm, the painter is warm, gardening is warm. It is direct, but here a filter, a screen is in between.” (Participant 2)*

He noted that to get people warmed up (a Dutch expression?) for an event a warm medium is needed. This seems to correspond with the results from the adult questionnaires as the majority of participants knew about the activity through a direct, ‘warm’ medium (friends, family or neighbours).

In this same way the local media (local newspaper, magazine, tv etc.) could possibly also be experienced as more direct and thus more ‘warm’ media then the internet based ones, as this formed the second most used group of media.

The point this participant made about the differences in media in combination with the results on how the participants knew about the festival, could be of relevance for next year’s edition, as will be discussed later on (Chapter 7). Also how this view on direct and indirect media is in line with Collins’ IRC theory (2004) will be discussed.

## 5 Festival experiences and image

In this chapter the experiences the participants gained at the festival will be presented on the basis of several topics. Among them are the four themes that are related to the hypothesised theory of this research: nature, group feeling, emotional energy and intention to return. The remaining topics include adult experiences with children and the participants' image of the festival. Both the results from the survey as well as the interviews are presented. Also here, for the results of the adult questionnaires percentages are used while the results of the child questionnaires are shown in terms of frequencies.

### 5.1 Experiences related to nature

To get an idea of the extent to which participants experienced 'nature' at the festival, both the adult and child questionnaires contained two nature related Likert-items. Also the interviews provided some more in-depth insight in the nature experiences.

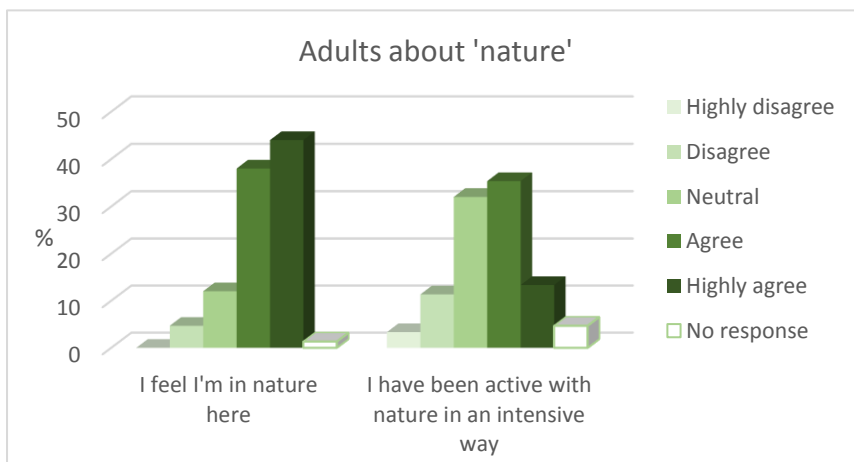


Figure 15: Response of adults on two statements about 'nature', N=150.

half of the respondents agreed or highly agreed (48,6%). The results of both statements is shown in figure 15.

Likewise, the children responded very positive to the two statements about nature too (figure 16). Both the statements "I have been in nature a lot today" and "There are many plants and animals here" were deemed true by the great majority (25 and 29 times respectively).

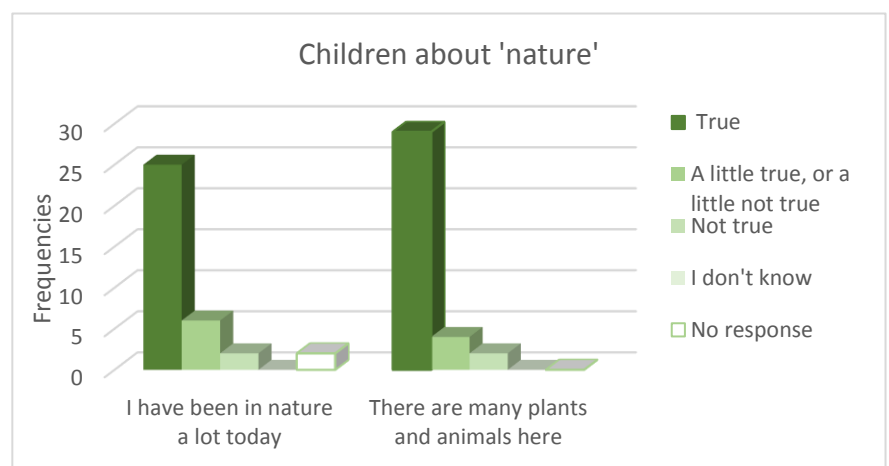


Figure 16: Response of children on two statements about 'nature', N=35.

#### 5.1.1 Survey

The adults responded very positive to the statement "I feel I'm in nature here" ("Ik voel me hier in de natuur"). Over 80% of the respondents said to either agree or highly agree with the statement.

The response on the statement "I have been active with nature in an intensive way" ("Ik ben op een intensieve manier met de natuur bezig geweest") is a bit less positive as 32% said to be neutral, but still

### 5.1.2 Interviews

The results from the interviews support the findings from the survey. Also in the cases where the activity was situated in a city, nature could be experienced, as two of the interviewed participants empathetically pointed out:

*“It actually was a very beautiful oasis, in the middle of the city like that, with many old trees and uhm... I thought, well I can very well go for a walk here more often.” (Participant 1)*

*“It really is a piece of nature. It is in the city, but you have the feeling it is outside. You don’t have the idea that it is in the city.” (Participant 6)*

Participant 1 went to a guided tour in a city park in Den Haag and participant 6 to a guided tour in a ‘heemtuin’ in Zaandam. However this does not always have to be the case, as one participant implied that a nature experience is negatively influenced by having a city at close range.

*“This is an allotment complex, that is... well yes that is nature, but it is next to the city, so you have a lot of sounds, traffic and pollution.” (Participant 7)*

Besides the possible negative influence of a nearby city, one participant explained that the nature experience was negatively influenced by the amount of people that were present (who were not involved in the activity). This participant joined the activity of collecting trash on a beach.

*“I did not have much of a nature feeling at that beach there, because it is very busy. [...] When all these people are lying there, then I don’t think it is nature anymore. So, I think that too many people take that nature experience away.” (Participant 5)*

This participant was one of the few of all surveyed participants that did not agree to the questionnaire statement “I feel I’m in nature here”. (At the same time this participant was the only one of the interviewed participants to state to have been very active with nature in an intense way. This is not surprising as the activity involved actively cleaning a beach.)

But, even though the majority of the participants collectively agreed that they experienced nature during the activities, their opinion on what nature actually is differed greatly between the interviewed participants.

The interview did not contain a question about the definition of nature (it left this open for everyone to have experienced their own nature). Nevertheless this topic often came up during the conversations. The difference in opinion went as far as one participant saying that everything is nature to another saying nothing in The Netherlands is nature.

*“I actually think everything is nature, so I’m always in nature.” (Participant 2)*

*“Well, actually nature is something humans did not uhm... of course you don’t have that in The Netherlands. All the forests here are planted by us. [...] But yeah, the animals don’t mind, so I won’t make it a problem either.” (Participant 4)*

Furthermore, that the appreciation for nature can exceed merely the living aspects and includes non-living and abstract elements can be illustrated by the following quotes:

*I think I mainly have a decorative image of nature. I’m not really the person who is into animals and plants. [...] I greatly appreciate nature mainly for its tranquillity, relaxation and the inspiration it gives. (Participant 3)*

*“You could say ‘is this [a playground] nature?’, but yes for me it actually is. It might be nature in the city, but they get to play with sand and water. (Participant 5)*

(Note that the last quote here belongs to the same person that was one of the few not to feel in nature during the festival. The playground was where the interview was held.)

What all of these comments mainly show is the diversity in how nature can be experienced. Perhaps it also shows how talking about a nature experience after some time has passed can result in a different opinion on the initial nature experience. Where participants first said to have been in nature (during the festival), doubts arise on what nature actually is afterwards.

## 5.2 Experiences related to a group feeling

The extent to which a ‘group feeling’ was experienced, was assessed through three adult Likert-items and two child Likert-items. More in-depth questions about group feeling were asked during the interviews.

### 5.2.1 Survey

The results of the three adult Likert-items about ‘group feeling’ are shown in figure 17. To both the statements “I have met new people” (“Ik ben met nieuwe mensen in contact gekomen”) and “I felt very involved in the activity” (“Ik voelde me erg bij de activiteit betrokken”) the adults responded very positive. The majority, 63% and 75% respectively, either agreed or highly agreed with the statements. A more diverse response was found with the statement “I worked together with others in an intensive way” (“Ik heb intensief met anderen samengewerkt”). Most respondents were neutral about this statement (36%), 33% agreed or highly agreed and 27% disagreed or highly disagreed.

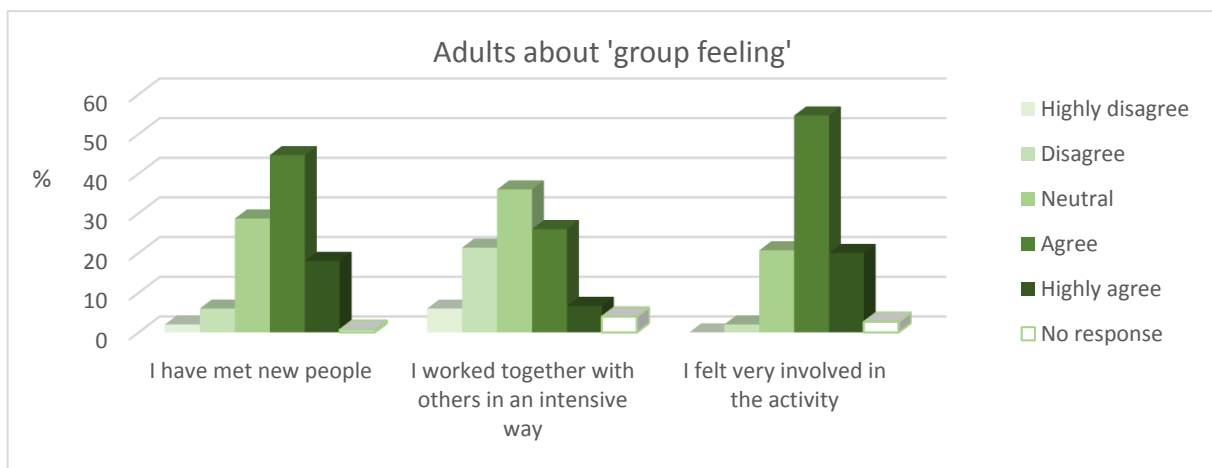


Figure 17: Response of adults on three statements about ‘group feeling’, N=150.

Also the children responded differently to the two statements (figure 18). Out of the 34 children that responded to the statement “I made new friends” (“Ik heb nieuwe vrienden gemaakt”) 15 stated that this was not true, 10 thought it was a little true or a little not true and 8 thought it was true. The statement “I played a lot together today” received mostly a positive response. All 35 children responded to this statement and 17 of them felt this was true.



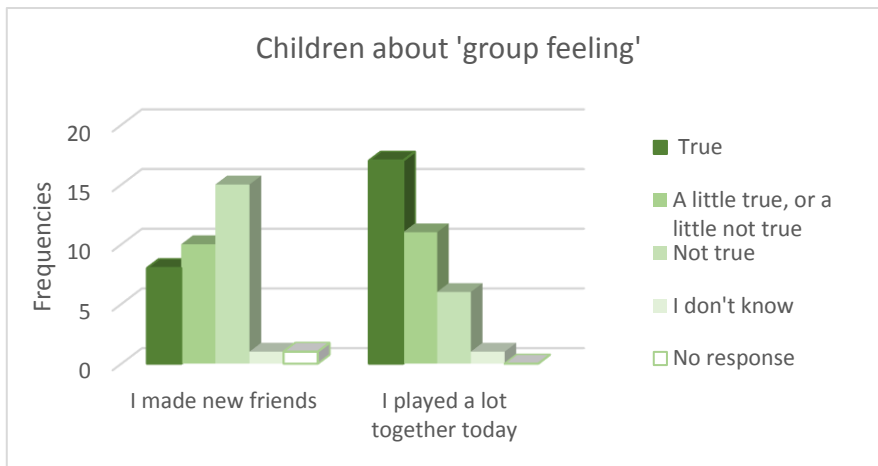


Figure 18: Response of children on two statements about 'group feeling', N=35.

## 5.2.2 Interviews

The interview questions related to the experiences of a group feeling partly resembled the Likert-items in the questionnaire, but tried to gain a deeper understanding of the experience. For the other part the interview questions focussed on the possibility of an influence of group size on the gained experience.

A striking comment during one of the interviews showed great correspondence with the theoretical concepts that 'group feeling' was built on. The following comment illustrates that the 'shared mood' and the 'mutual focus of attention' play a role in this participant's experience of a group feeling:

*"[There was a group feeling] in the sense that everybody was clearly in a positive mood, did their best. [...] It was fun to walk with other people who are also interested." (Participant 4)*

Related to the possibility of a group feeling during an activity is the opportunity to meet new people. Besides connecting people with nature, the festival also set out to connect people with each other. The results from the survey already showed that participants indeed got into contact with new people, but the interviews show that participants also actively use the festival for this purpose.

*"I think it also really is a way to meet new people." (Participant 3)*

*"That [an excursion] is fun, because you are outside, you are among people and I just meet too few people." (Participant 6)*

Another factor related to group feeling that can draw people to the festival is the prospect of other already familiar people joining too. So not the expectation of meeting new people, but the sense of a group feeling with known people can be of influence. This possible influence is not anticipated in this research but was put forward by one of the interviewed participants:

*"Those posters were hanging on our door and then I thought, well sounds fun, let's go there. And then others joined and then I thought, well now we will definitely go." (Participant 8)*

An aspect that was anticipated to influence the participants' experiences was the size of the group that visited the activity. During the interviews the participants were asked if the group did or did not contribute to the experience. It became apparent that the size of the group did matter and that it could be either too big or too small. The next three quotes are from participants joining a guided tour and illustrate that a big group as well as a small group has its pros and cons:

*"The big group made it a bit harder to keep track. You often had to stand a little closer to others to hear anything he [the guide] said at all, because you miss half of the things when you walk in the back for instance" (Participant 1)*

*“I think it is just cute actually, with such a small group of people. I would also like that at other activities too. It just was the small scale of it, I actually really liked. [...] With a bigger group there would have been less attention, less intimacy.” (Participant 2)*

*“It should also not be smaller (then 15 people), then it becomes sort of a private class. [...] I also want to look around indifferently for a bit once in a while.” (Participant 4)*

The comments from the interviews show that a group feeling can be a reason why people join the festival. The comments also show that the size of the group can be of influence on the participants experience, in positive as well as negative way. It is very much possible that each different type of activity has an average preferred group size.

### 5.3 Experiences related to emotional energy

In both the adult and child questionnaire three items assessed the level of ‘emotional energy’ that was experienced. A deeper understanding of what the activity had brought about in terms of emotions was pursued in the interviews.

#### 5.3.1 Survey

A very positive response was found at all three of the statements (figure 19). Over 80% of the respondents agreed or highly agreed with the statement “The activity gave me energy” (“De activiteit heeft mij energie gegeven”). With the other two statements, “There was a nice atmosphere” (“Er hing een fijne sfeer”) and “I am enthusiastic about the activity” (“Ik ben enthousiast over de activiteit”), even over 90% of the respondents agreed or highly agreed.

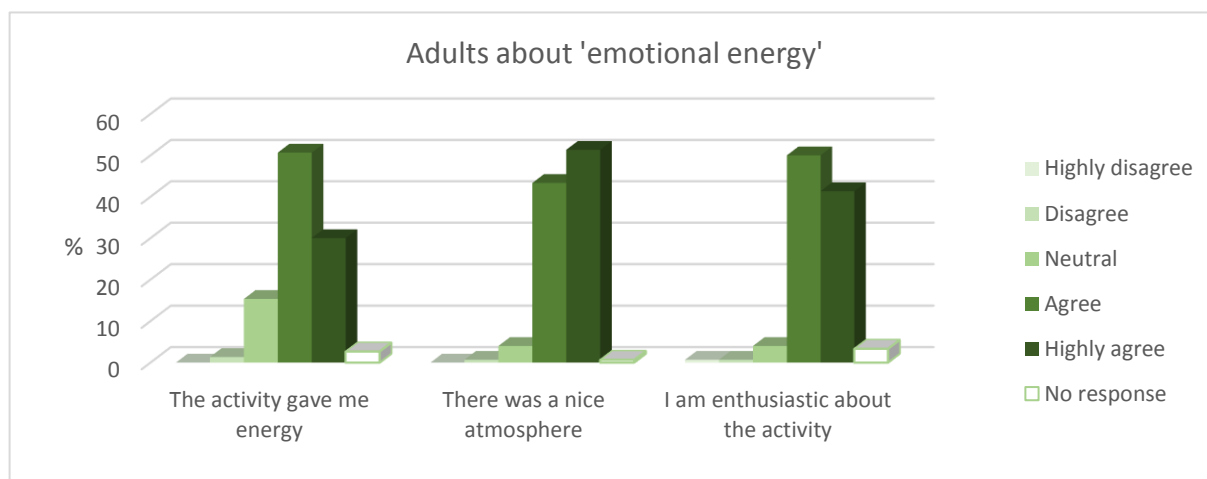


Figure 19: Response of adults on three statements about ‘emotional energy’, N=150.

Also the children responded very positive to the statements that set out to assess ‘emotional energy’. The vast majority felt that the statements “I looked forward to today”, “I did not get bored” and “Today was a fun day” were true (23, 27 and 31 children respectively). The results are shown in figure 20.

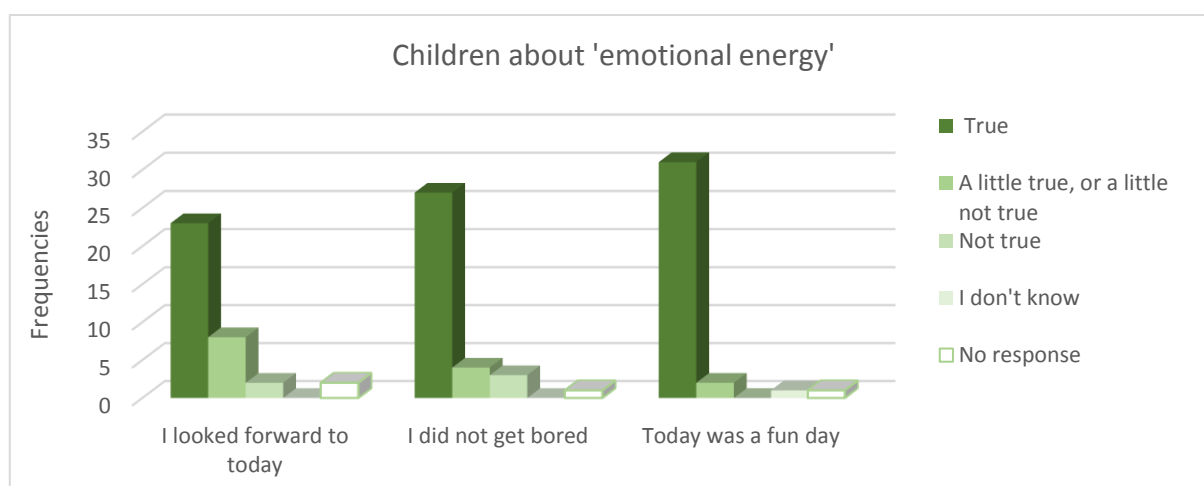


Figure 20: Response of children on three statements about 'emotional energy', N=35.

### 5.3.2 Interviews

Where the survey tried to determine *if* the participants experienced a high emotional energy the interviews tried to gain more insight into *what kind* of emotions/feelings the activities generated. All the interviewed participants stated to either agree or to highly agree with the three questionnaire statements related to 'emotional energy'. Thus we can assume that for all eight interviewed participants the activity was a positive experience. During the interviews the participants were asked to describe what the activity had brought about for them (on the emotional level). Two notable emotions that were mentioned are illustrated here by a few quotes. The first striking finding was the great number of interviewed participants (4/8) that mentioned in one way or another the relaxing effect of the activity they visited. The following quote is a very clear example of this:

*"I thought it was very relaxing. Stroll a little, looking at plants." (Participant 1)*

Another interviewed participant described in a very vivid way the feeling that came with the visited activity, which in this case was the screening of a nature documentary outside in nature. Also this participant mentioned, although in a more indirect way, the relaxing effect:

*"It made me happy. I had very much a holiday feeling, but of course it was nice weather and you sit outside and everyone is relaxed and you sit in a nice environment. All of that helps." (Participant 7)*

The other notable emotion that was mentioned during the interviews was 'satisfaction'. This emotion was not anticipated, but does fit within the concept of a high emotional energy. Two of the interviewed participants very explicitly mentioned experiencing this emotion about the activity:

*"I was very satisfied with myself, that I did that." (Participant 5)*

*"I always have a satisfied feeling about that. [...] That you heard things again. There are often things that you did not know anymore or did not know at all." (Participant 6)*

Participant 5 went to an activity where they cleared trash from a beach and participant 6 went to a guided tour through a 'heemtuin'.

These comments on experiences of a relaxing and satisfying feeling, give some substance to the concept of emotional energy in the context of a nature experience.

## 5.4 Motivation to return

The participant's 'motivation to return' was also one of the aspects aimed to quantify with the use of several statements. For the adult questionnaire three statements were used, in the child questionnaire two were used. Again the interviews aimed to get more elaborate answers on if and why participants would return to the festival or other similar activities.

### 5.4.1 Survey

A high percentage of participants stated that they would participate next year, as 66% either agreed or highly agreed to the statement "I will participate again next year" ("Volgend jaar kom ik weer"). Also 64% either agreed or highly agreed to the statement "I'm going to recommend Fête de la Nature to others" ("Ik ga het Fête de la Nature aanraden aan anderen"). However, the response to the statement "Next year I want to organize an activity myself" ("Volgend jaar wil ik zelf een activiteit organiseren") was less positive. A large group of adults responded neutral (33%) and 37% stated they either disagreed or highly disagreed with the statement. The results of these statements are presented in figure 21.

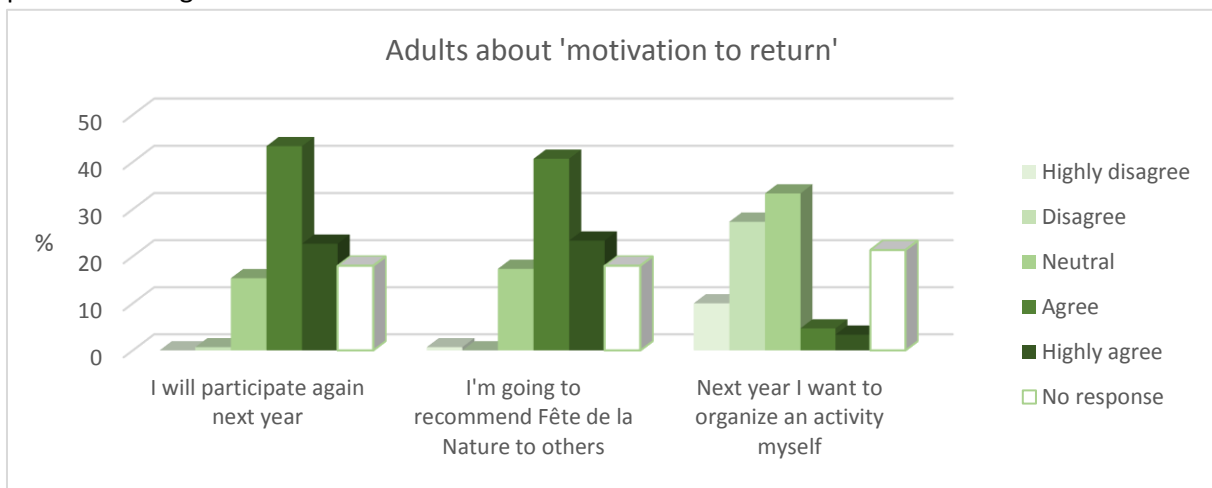


Figure 21: Response of adults on three statements about 'motivation to return', N=150.

The relatively high percentage of adults that did not give an opinion on these statements was most likely because they were printed on the back of the survey.

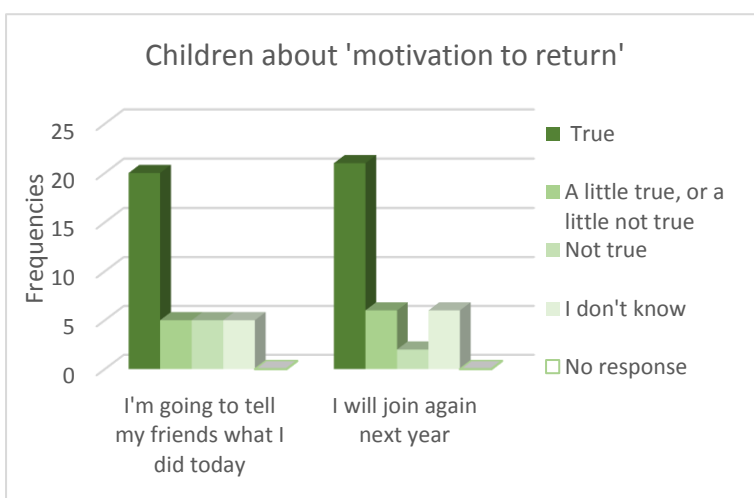


Figure 22: Response of children on statements about 'motivation to return', N=35.

Most children deemed the statement "I'm going to tell my friends what I did today" ("Ik ga mijn vrienden vertellen wat ik vandaag gedaan heb") as true (20/35). This is also the case for the statement "I will join again next year" ("Volgend jaar doe ik weer mee") (21/35). These results are presented in figure 22.

#### 5.4.2 Interviews

The positive response that the participants gave on the questionnaire statements about their motivation to return was repeated during the interviews. All eight of the interviewed participants said they would want to return, as they had had a positive experience with the festival. One participant had a very direct way of putting this:

*“I have good experiences with this and I would participate in this Fête de la Nature again next year”  
(Participant 3)*

Another participant even stated to be motivated to organise an activity sometime. As shown in the survey results, only a few participants were motivated in this way.

*“It maybe did help to convince me to organize it some time. Yes, so to visit things, yes that too, but also to organize it. [...] That you can show other people what you are doing.” (Participant 8)*

Some others were a little less direct about being motivated to participate again in the festival, or stated that there was a condition that had to be met, before they would:

*“Maybe that I would look what else there is to do. I don’t know very well what else there is, but if I’m aware of what there is to do that day then..., but on the other hand I might think it maybe is too crowded.” (Participant 1)*

*“I have to be reminded. I won’t put it in my agenda, [...] it is not that exiting yet, I think.”  
(Participant 2)*

These quotes illustrate the presence of a certain kind of reservation, found by five of the eight interviewed participants, that was not picked up in the survey. Especially the need to be reminded was often pointed out. Thus, the participants want to join next year, but some sort of incentive seems to be needed for them to actually do so.

### 5.5 Adults about child experiences

Another topic in the survey was ‘children’. If the adults had brought a child to the activity they were asked to give an opinion on four child related statements (figure 23). 47 Adults responded on these statements, therefore the shown percentages are based on this number. The interviews did not contain any questions about children. However, the interviewed participants did come up with some comments about children themselves.

#### 5.5.1 Survey

A very divided response is seen on the statement “I mainly came for the children” (“Ik ben voornamelijk voor de kinderen gekomen”). Almost an equal amount of adults agreed or highly agreed (40%) as disagreed or highly disagreed (45%) with the statement. For the majority of these participants their children were not the reason they came to the festival. This divided response is in contrast to the other three statements, which show a more one-sided response.

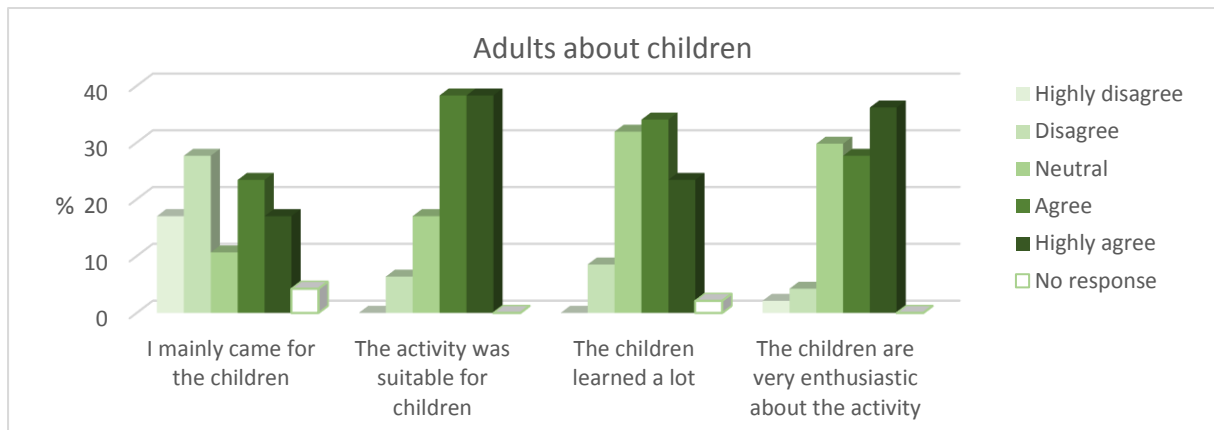


Figure 23: Response of adults on four statements about 'children', N=47.

Especially to the statement “The activity was suitable for children” (“De activiteit was geschikt voor kinderen”) the adults responded very positive, 77% agreed or highly agreed. Most respondents also agreed (agreed or highly agreed) that the children learned a lot and that the children were enthusiastic about the activity (57% and 64% respectively), though also a relatively high percentage was neutral about these topics (32% and 30% respectively).

### 5.5.2 Interviews

Beforehand it was clear that none of the participants that were going to be interviewed had gone to the festival with a child. Therefore, the interview did not contain any questions about children. Nevertheless, two interviewed participants brought up the topic themselves. Especially Participant 3 had some elaborate thoughts about the importance of nature for children. This participant has had a childhood with many nature experiences which he says contributed to his view on children and nature:

*“That is also why I have the conviction that it is especially important for children to get into contact with nature.[...] I also think that it is very important for the personal development and your adventure drive and social development.” (Participant 3)*

This participant continues to say that:

*“I think that when as a child you often come into contact with nature, that you really develop that passion. And also I think, yes I also dare to claim, that when as a child you did not get it that it actually for the rest of your life is very difficult to get”. (Participant 3)*

Another participant put the emphasis more on the role of children when aiming to raise support for nature conservation:

*“So I also think that, when you want to change something, you really need to focus this on children.” (Participant 5)*

Later in the interview, when asked what could be improved about the festival, this participant mentioned the same issue as a point of improvement:

*“I think I would make it even more child friendly [...] If you want a sort of awareness process with it, then I think, focus on youth. And these days huh, people don't know what to do with their children, so every activity is appreciated. [...] Maybe you could kill two birds with one stone that way.” (Participant 5)*

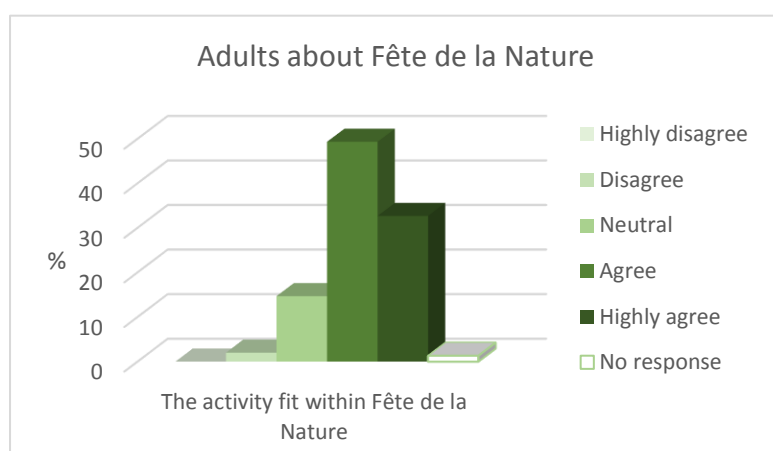
That two of the eight interviewed participants raised the importance of children's experiences in nature on their own accord might signify the presence of a wider supported perception on the topic. This is also supported by other survey results, when asked what about the festival could be improved, presented in the next sub-chapter.

## 5.6 Festival image

Besides gaining insight in the experiences the participants gained, the survey and interviews aimed to find out what image the participants have of the festival. This was pursued by asking to what extent the participants thought the activities fit within the festival and what could possibly be improved.

### 5.6.1 Fitness of activities

One statement about whether or not the activity fit within the idea of Fête de la Nature was posed in the adult survey. The results on this statement is shown in figure 24.



The great majority of the respondents either agreed or highly agreed with the statement "The activity fit within Fête de la Nature" ("De activiteit paste binnen het Fête de la Nature") (82%).

### 5.6.2 Participants about improvements

An open question in the adult questionnaire inquired about potential improvements of the festival and in the interviews a question about potential improvements was posed in an attempt to get more in-depth answers. Participants were asked for their thoughts on possible improvements of 'the festival', but also

Figure 24: Response of adults on two statements about Fête de la Nature, N=150.

improvements for the specific visited activities were given. Of the 150 surveyed adults 35 gave an answer to the open question. The most frequent types of recommended improvements are reviewed here, some of which could be supported by quotes from the interviews. The complete list with recommendations from the questionnaire can be found in appendix C.

First of all it needs to be noted that 5 of the 35 comments were in fact praises instead of suggestions for improvements. These participants were content with the way things were.

The most frequent recommended improvement concerned the publicity of the festival, as 10 of the 35 comments were about this topic. Where some of these comments focussed on the need to draw a higher number of people, others were more concerned with the way to reach people, suggesting local as well as national publicity. Also, some participants that ran into an activity by coincidence, pointed out the need for publicity/an explanation of Fête de la Nature on the site of the activity. Somewhat building on this suggested improvement is a comment from an interviewed participant:

*"If I knew on arrival, like, it is part of something bigger and this is what more there is to do, instead of having to look it up on your mobile, then it might have triggered me to visit another activity that day." (Participant 1)*

This participant did know about the activity beforehand, but was not aware of the bigger concept of Fête de la Nature. This participant would find it an improvement if somehow it would have been pointed out to him that there were more activities being held.

Next to the high number of comments about publicity are the suggested food related improvements. Out of the 35 comments 7 concerned the suggestion to have food at the activity. Possibly the idea of a nature festival goes together with the expectation of the presence of food.

As said before, and illustrated in the previous sub-chapter with quotes from the interviews, there are also suggestions made to focus more on children. Two comments in the survey proposed to actively contact organisations where there are groups of children, like schools, after-school childcare centres or sports clubs.

Furthermore, the name of the festival came up in four of the eight interviews as something that could possibly be improved. The name did not really appeal to them and one participant came with a more elaborate explanation why:

*"I find it a bit strange that it has a French name. [...] To me it comes across as a bit pretentious. It sounds to me as something far away, while I can imagine that the idea of such a day is to bring people close to nature, their own nature." (Participant 1)*

Two other interviewed participants on the other hand were more positive about the name, as they thought the name had something 'frivolous' or 'cheerful'.

One interesting comment on improvements that was given during an interview was about the idea of offering participants a small present to keep as a reminder after the festival. The participant put it in the following way:

*"I like the idea that you are left with a memory, also in terms of publicity and stuff. You have this at some events. It just needs to be something very small. [...] Preferably just something green." (Participant 3)*

Finally, as a follow up on what Participant 2 said on certain media being warm or cold (presented in Chapter 4.2.2.), this participant continued to point out the lack of background information about the organizers (the board) and the necessity of the festival on the website:

*"It has a sort of abstraction, [...] like... who are these people organizing it? You don't know, I don't know who they are. Yes it [the website] mentioned three names or something, and what do they want, why? [...] The necessity, that is it really. You don't know the necessity of it." (Participant 2)*

This participant would see it as an improvement if the festival's website would contain more profound information and got a more personal touch, in an attempt to warm up this channel.



## 6 Statistical analysis of the hypothesized model

To get an impression of the possible and hypothesised relationships between the themes ‘nature’, ‘group feeling’, ‘emotional energy’ and ‘motivation to return’, presented in Chapter 2, a statistical analysis is done. Therefore, four Likert-scales are developed that represent the four themes (that from now on will be called variables). A correlation analysis gives an initial hint of the strength and direction of the linear relationships between the four variables. Then, a path-analysis also shows the nature of the relationships. These analyses were only done with the adult surveys, as for the child surveys the sample size was too small.

### 6.1 Likert-scales and correlations

The four scales representing the variables ‘nature’, ‘group feeling’, ‘emotional energy’ and ‘motivation to return’, are a combination of 2 to 3 Likert-items. Each scale is the median of the sum of the responses on the Likert-items. Which Likert-items are used for each scale is presented in table 3. To test the reliability of these scales their Cronbach’s alpha is calculated. The Cronbach’s alpha measures the internal consistency. The higher the alpha the higher the internal consistency. The Cronbach’s alpha’s of the four tested scales are shown in table 4.

Table 3: Likert-items per scale.

Scale	Likert-items
<b>Nature</b>	I feel I’m in nature here
	I have been active with nature in an intensive way
<b>Group feeling</b>	I have met new people
	I have worked together with people in an intensive way
	I felt very involved in the activity
<b>Emotional energy</b>	The activity gave me energy
	There was a nice atmosphere
	I’m enthusiastic about the activity
<b>Motivation to return</b>	I will participate again next year
	I’m going to recommend Fête de la Nature to others

Initially the scale ‘motivation to return’ included the Likert-item “Next year I want to organize an activity myself”. However this scale’s Cronbach’s alpha was higher without this Likert-item, therefore it was excluded. The possibility of other combinations of items being more compatible is ruled out as those combinations generated lower alpha’s.

Table 4: Cronbach’s alphas of the four scales.

Scale	Cronbach’s Alpha	N of questions	N of participants
<b>Nature</b>	0,604	2	141
<b>Group feeling</b>	0,666	3	141
<b>Emotional energy</b>	0,771	3	143
<b>Motivation to return</b>	0,657	2	122

The correlation analysis shows the strength and direction of the relationships between the variables. This analysis is done using Kendall's tau, because of the relatively small sample size ( $N = 150$ ) and large number of tied ranks within the data. Bootstrapping has been done with 1000 samples to ensure robustness. A correlation coefficient between 0 and 1 indicates a positive correlation (if one variable increases, the other increases) and between -1 and 0 a negative correlation (if one variable decreases the other increases). The closer to  $\pm 1$  the stronger the correlation. The correlations between the four variables is visualized in figure 25.

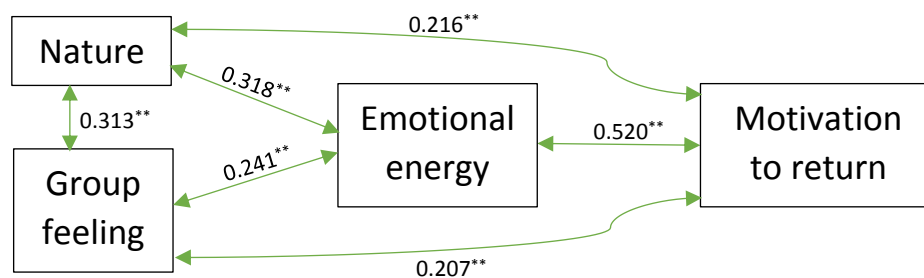


Figure 25: A visualization of the correlations between the four variables, with the correlation coefficients on the arrows.  
 \*\* Correlation is significant at the 0.01 level (2-tailed).

Between all four variables a significant positive correlation exists. The direct relationships between 'nature' and 'motivation to return', and 'group feeling' and 'motivation to return' are the two weakest relationships (0.216 and 0.207 respectively). The correlation between 'emotional energy' and 'motivation to return' is the strongest (0.520).

## 6.2 Path analysis

A path analysis by means of two regression analyses is done to estimate magnitude and significance of the hypothesized causal relationships between the four variables: nature, group feeling, emotional energy and motivation to return.

All assumptions were met for both regressions and robustness of the regressions was guaranteed by bootstrapping with 1000 samples. The order of each (hierarchical stepwise) regression is based on the correlation coefficients between the variables. The variable with the strongest relationship (highest correlation coefficient) is added in Step 1, the one with the second strongest relationship in Step 2 and so on. The hypothesised model that is being tested is shown below in figure 26 (it is derived from the theoretical model explained in Chapter 2).

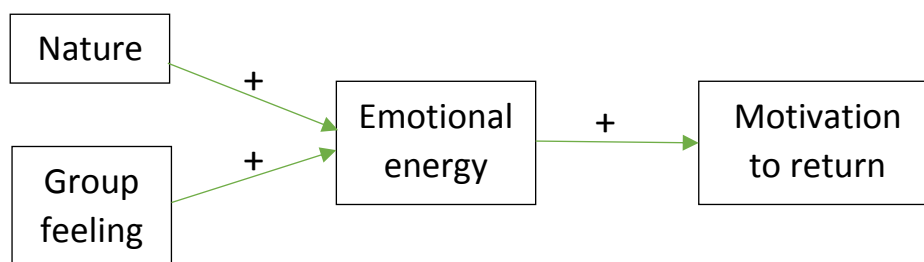


Figure 26: Hypothesized model of causal relationships between the four variables.

### 6.2.1 Regression 1. Predicting 'emotional energy'

In the first regression the direct influence of 'nature' and 'group feeling' on 'emotional energy' is estimated in two steps. In the first step only the influence of 'nature' is analysed, in the second step the variable 'group feeling' is added, thus the influence of both variable is considered. The R-square ( $R^2$ ) of each step will tell the percentage of explained variability in the response data. The outcomes of the first regression are presented in table 5.

Table 5: Linear model of predictors of 'emotional energy', with 95% bias corrected and accelerated confidence intervals reported in parentheses. Confidence intervals and standard errors are based on 1000 bootstrap samples.

	<i>b</i>	<i>SE B</i>	$\beta$	<i>p</i>
<b>Step 1</b>				
<b>Constant</b>	3.119 (2.497 – 3.705)	0.320		$p=.001$
<b>Nature</b>	0.330 (0.170 – 0.495)	0.079	.436	$p=.001$
<b>Step 2</b>				
<b>Constant</b>	2.843 (2.232 – 3.500)	0.320		$p=.001$
<b>Nature</b>	0.257 (0.085 – 0.423)	0.081	.339	$p=.001$
<b>Group feeling</b>	0.156 (0.028 – 0.261)	0.063	.216	$p=.017$

Note.  $R^2 = .190$  for Step 1;  $\Delta R^2 = .037$  for Step 2 ( $p = .014$ )

The positive change in  $R^2$  ( $\Delta R^2$ ) from Step 1 to Step 2 is significant, consequently Step 2 better accounts for variability in the response data than Step 1. The predictors 'nature' and 'group feeling' have a significant predicting relationship with 'emotional energy' ( $\beta = .339$ ,  $p = .001$ ;  $\beta = .216$ ,  $p = .017$  respectively). A schematic representation of these relationships is shown in figure 27.

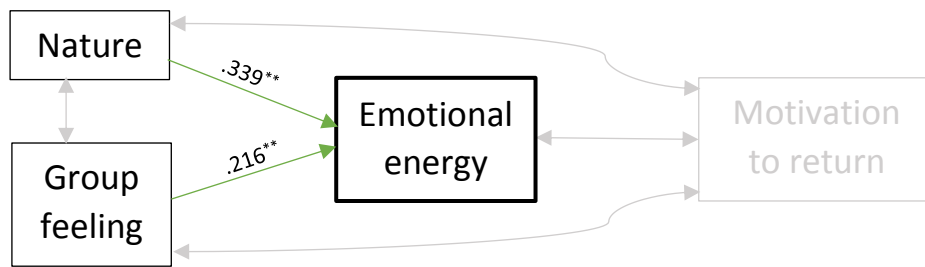


Figure 27: Schematic representation of Step 2 in regression analysis with 'motivation to return' and 'nature' as predictors of dependent variable 'emotional energy'. \*\* Path coefficients ( $\beta$ ) are significant at the 0.01 level.

Also the influence on 'emotional energy' of variables that are not hypothesised is estimated. The path coefficient of extraneous variables affecting 'emotional energy' ( $E_{ee}$ ) is:

$$\sqrt{1 - R^2} = \sqrt{1 - .227} = .879$$

In this equation the  $R^2$  of Step 2 is used as it was significantly higher than in Step 1.

### 6.2.2 Regression 2. Predicting 'motivation to return'

In the second regression the direct influence of 'nature', 'group feeling' and 'emotional energy' on 'motivation to return' is estimated in three steps. In the first step only the influence of 'emotional energy' is analysed, in the second step the variable 'nature' is added and in the third step the influence of all three variables is estimated. The outcomes of the second regression are presented in table 6.

Table 6: Linear model of predictors of 'motivation to return', with 95% bias corrected and accelerated confidence intervals reported in parentheses. Confidence intervals and standard errors are based on 1000 bootstrap samples.

	<i>b</i>	<i>SE B</i>	$\beta$	<i>p</i>
<b>Step 1</b>				
<b>Constant</b>	1.140 (0.195 – 1.932)	0.448		<i>p</i> =.012
<b>Emotional energy</b>	0.653 (0.465 – 0.880)	0.102	.567	<i>p</i> =.001
<b>Step 2</b>				
<b>Constant</b>	1.015 (-0.006 – 1.943)	0.510		<i>p</i> =.060
<b>Emotional energy</b>	0.620 (0.415 – 0.867)	0.104	.539	<i>p</i> =.001
<b>Nature</b>	0.071 (-0.108 – 0.252)	0.088	.086	<i>p</i> =.410
<b>Step 3</b>				
<b>Constant</b>	0.902 (-0.082 – 1.793)	0.482		<i>p</i> =.074
<b>Emotional energy</b>	0.595 (0.376 – 0.848)	0.108	.517	<i>p</i> =.001
<b>Nature</b>	0.043 (-0.149 – 0.235)	0.094	.053	<i>p</i> =.641
<b>Group feeling</b>	0.092 (0.079 – 0.239)	0.076	.116	<i>p</i> =.211

Note.  $R^2 = .322$  for Step 1;  $\Delta R^2 = .007$  for Step 2 ( $p = .310$ );  $\Delta R^2 = .011$  for Step 3 ( $p = .181$ )

The predicting variable 'emotional energy' has a significant predicting relationship with 'motivation to return' ( $\beta = .567$ ,  $p = .001$ ). In Steps 2 and 3 the  $R^2$  does not significantly change, which means that adding predictors 'nature' and 'group feeling' does not make a model that includes these relationships better account for the variability in the response data. A schematic representation of Step 1 is shown in figure 28.

The path coefficient of extraneous variables affecting 'motivation to return' ( $E_{mtr}$ ) is:

$$\sqrt{1 - R^2} = \sqrt{1 - .322} = .823$$

In this equation the  $R^2$  of Step 1 is used as the  $R^2$  of Step 2 and 3 were not significantly higher than in Step 1.

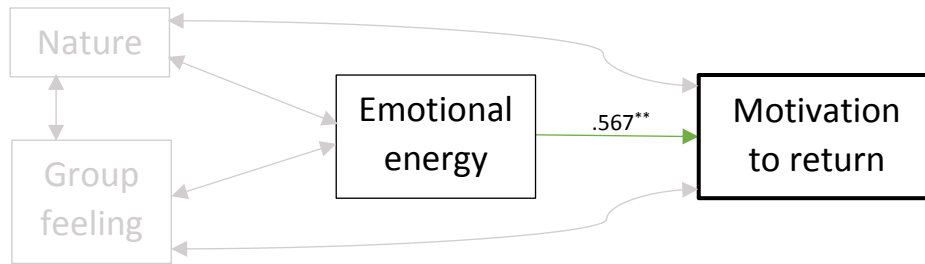


Figure 28: Schematic representation of Step 1 in regression analysis with 'emotional energy' as predictors of dependant variable 'motivation to return'. \*\* Path coefficients ( $\beta$ ) are significant at the 0.01 level.

### 6.2.3 Predicting relationships between variables

The two regressions can be combined, which gives the resulting path diagram presented in figure 29. Only the steps that best explained the variability in the outcome data (significantly highest  $R^2$ ) are taken into account. This diagram shows that, with the given data, significant direct predicting relationships exists between 'nature' and 'emotional energy', 'group feeling' and 'emotional energy', and 'emotional energy' and 'motivation to return'. Higher 'nature' indicates higher 'emotional energy', higher 'group feeling' indicates higher 'emotional energy' and higher 'emotional energy' indicates higher 'motivation to return'. For both the variables 'emotional energy' and 'motivation to return' extraneous variables are of great influence.

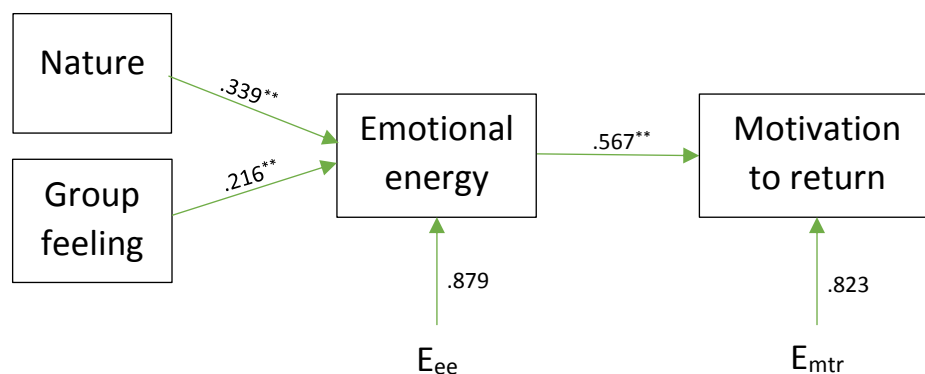


Figure 29: Path diagram of the relationships between the four variables, indicating path coefficients. The influence of extraneous variables is represented by  $E_{ee}$  and  $E_{mtr}$ .

(Note: each path coefficient should be considered individually. The sum of the path coefficients are unlikely to add up to 1. This is only the case when there is no overlap/influence between predicting variables, which is highly unlikely in social studies.)

## 7 Evaluation and discussion

This chapter will go deeper into the results. They will be interpreted, connections between results are made and the significance of the results is discussed. Also the used theories and methods will be reflected on.

### 7.1 Evaluation and discussion of the results

#### 7.1.1 Participant background and recruitment

The obtained background information on the adult participants could tell us something about whether or not this festival draws a different audience than what could be expected. For instance, did the festival appeal to the 'usual (green) suspects' or did it also draw the less expected and at the same time the all the more wanted audience? The percentage of participants that are a member of a nature/environmental organisation can be taken as a rough measure to see if the festival drew the people that are already involved with nature.

When comparing these percentages with the national percentage of members, the participants of the festival were more often a member of a nature/environmental organisation than could be expected of a random group of Dutch people. The national percentage of members is 28% (CBS, 2006) compared to 43% of the surveyed festival participants. This suggests that the festival drew the more nature-involved people.

In the same fashion the question can be asked if the festival drew more people from different ages than what could be expected? When the age of all the surveyed participants (children and adults) are viewed together it becomes evident that only a very small number of teenagers were surveyed. This suggests that this group participated less at the festival. Perhaps teenagers do not show interest in the nature festival. It could also be possible that teenagers were not, or did not feel addressed. These findings would be in line with research on (Dutch) teenager's involvement with nature (de Witt, 2005).

It would also have been interesting to see which people came back to the festival after having visited an earlier year and why. It could possibly be of value, in order to stimulate more people to keep coming back. Unfortunately only a small number of the surveyed participants had joined the festival before, which made it impossible to derive any significant indicators that could tell whether a participant returns to the festival.

Interestingly most participants knew about the festival through friends and family. The comment Participant 2 made on some media being warm and others cold was an attractive notion, which is arguably in line with Collins IRC theory (2004). Direct (warm) interaction could be theorised to induce a higher emotional energy, which makes people more likely to be persuaded to join the festival. Collins beliefs online interaction does not result in the same intensity of outcomes as a real-life/direct interaction would. He predicts that "the more that human social activities are carried out by distance media, at low levels of IR intensity, the less solidarity people will feel; the less respect they will have for shared symbolic objects; and the less enthusiastic personal motivation they will have in the form of emotional energy" (Collins, 2004).

Thus from the IRC point of view it is no surprise that direct interaction played a bigger role in the recruitment of participants. Furthermore, if it is the goal to draw more people to the festival, which it is, a focus on these direct interactions would be recommended.

### 7.1.2 Experiences of nature

Looking back at the conceptual model of this thesis, the presumed ingredients necessary for a successful nature interaction were the presence of nature, focus of attention on nature and entrainment with nature. Through the nature related statements an attempt was made to measure the presence of these ingredients combined in the single theme 'nature'.

Both the child participants and the adult participants experienced nature to a great extent during the festival. The participants definitely experienced to be in the presence of nature. The adults also very much felt they had interacted with nature during the festival. This suggests a certain focus on nature was experienced too.

However, the results from the interviews give a somewhat less unambiguous impression, as the participant's own definition of nature turned out to be a topic of importance. Without intending to raise this topic the interviewed most participants came up with this issue themselves. It often came down to the participants being not entirely convinced on what they themselves regard as nature. It seems as though talking about a nature experience after some time has passed can result in a different opinion on the initial nature experience. The results show a clear nature experience when asked during the festival, but afterwards the question arises if it really was nature they experienced.

This reduced constancy of opinion could be understood with the help of the IRC theory (Collins, 2004). From the IRC perspective the high emotional energy an individual experiences at an event slowly fades away when time passes. The interviews were conducted almost two months after the festival, which makes it possible for the emotional energy to have decreased. The seeming decline in conviction of the participants about their nature experience could be a consequence of the reduced emotional energy regarding the festival.

The decision to not define nature in this study (in the conceptual framework) seems to be justified by the strongly diverging opinions on the definition of nature by the participants. A fixed definition of nature beforehand would possibly have restricted the participants' view. What mattered for this research was the perception of a nature experience defined by the participants themselves. Even though the definition of nature is a much debated topic, the participants did experience nature during the festival.

### 7.1.3 Experiences of a group feeling

Because contact with others is also of importance to the festival and is theorised to most likely play a part in generating emotional energy during the event, the presence of a group feeling was also taken into consideration.

The experiences of a group feeling was rather variable, for the adults as well as the children. The adults did feel very involved in the activity, but were more divided about if they worked together in an intensive way. Arguably the used statements measured two different aspects of a group feeling. Consequently, a very unambiguous response cannot be expected.

Furthermore, the surveyed activities differ a lot with regards to the experience of a group feeling. For instance, not all activities come about or are planned in such a way that the participants have to work together. This could explain the variable response on this item. In addition, some nature activities might actively avoid (large) groups, they are designed around the idea of experiencing nature more individually, which brings us to the next discussion point.

There is the possibility that the experience of nature is influenced by the presence of other people, that it makes a difference if nature is experienced in solitude or in a group. On the one hand, if the IRC theory is followed, it can be argued that the presence of other people, provided that there is a shared mood and focus (on nature), will contribute to a high emotional energy and thus a positive nature experience. On the other hand however, it can be argued that the presence of other people detracts from the focus on nature, as there is also a focus on each other. A few participants shared this sentiment during the interviews. They express their experienced difference when being in nature in solitude versus being in nature with others (in general, not specifically at the festival):

*"I think that you are enjoying it more, or more uhm... enjoy it more conscious sort of, when you are alone, because you see and hear more and you use your senses more." (Participant 3)*

*"By yourself it is, to use a difficult word, more contemplative, a bit more considered. [...] You get more close to yourself you could say." (Participant 5)*

*"When I am alone then you will look around more and because it is quite you will see more animals, you see more anyway. When you are together you are talking more and then you are more..., then you are together in nature, but when you are alone you are more with nature." (Participant 7)*

What these participants have in common is a sense of reduced focus on nature when they are with other people. The focus of attention lies more on each other, while when alone the focus can be more on nature and nature is more experienced.

Even though the presence of other people/a group can be experienced as detracting from the nature experience, this study's results show this was not the case during the festival. In the statistical analysis a positive correlation between the variables 'nature' and 'group feeling' was found. Thus, the presence of a group did not seem to negatively influence the nature experience, but positively instead.

#### 7.1.4 Experiences of emotional energy

A very convincing positive response was found to all the emotional energy related statements, both from the children and adults. The adults were enthusiastic and got energy from the activity and thought there was a nice atmosphere. The children thought it was a fun day and did not get bored.

The children also responded very positive on the statement "I looked forward to today", which can be argued not to measure the resulting emotion from the festival, but the anticipating emotion. The fact that the children did look forward might thus say more about the festival image and the expectations the children have, then it does about the emotional energy the festival generates when actually visiting it.

We can be more certain about the consistency between the three emotional energy related statements that are used in the adult questionnaire. The calculated Cronbach's alpha for the emotional energy scale is relatively high, which indicates that these statements assess the same variable.

The interviews gave a bit more insight into what kind of positive emotions the participants experienced. A few emotions like the relaxedness or satisfaction stood out, but it is hard to say if there are any general emotions that can be attributed to the nature experiences the participants gained at the festival.



### 7.1.5 Motivation to return

Both children and adults expressed a high motivation to return to next year's festival. However, when comparing these results with the amount of people that returned after last year's edition it seems as though there is a discrepancy between saying they return and the actual return. In total 18 of the 150 adults, and 7 of the 35 children, had participated in an earlier edition of the festival. While 99 adults and 21 children say they would like to return next year.

What may happen is that participants at that moment think that they will return, still in the high emotional energy generated by the activity, but afterwards, when this energy has faded, end up not doing so. The following quote by of the interviewed participants illustrates how some intentions just end up not being carried out:

*"It actually was a very beautiful oasis, in the middle of the city like that, with many old trees and uhm... I thought, well I can very well go for a walk here more often. Afterwards, I never did that but yeah..." (Participant 1)*

The results from the interviews give another explanation to why the positive results from the survey on the motivation to return do not match the actual return from last years. The survey results might give a somewhat over-positive image, as in the interviews it became apparent that for some participants certain conditions had to be met before they would actually return. In most cases this came down to the necessity of a reminder. Thus, the motivation is there, but the incentive to actually return may be missing.

It would have also been interesting to know if the participants were motivated to return to nature in general, not specifically to the nature festival. It is, after all, the underlying hypothesis of this study, and the goal of the festival that people wish to return to nature more generally, not just to the festival. Further research could take this into account.

### 7.1.6 Adults about their children

The most striking result from the adults on the child related questions, was the divided response on the statement "I mainly came for the children". Assuming that only the adults that came with children to the festival answered these statements, it is surprising that their children where not the main reason to visit the festival. Moreover, 17% of these adults even highly disagreed with the statement, suggesting they did not come for their children at all. It would have been interesting to know what other reason these adults have to come to the festival with their children.

What the adults were most positive about was the suitability of the activity. Most likely (but this does not have to be the case as the results from the recruitment show) the adults knew about the festival/activity beforehand and decided if it would be suitable for their children. The positive response on the suitability then shows that the actual experience of the activity matched their expectations.

A very positive response was also found for the two remaining child related statements, "The children learned a lot" and "The children are very enthusiastic about the activity". On the latter statement a slightly more positive response was found. This gives the impression that, at the festival in general, the educational aspect played a slightly smaller role then the children's' enthusiasm.

Even though the questionnaire clearly stated only to answer to these statements when they had brought a child, it might be possible that some participants overlooked those instructions. For an adult that did not bring a child, the statement "I mainly came for the children" might come across

strangely. In that case to respond with “highly disagree” is understandable. It could also give a possible explanation for the difference in response between the other three statements, especially the difference in number of adults that responded with “neutral”. The statement “The activity was suitable for children” is not only fitting for adults that brought a child. Any adult can have an opinion on that. However, the other two statements “The children learned a lot” and “The children are very enthusiastic about the activity” ask for a more close interaction with the children in question. It is understandable that if any adults without children responded on these statements, they more likely responded with “neutral”. Unfortunately it is not retrievable if it actually was the case that adults without children responded to these statements.

Regardless whether this was the case or not, the adults were very positive about the suitability of the activity they visited and thought the children learned a lot and were very enthusiastic.

#### 7.1.7 Festival image

The single statement about the fitness of the activities got a very positive response. This is especially remarkable when it is brought to mind that a great number of participants were not aware beforehand that the activity was part of the festival (see figure x). It suggests that even though many participants did not know anything about the festival yet, the first encounter matches their first idea of what a nature festival entails. It thus can be argued that Fête de la Nature (or nature festival in general) appeals to the imagination.

With at least 26% of the participants not being aware that the activity they visited was part of Fête de la Nature, it is also no surprise that relatively loud appeal to improve the festival’s publicity was found. This however is something the festival aims to improve already. The results from the statement “How did you know about this activity” might be of help here. On the one hand it can be argued to enhance the already well established channels through which the participants knew about the festival, via friends, family and local media. On the other hand it can be argued to focus on the channels that appear not to have been effective, the internet based channels. As explained earlier (in Chapter 7.1.1), this study’s conceptual framework follows the IRC theory (Collins, 2004) and is therefore inclined to recommend enhancing the already established channels as these are the more direct ones.

A rather unanticipated proposed improvement was the presence of food. This study did not theorize on the importance of food to a festival, as it lies outside its scope. Nevertheless, for the sake of the improvement of the festival in terms of drawing more people, it would be interesting to study the role of food in future research.

The name of the festival also came up a few times in the interviews as an aspect that could be improved. Perhaps the name finds some resistance, not just because it is French (that same fact has been mentioned as something positive), but because it does not have the same roots as it has in France. In France the name makes sense in the light of other festive national traditions with a similar name like Fête de la Musique or Fête du Travail (labor day). Whether it would truly improve the festival to change the name is not something that can be answered in this study.

Finally, one interviewed participants mentioned the notion of a small token functioning as help to remind participants of their experiences gained at the festival. That this participant brought up the idea of a token is particularly interesting, because it is in line with Collins’s IRC theory (2004). Such a small present could become a symbol charged with the emotional energy gained during the event. This symbol would then, according to the theory, prolong the emotional energy after the event and hold up the feelings of solidarity for a longer period of time.

Initially this research set out to pay more attention to the asset of symbols. However, insufficient data was found to do a reliable analysis on the existence of symbols at the festival and the extent to which they play a role in the ritual of visiting this nature festival. Perhaps little data was found because symbols just do not play a significant role. It could be worth heading the suggestion of the participant to introduce small tokens, given that theoretically symbols are of great value to the prolongation of emotional energy and the manifestation of a chain. In other words, a focus on symbol creation could redraw people to the festival and nature.

#### 7.1.8 Interrelations

The significant positive correlations that were found, gave a first impression on the existence of any relationships between the themes and where the strong and weak relationships were located. A correlation does not say much about the nature or the relationship and thus a path analysis was done, by means of regression analyses.

The first regression tested whether 'nature' and/or 'group feeling' were predictors of 'emotional energy'. The results show that both 'nature' and 'group feeling' are significant predictors of 'emotional energy', and that these two variables together better account for the variability in 'emotional energy' than one of them would singularly. This can be interpreted as: the emotional energy the participants of the festival felt, can (partly) be explained by the experience of nature and a group feeling. Both 'nature' and 'group feeling' together explained 23% of the variability in 'emotional energy'.

The slightly higher  $\beta$  for 'nature' than 'group feeling', indicate a slightly higher predicting relationship found between 'nature' and 'emotional energy' than between 'group feeling' and 'emotional energy'. This suggests that during this festival nature played a larger role in raising the participants' emotional energy than a group feeling did.

The second regression tested which variables have a predicting relationship with 'motivation to return'. In this regression only between 'emotional energy' and 'motivation to return' a significant relationship was found. There was no direct predicting relationship between 'nature' and 'motivation to return' and 'group feeling' and 'motivation to return'. This can be interpreted as: the motivation to return the participants of the festival felt, can (partly) be explained by the experience of emotional energy. Emotional energy explained 32% of the variability in the motivation to return.

When these two regressions are regarded collectively, a path emerges with significant relationships that follows the hypothesised model. The experience of both nature and a group feeling lead to emotional energy and in turn the emotional energy leads to a motivation to return. This path analysis seems to support the hypothesised model.

What should not be forgotten though, is that a great deal of variability in the outcome of 'emotional energy' and 'motivation to return' could not be explained by the variables included in this study, as shown by the high path coefficients of the extraneous variables. However, the high influence of extraneous variables on both 'emotional energy' and 'motivation to return' is no surprise, considered this is a social study (Breckler, Olson, & Wiggins, 2005).

## 7.2 Reflection on theories and methods

### 7.2.1 Reflection on theories

For this study's conceptual framework two theories were combined, the Biophilia hypothesis and the IRC theory. Together these theories are considered to help understand the mechanism behind the

human-nature connection. However, these theories are no perfect fit, thus combining them needed some creative theorizing and inevitably left some holes in the resulting conceptual model.

First of all, the whole IRC theory is built on the interaction between people. The two key words here being 'interaction' and 'people'. In this study's conceptual framework 'people' is replaced with 'nature' and 'interaction' is left as it is. However, it is open to discussion whether interaction with nature is comparable with interaction between people. The word 'interaction' implies action from both sides, *between* two actors. It is questionable to what extent there can be spoken of 'interaction' when it comes to people experiencing nature. A different, more fitting word, would provide a way around this debate, but it would also take a step away from the Interaction Ritual Chain theory.

These considerations on interaction have led to the decision not to focus on the IRC ingredients 'mutual focus' and 'shared mood' in this study's conceptual model. These ingredients did not seem to fit with the idea of a nature interaction. A more thorough conceptualization of the 'nature interaction' (instead of social interaction), in the context of an individual experience with nature would be helpful for those who wish to pursue scientific research in this direction.

Secondly, this study took a more open stance towards the concept 'love of life' than the biophilia notion does. Both Wilson and Fromm (Wilson more than Fromm) focus their biophilia on the love for other living organisms. This study however, chose to widen the concept of biophilia to entail the love for nature and leaves the definition of nature open to the experiencer. Arguably the definition of nature is very important indeed in the light of nature ethics. If nature protection is the goal and to reach that nature needs to be experienced, then the question might be raised of what nature ought to be protected and what nature needs to be experienced in order to protect it.

What also is in need of discussion is the trivial appearance of the resulting conceptual model. Especially the hypothesised steps where a high emotional energy leads to a motivation to return. It is no surprise that if people liked something they will want to do it again. The relatively strong predicting relationship between 'emotional energy' and 'motivation to return' is very logical. Even without the use of the IRC theory this is in line of expectation. When people liked something it is very probable that they will want to repeat it. This mechanism is inherent to the IRC theory. However, the more valuable part of the IRC theory to this study's conceptual model is the idea that people do not just want to do something again but that they develop a sense of solidarity through the repetition. In turn this sense of solidarity would correspond with a connection with nature and the expression of biophilia. In a study carried out over a longer time period, these aspects of this study's conceptual framework would take more centre stage.

In addition, what makes this study's conceptual framework exceptional is the presumed exclusive role nature plays in generating emotional energy and in turn a motivation to return. This study's findings support nature's exclusive role and even hint at the role of nature being greater than the role of a group feeling.

Finally, certain IRC concepts were simplified in order to operationalise them. For instance, to take into account the possible influence of the presence other people, the concepts group assembly, barriers, mutual focus, shared mood are measured in the single theme 'group feeling'. The same goes for the theme 'nature'. It is possible that this simplification caused to miss the more subtle roles the concepts play within these themes.

### 7.2.2 Reflection on methods

A first point of discussion with regards to this study's methods is the fact that in this study the results of all the different activities are piled together. It can be argued if it is fair to generalize the results to 'the experiences of the festival', when the activities are very diverse. An evaluation per activity would probably generate different outcomes. Then it might be possible to see which (type) of activities generate what levels of the four variables. At which activity does group feeling play a big part, or at which activity is nature most experienced, or at which activity is the highest motivation to return found and so on. This kind of study would need high sample sizes for each activity, however for certain activities this would do not be possible for their small scale set-ups. It is practically inevitable to generalize the experiences to some extent, as it is simply the set-up of the festival to be a conglomeration of many different activities.

Secondly, it is arguable whether or not the hypothesised concepts (themes) 'nature', 'group feeling', 'emotional energy' and 'motivation to return', are actually measured. This study made a first attempt to operationalize these new concepts and is very well possible that the used methods to measure the concepts are not optimal. For instance, the used statements (Likert-items) to measure 'emotional energy' may not capture the concept well. In Collins' theory (2004) emotional energy entails long term emotions rather than momentous short term emotions. The statements used in this study however can be argued to measure the momentary emotions instead. In order to determine the suitability of the used methods further conceptualization and research is needed.

In relation to this is the internal consistency indicated by the Cronbach's alpha of the measured themes. The alpha indicates if the used items (statements) in a scale (theme) measure the same topic. Within science a discussion exists on the acceptable threshold value of the alpha (Tavakol & Dennick, 2011). Generally an alpha greater than 0.7 is deemed acceptable, but in preliminary research an alpha of 0.6 can also be used as threshold (Peterson, 1994). In this study only the scale (theme) 'emotional energy' had an alpha greater then 0.7, the other three scales had an alpha between 0.6 and 0.7. Given that this study is a first exploration, the found alpha's where considered acceptable. This indicates that the used statements per theme did measured the same topic. If a follow-up study were to be pursued, adding more items to the scale would possibly increase the alpha.

On the whole, the methods used in this study show room for improvement and would benefit from further research. Mainly with regard to the operationalisation of the new concepts put forth by the conceptual model. In addition, a comparative or follow-up study could give more insight in the mechanism behind the human-nature connection.

## 8 Conclusions

This study tried to explore the mechanism behind human's connection with nature with the help of the combination of the Biophilia hypothesis and the Interaction Ritual Chain theory. The resulting conceptual framework was applied to the case of Fête de la Nature. From the results of this study the following conclusions could be made, structured along the sub and main research questions.

### Sub questions

#### **What audience did the festival draw and how where they reached?**

The festival drew participants from all age categories. However, most participants of the festival were between the age of 40 and 59 and teenagers did not much participate. On the basis of the percentage of participants being a member of a nature/environmental organisation the participants are presumed to have an affinity with nature. Furthermore, the great majority of all participants, both adults and children, visited the festival for the first time and a relatively high percentage of adults did not know that the activity was also organised in the context of Fête de la Nature.

Most participants knew about the festival activity through friends and family or local media. This indicates that the participants were mainly reached by means of the more direct channels.

#### **What experiences did the participants gain at the festival?**

During the festival nature was greatly experienced, as participants felt in and active with nature. The participants also interacted with other people during the festival to such an extent that a group feeling was experienced by both adults and children. Moreover, the experience of nature and a group feeling were found to complement each other at the festival, meaning that the presence of other people positively influenced the nature experience. The participants were also very enthusiastic about the activity they visited, which can be seen as the generating emotional energy. Finally, the participants expressed a high motivation to return to next year's edition of the festival, supporting the perception of the festival being a positive experience.

#### **What image do the participants have of the festival and what do they think can be improved?**

The participants had a positive image of the Fête de la Nature. The activities were deemed to fit the festival, even by the visitors that were not known with the festival's concept. Also the adults with children thought that the activity they visited was suitable for their child.

A few topics for improvements were raised. The main one concerned the festival's publicity, which is a topic that is already on the agenda of the festival. Additionally, topics for improvement concerned the presence of food, the name of the festival, the importance of children and the need of a reminder.

#### **To what extent do the festival findings follow the hypothesized relationships between the themes?**

The festival findings follow well with the hypothesized relationships. The path analysis showed significant predicting relationships between the participants' experience with nature, their emotional energy and their motivation to return, respectively. Also group feeling showed to be a significant predictor of the participants' emotional energy, however to a slightly lesser extent than the experience of nature.

## Main questions

### **1. To what extent can the combination of the Biophilia hypothesis and IRC theory help understand the ways in which people connect with nature?**

By combining the Biophilia hypothesis with the IRC theory, the interaction with nature and the presumed consequential generation of emotional energy are put centre stage in the manifestation of a connection with nature. From the way the case study was carried out, the interaction with nature played a part in generating emotional energy, even more so than a group feeling did. This finding hints at the significant role that an interaction with nature can play in generating emotional energy. Moreover, it suggests that the manifestation of a connection with nature can be understood in the same way as the manifestation of a connection between people can.

The underlying conceptual model however does need to be worked out more thorough, as the concepts of IRC theory were proven difficult to translate and operationalize in the context of a nature interaction. Furthermore, in this case study the biophilia notion now only played a role in the far background. When a longer time span were studied, the actual manifestation of a chain, the connection with nature and expression of biophilia will play a greater part.

### **2. What do participants experience at Fête de la Nature and in which ways can these experiences contribute to their connection with nature?**

Overall Fête de la Nature was a positive experience for both adults and children. Nature was experienced to a great extent and also positive interaction with other people took place. These two factors were found to lead to the high enthusiasm and energization of the participants, which is seen as an experience of a high emotional energy. Additionally, at this festival the nature experience seems to be of more importance to the participants emotional energy than the experience of a group feeling. The participants also experienced a motivation to return, of which the high emotional energy was found to be a significant predictor.

These participant experiences and the relationships between these experiences correspond well with the hypothesised conceptual model. This leads to the conclusion that this festival has the potential to play a part in the manifestation of a Nature Interaction Ritual Chain and thus a connection with nature.

## 9 Practical recommendations

Besides the theoretical question this thesis aimed to contribute to, it also aims to give constructive and practical recommendations to Fête de la Nature. Based on the theoretical framework and results from this study, the following recommendations can be made.

First of all, it is recommended to continue with the current way of setting up the festival. Even without looking through the lens of the NIRC model the results show that Fête de la Nature was a positive experience for its visitors. The goal of the festival to get people interacting with nature and each other during the festival is realised. The used conceptual model and the fact that the results follow the hypothesis of this thesis, hint at the possibility that the festival even contributes to the connection between people and people and nature. Hence, the festival can be seen as successful.

Nevertheless, some subjects surfaced that might be of value when aspiring to improve the festival. One of them is the seeming absence of recognised symbol at the festival. Initially this study set out to include the role of symbols at the festival, as symbols play a significant part in the IRC theory (Collins, 2004). According to Collins (2004), acknowledged symbols can prolong the feelings of excitement (emotional energy) about an experience, which in turn aids to the manifestation of a chain. The fact that Fête de la Nature is only held once a year makes it possible that participants' emotional energy related to the festival fades over time. Especially when there are no symbols in place to keep up this emotional energy. Therefore, a strong symbolic reminder could possibly help to redraw participants to the festival.

Another remarkable finding on which a recommendation can be made concerns the way festival participants were reached. Improving the publicity of the festival is a topic already high on the agenda of the festival's board, especially when it comes to drawing more people to the festival. The results of this study show that most participants were reached by means of the more direct channels. Friends, family and local media seem to be the used and working channels through which participants know about the festival. This study's used IRC theory supports the idea that direct communication methods work best in activating people (Collins, 2004). Therefore, the recommendation can be made to facilitate the use of these more direct media. Perhaps the festival can support the recruitment done by organisers in such a way that they can invite people to their activity in more direct ways.

Finally, this study included a question to the participants about what they thought could be improved at the festival. Various topics were raised to which a few this study could pick up on. However, some improvements suggested by participants highlight possible important subjects this study did not take into account. These suggestions by the participants are worth paying attention to and could function as another point of departure in the pursuit to improve Fête de la Nature.



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## Appendix

## A. Adult questionnaire

## Vragenlijst belevingsonderzoek Fête de la Nature

### Korte toelichting

De activiteit die u bezoekt is (mede) in het kader van het Fête de la Nature georganiseerd.  
In samenwerking met het bestuur van het Fête de la Nature doet een student aan de Wageningen  
Universiteit onderzoek naar het festival.  
Wij hopen dat u ons wilt helpen bij ons onderzoek door deze enquête in te vullen.

(Mocht u vragen hebben over dit onderzoek stuur dan een mail naar: [marjolein.soethoudt@wur.nl](mailto:marjolein.soethoudt@wur.nl))

Om te beginnen volgen er een aantal stellingen over de activiteit waar u net aan heeft meegedaan.  
Zet een kruisje bij wat voor u het meest van toepassing is.

Activiteit Stellingen	Zeermee oneens	Mee oneens	Neutraal	Mee eens	Zeermee eens
De locatie was goed te vinden	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik voel me hier in de natuur	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik ben met nieuwe mensen in contact gekomen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik heb <u>niets</u> van de activiteit opgestoken	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De activiteit paste binnen het Fête de la Nature	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De activiteit heeft mij energie gegeven	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik heb intensief met anderen samengewerkt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik ben op een intensieve manier met de natuur bezig geweest	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De activiteit duurde te lang	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik voelde me erg bij de activiteit betrokken	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Er hing een fijne sfeer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het was een <u>ongeschikte</u> locatie	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik ben enthousiast over de activiteit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik was mij ervan bewust dat deze activiteit (mede) in het kader van het Fête de la Nature is georganiseerd	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Kunt u de activiteit in uw eigen woorden omschrijven?

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## Vervolg vragenlijst

De volgende vier stellingen zijn alleen van toepassing als u met kind(eren) naar het Fête de la Nature bent gekomen. U kunt dus doorgaan naar het volgende onderwerp als u geen kind(eren) bij u heeft.

<u>Kinderen</u> Stellingen	Zeer mee oneens	Mee oneens	Neutraal	Mee eens	Zeer mee eens
Ik ben voornamelijk voor de kinderen gekomen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De activiteit was geschikt voor kinderen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De kinderen hebben er veel van opgestoken	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De kinderen zijn erg enthousiast over de activiteit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

De volgende stellingen en vragen gaan over uw betrokkenheid bij het Fête de la Nature.

<u>Betrokkenheid</u> Stellingen	Zeer mee oneens	Mee oneens	Neutraal	Mee eens	Zeer mee eens
Volgend jaar kom ik weer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik ga het Fête de la Nature aan anderen aanraden	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volgend jaar wil ik zelf een activiteit organiseren*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

1. Voor het hoeveelste jaar heeft u nu meegedaan aan het Fête de la Nature?

- ☐ Eerste jaar    ☐ Tweede jaar    ☐ Derde jaar    ☐ Vierde jaar

2. Hoe wist u dat het een activiteit van Fête de la Nature was? (u kunt meerdere opties aankruisen)

- ☐ Vrienden/familie  
☐ Buren  
☐ De website/Facebookpagina van Fête de la nature  
☐ De website/Facebookpagina van de activiteit  
☐ Lokale media (krant, blad, tv enz.)  
☐ Ik herkende het logo van Fête de la Nature  
☐ Anders, namelijk

3. Heeft u nog tips voor het verbeteren van het Fête de la Nature?

### Persoonsgegevens

Wat is uw leeftijd?    19 of jonger    20-39    40-59    60 of ouder

☐    ☐    ☐    ☐

Bent u een vrouw of man?

☐ Vrouw    ☐ Man

Bent u lid van een organisatie die zich inzet voor de natuur of het milieu?    ☐ Ja    ☐ Nee

Staat u ervoor open om later uitgebreider antwoord te geven op een aantal vragen? (ca. 30 min)

Ja, dit zijn mijn contactgegevens (tel. nr. of email):

\* Indien u hulp/info wilt, vul dan hier uw email adres in.

## B. Child questionnaire





Hallo, ik zou graag willen weten wat jij vandaag tijdens dit festival gedaan hebt. Zou je daarom deze vragen willen invullen?

Als je iets niet snapt kun je iemand vragen om je te helpen.

Hoe oud ben jij? .....

Teken een rondje om het woord dat bij jou past.

Ik ben een:      meisje                  jongen

Nu komen er een aantal zinnen.

Als jij vindt dat het **waar** is wat er staat, teken dan een rondje om het blij gezichtje 😊.

Als jij vindt dat het **niet waar** is wat er staat, teken dan een rondje om het niet blij gezichtje ☹️.

Als je vindt dat het **een beetje waar is of een beetje niet waar** is, teken dan een rondje om dit gezichtje 😐.

Als je het niet weet, dan teken je een rondje om 'Weet ik niet'.

Dit zijn twee voorbeelden:

	Waar	Beetje waar, of beetje niet waar	Niet waar	
Het is vandaag warm	😊	😊	☹️	Weet ik niet
Het is lente	😊	😊	☹️	Weet ik niet

Nu mag jij rondjes tekenen.

	Waar	Beetje waar, of beetje niet waar	Niet waar	
Ik had zin in vandaag	😊	😊	☹️	Weet ik niet
Ik ben vandaag veel in de natuur geweest	😊	😊	☹️	Weet ik niet
Ik heb nieuwe vrienden gemaakt	😊	😊	☹️	Weet ik niet
Ik heb me <b>niet</b> verveeld	😊	😊	☹️	Weet ik niet

**Nog een paar zinnnetjes**



Ik heb vandaag veel samengespeeld

Waar



Beetje waar, of beetje niet waar



Niet waar



Weet ik niet

Vandaag was een leuke dag



Weet ik niet

Dit is een mooie plek



Weet ik niet

Er zijn hier veel planten en dieren



Weet ik niet

Ik heb veel geleerd vandaag



Weet ik niet

Ik ga aan vrienden vertellen wat ik vandaag gedaan heb



Weet ik niet

Volgend jaar doe ik weer mee



Weet ik niet

1. Wat vond je vandaag het leukst? Kun je dat hier opschrijven?

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2. Was er vandaag iets wat niet zo leuk was tijdens het festival? Ja, wat dan?

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3. Heb je al eens eerder aan dit festival meegedaan?

😊 Ja

☹ Nee

Weet ik niet



Wat heb je daar nog van onthouden?

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4. Heb je dit logo al eens eerder gezien?

😊 Ja

☹ Nee

Weet ik niet



Dat waren alle vragen. Dankjewel voor het invullen!



### C. List of answers to question on improvements

Heeft u nog tips voor het verbeteren van het festival?	
1	Hoe meer hoe beter
2	Activiteiten als boomklimmen, vies worden
3	Misschien wat te eten
4	Later in het jaar als fruit/groenten klaar zijn
5	Evt. meer kraampjes voor hapjes en drankjes en verkoop van bio producten
6	Juiste informatie! De gegevens over deze activiteit stonden onjuist in de krant
7	Deze tuin geen kinderactiviteiten
8	Koppelen aan actuele gebeurtenissen in/over de natuur. Publiciteit duidelijker
9	Nee Prima
10	Ga zo door
11	Meer promoten, weinig bezoekers! 40
12	Betere promo
13	Naamsbekendheid verder verbeteren
14	Nooit van gehoord eerder
15	Wat eten erbij
16	Wat is Fete de la Natuur? Uitleg vooraf
17	Posters in de wijken?!
18	Eventueel meer aandacht in (lokale) kranten/media
19	(Nóg) meer promotie (landelijke media)
20	Een activiteit of meerdere die meer met de natuur zelf te maken heeft/hebben
21	Nog meer natuurbelevingsactiviteiten, rookverbod (niet goed voor de mens en de Aarde)
22	Voor de ponderosa activiteiten: meer met de natuur doen bijv workshopje thee zetten met kruiden uit de tuin
23	Ga zo door
24	Nee, was perfect zo
25	Meer lokaal eten en drinken
26	Gezond eten
27	Meer eten!!!
28	Iets meer activiteiten
29	Mag iets uitgebreider!
30	Prima zo
31	Verbinding met de internationale beweging
32	Lokale groepen erbij betrekken. Er schijnen in veel wijken initiatieven te zijn.
33	Meer mensen activeren
34	Scholen bij betrekken, scouting, BSO struin, dus organisaties met relatie kinderen en natuur
35	Nederlandse naam: vier de natuur. Actief uitnodigen van groepen/kinderen