



# The Meaning of Tree Planting

– A symbolic interactionist understanding of the behaviour of tree planting in the Byron Shire

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Swedish University of Agricultural Sciences, SLU

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## Abstract

As we enter a changed climate the understanding of what motivates and sustains participation in pro-environmental behaviours has never been more important. Planting trees to reforest vast areas of the world has the potential for numerous ecological and human benefits. Tree planting has not been taken account for in research into pro-environmental behaviours, why they arise where they do, and what motivates the individual participation in them. Data was collected from interviews with dedicated participants engaging tree planting as an ongoing behaviour. Using symbolic interactionism theory as a lens for this research, the individual and social meaning making and perspectives on the local influence for the manifestation of the behaviour were analysed. This approach was used to answer the main question of why people in the Bryon Shire participate in tree planting.

The Symbolic interactionist perspective and methodological consequences reveal the links between meaning, the application of it, and motivation to engage in the behaviour of tree planting. A shared understanding of the meaning of tree planting and supportive social interactions exists among the participants simultaneous to an individual meaning that is personally formed through the participants own desires, needs, objectives and views of themselves. The meanings are created socially and individually and contribute to the prevalence and maintenance of this behaviour in the Byron Shire. The social context and local environmental ethos have also been influential in the formation of the behaviour.

*Keywords:* Tree planting, reforestation, pro-environmental behaviour, symbolic interactionism, meaning, Byron Bay.

# Table of contents

<b>1. Introduction .....</b>	<b>10</b>
1.1. Background .....	10
1.2. Problem formulation .....	14
1.3. Research aim and empirical focus .....	14
1.4. Research questions.....	14
<b>2. Theoretical Framework .....</b>	<b>16</b>
2.1. Symbolic Interactionism.....	16
2.1.1. Epistemological position .....	17
2.1.2. Central concepts.....	17
2.2. The three premises of symbolic interactionism and their application to the present case .....	18
2.2.1. The three premises.....	19
2.2.2. The application of the three premises to the present case.....	20
<b>3. Research Design and Methodology .....</b>	<b>23</b>
3.1. Empirical data collection setting .....	23
3.2. A qualitative procedure and symbolic interactionism .....	24
3.3. Methodology .....	25
3.3.1. Data collection: Interviews and information rich cases.....	25
3.3.2. Data collection: Participant observation .....	26
3.4. Data analysis .....	27
3.5. Methodological reflections .....	28
<b>4. Findings and analysis .....</b>	<b>30</b>
4.1. Sub-research questions 1 & 2: What does tree planting mean to the participants and how has this meaning been socially created and formed from social interactions?.....	30
4.1.1. The shared meaning – trees for an environmental purpose.....	31
4.1.2. How has this meaning been socially created and formed from social interactions? 32	
4.2. Personal meanings.....	33
4.2.1. Tree planting means social connection .....	33

4.2.2.	How has this meaning been socially created and formed through social interactions? .....	36
4.2.3.	Tree planting means connection to country.....	37
4.2.4.	How has this meaning been socially created and formed from social interactions? .....	38
4.2.5.	Tree planting means anti-consumerism .....	39
4.2.6.	How has this meaning been socially created and formed from social interactions? .....	40
4.2.7.	Responsibility to future generations.....	41
4.2.8.	How has this meaning been socially created and formed through social interactions? .....	42
4.2.9.	Tree planting means doing visible actions.....	43
4.2.10.	How has this been socially created and formed from social interactions? .....	44
4.3.	Sub-research question 3: How does the social context of The Byron Shire contribute to the manifestation of this behaviour? .....	45
4.3.1.	The deforestation and reforestation history .....	45
4.3.2.	Current social validation for tree planting .....	46
4.4.	Summary of findings and analysis.....	48
<b>5.</b>	<b>Discussion.....</b>	<b>49</b>
5.1.	Sub-research question 1 & 2.....	50
5.2.	Sub-research question 3 .....	52
5.3.	Main research question .....	54
<b>6.</b>	<b>Conclusion .....</b>	<b>55</b>

## List of figures

Figure 1 Participants at a planting event, March 07 2020.....	23
Figure 2 Summary of Interview Participant Information.....	25



## Abbreviations

PEB	Pro-Environmental Behaviour
SI	Symbolic Interactionism
SLU	Swedish University of Agricultural Sciences
NGO	Non-Government Organisation

# 1. Introduction

Section 1.1 provides a background of the topic of this study. Section 1.2 presents the problem formulation followed by the research aim and empirical focus in 1.3. Section 1.4 presents the research questions this study will address.

## 1.1. Background

To put deforestation into a stark figure, since humans began cutting down forests the earth has lost 46 percent of trees (Crowther et al. 2015:01). Much of this deforestation has undoubtedly allowed humans to expand and thrive as a species where cutting down forests has provided space for expansive agriculture to feed millions, for the acquisition of commodities, for mining of minerals we use every day, and for the urbanisation of expanding populations. However, deforestation is occurring at an alarming rate which contributes to greenhouse gases, soil degradation, illegal logging and forest product production, monoculture farming, the removal of indigenous livelihoods and disregard for their occupancy within such forests, and a loss of biodiversity. All the while reducing the quantity of carbon dioxide being absorbed as one less tree is one less carbon dioxide sequestering organism.

In response to the rapid rate of deforestation, its harmful effects, and the current climate emergency, planting trees on previously cleared forest land and close to existing forests, known as reforestation, is argued as an essential strategy to counter deforestation, mitigate climate change, and preserve ecosystems (UNFCCC Article 5 2015). In terms of climate mitigation, the carbon storage (sequestration) of new forests is well known (Locatelli et al. 2015, Bastin et al. 2019, Canadell & Raupach 2008, Griscom 2017). The carbon storage of forests has led to reforestation being propounded as “among the most effective strategies for climate change mitigation” (Bastin et al. 2019). Research by Bastin et al (2019) that mapped out the global potential for tree coverage identified that even while taking into consideration human occupancy of land, the earth could support an additional 0.9 billion hectares of forests equating to roughly half a trillion trees and the

potential to store the equivalent of 25% of the existing atmospheric carbon (Bastin et al 2019). However a counter argument to this being a viable option for climate mitigation, which is important to note, is the unknown element of this land being publicly or privately owned (Bastin et al 2019) and the critique of the carbon storage modelling used (Skidmore et al. 2019).

Even if it were not conducted globally at the scale Bastin (2019) encourages, reforestation is still presents a lower-cost and natural carbon storage solution compared with high technology carbon storage solutions (Griscom et al 2017). Aside from mitigation for carbon storage, reforestation contributes biophysical cooling (Anderson et al 2011), regional climate regulation in arid regions (Paavola 2008), flood control (Bradshaw et al 2007), coastal protection when mangroves are planted (Adger 1999), habitat connectivity to facilitate the migration of species (Brockerhoff et al 2006 cited by Locatelli et al. 2015), and can enhance the resilience of ecosystems and species in the reforested area (Hall et al. 2011, Evans et al. 2012).

Worldwide we are seeing largescale projects such as The Bonn Challenge of 40 countries pledging 150 million hectares by 2030, and the world's largest tropical reforestation project in Brazil lead by Conservation International to reforest 30,000 hectares within the next six years. Non-government organisations such as We Forest have funded the restoration of 183,000 hectares (25,540,743 trees) across central America, Africa, and India, and One Tree Planted who have planted 1.3 million trees across the world through donations.

The actualisation of these projects would not be possible without thousands of dedicated volunteers and many large and small scale reforestation projects rely on the participation of volunteers to plant the trees as large groups of unpaid people enable larger, faster, and more cost-effective impact than otherwise achievable. For example, a record setting 800,000 volunteers planted 49.3 million trees in India in July 2018, an effort unattainable if paid or if carried out by a small team. The Orangutan Information Centre in Indonesia involves hundreds of local community volunteers (often 500 at one time), some being employed in maintenance, to plant diverse native Sumatran trees to reforest palm oil plantations in Indonesia (1,647,853 to date). In Australia, the organisation Reforest Now utilises the volunteer time of over 100 volunteers to grow trees in the nursery and plant during community planting events. For three years now, over 100 and up to 200 people give their free time every weekend to plant trees for up to six hours at a time.

The need for public participation in environmental activities has been widely voiced (Propst 2000, Cordell & Betz 2000, Bruyere 2007). Knowing why people are willing participate in their free time, what motivates them, and how to maintain continued engagement of existing participants is insightful knowledge that can be helpful to the

cause of increased and sustained environmental participation.

Addressing these questions has been carried out within psychology, social-psychology, and environmental communication research.

Within psychology and social-psychology, pro-environmental behaviours, or PEB, is a growing research areas to address participation in behaviours that have a positive environmental effect (Kurusu 2015, Chao 2012). While there is no singular definition of what constitutes a PEB as the behaviours can be widely ranged, tree planting can be categories as a PEB as it “contributes to environmental conservation or enhancement of positive impacts” (Kurusu 2015). Despite the environmental potential of tree planting it has never been studied as a singular PEB.

Prominent PEB models and theories utilise combinations of factors such as values, beliefs, goals, identity, norms, motivation factors, internal and external factors, institutional factors, education, place-attachment and combine survey data into statistical modelling to understand, predict, and encourage the behaviour under study (Kurusu 2015). The influence of social context, social norms, the social spheres individuals who partake in PEBs are in has been noted as particularly prominent in understanding why people do PEBs and motivates continued participation (Quimby & Angelique 2011, Fritsche, Barth & Jugert 2018, Dono & Webb 2009). However these approaches have been criticised for their quantitative approaches and pre-determined set of factors that are tested for as it treats behaviours as shaped by a combination of factors playing upon the individual (Shove 2010, Hargreaves 2010). These criticisms assert that pre-determined factors in any array of combinations exclude the process of internal meaning-making from the participants perspective and reduces the complexity of behaviour to pre-determined factors (Shove 2010, Hargreaves 2010).

Within the field of environmental communication, research has addressed participation in environmental behaviours through communication and social constructivism approaches and analysis. For example, addressing the impact of rhetoric on participation (Dannenberg et al 2012), addressing different discourses that shape participation in a social group (Easton et al 2009), and the symbolic significance of recycling through a cognitive sociological perspective (Markle 2014). As a social science approach to the environment, environmental communication utilises many theories and models to understand interactions with the environment including but not limited to critical discourse theory, frame theory, social constructivism, and symbolic interactionism. What environmental communication research realises is the immense potential of language, rhetoric, perspectives, and the construction of reality on our behaviours and reasons when we act toward the environment.

The recommendation for future research to understand pro-environmental behaviours has come from reviews of both psychology and social science literature and recommends a qualitative approaches that looks closely at the particular social context where the behaviour occurs, and allows for meaning and narratives from the participants to emerge (Shove 2010, Hargreaves 2010). This approach will enable the ‘why’ to emerge with rich narrative accounts that allow an analysis to go deeper into the value of the behaviour, the social context and the significance from the participants perspective that a quantitative study cannot achieve.

In this study, the theoretical and methodological framework of symbolic interactionism is used to understand the pro-environmental behaviour of tree planting. Specifically for this study, the theoretical application of symbolic interactionism is used in this to understand why people engage in tree planting by looking at the meaning of tree planting for the participants and the social context.

Utilising symbolic interactionism adheres to the previously stated advice for psychology and social psychology research in multiple ways. Symbolic interactionism places meaning at the forefront of an investigation into behaviour stating it is often “taken for granted and pushed aside” in psychology and quantitative approaches where it is treated as a “mere neutral link between the factors responsible for behaviour”(Blumer 1969). Symbolic interactionism is recognised for the appreciation of the participants perspective (Wellman 1988) where the encouragement of a qualitative approach with detailed accounts of meaning does not reduce complexity of their perspective (Blumer 1969). This theory also focuses on the specific context of the behaviour and the social spheres it exists within as crucial to understanding a behaviour. Behaviours manifest from meaning and interactions and therefore the context cannot be undervalued (Blumer 1969, Shibusaki 1988).

From an environmental communication perspective, utilising symbolic interactionism addresses three core ‘principles’ of environmental communication as a research area of language as “symbolic action”, “our beliefs, attitudes, and behaviours relating to nature and environmental problems are mediated by communication”, and “the public sphere emerges as a discursive space for communication about the environment” (Cox 2013). Addressing language and actions as symbolic allows for the realisation that communication is powerful in shaping ideas and the meaning of the environment and thus impacting our actions. When used as a theory in environmental communication, symbolic interactionism enables a reflection of the communication process and construction of reality by the person/s in the study and ourselves as a researcher.

## 1.2. Problem formulation

Planting trees is a pro-environmental behaviour with immense environmental and social potential in reducing greenhouse gases from the atmosphere, enhance biodiversity, and contributing to land restoration. Despite this environmental potential, tree planting has been unrecognised in literature on why people engage in pro-environmental behaviours. This research addresses this gap by addressing why people engage in tree planting. The application of symbolic interactionism in this research adheres to recommendations on pro-environmental behaviour research by appreciating the participants perspective, looking closely at the meaning of the behaviour of tree planting, and how the social context has contributed to the manifestation of this behaviour.

## 1.3. Research aim and empirical focus

The aim of this research paper is to understand why people participate in the behaviour of tree planting and the impact of social context on the behaviour through a symbolic interactionist perspective by applying the assumptions of symbolic interactionism, as outlined by Blumer (1969).

The empirical focus of the research are the tree planting events held in Byron Bay Australia by the NGO Reforest Now. These events are held weekly and invite hundreds of volunteers to plant upwards of 5000 trees over a period of six hours at various locations within the region. Many of the volunteers attend weekly and take part in conversations with each other and the organisations staff about reforestation, trees, and forest ecology. These tree planting events and the participants of them are the foundation for the research and source of data collection.

## 1.4. Research questions

This research has one main research question (MRQ) answered through three sub-research questions (SRQ).

MRQ: Why do people in The Byron Shire engage plant trees?

SRQ1: What does tree planting mean to the participants?

SRQ2: How has this meaning ben socially created and formed through social interactions?

SRQ3: How does the local and social context of The Byron Shire contribute to the manifestation of tree planting?

## 2. Theoretical Framework

This chapter presents the theory the research is based upon. Section 2.1 presents the theory followed by the epistemological position of the theory in 2.1.1, central concepts to the theory in 2.1.2 and the three premises the theory rests on in 2.1.3. The chapter closes with the application of the three premises to the present case in the research in section 2.2.

### 2.1. Symbolic Interactionism

The use of theory in qualitative inquiries provides a lens for the inquiry (Cresswell & Cresswell 2012). Symbolic interactionism is the theory used in this study to understand why people engage in tree planting, the meaning of the behaviour for the participants, and the influence of the social context on this behaviour.

Symbolic interactionism is a sociological theory that focuses on interactions between people as infused with meaning making and interpretation of ourselves, others and things, that guides action and behaviour (Blumer 1969). Meaning is not inherent in anything, but rather we assign meaning through interaction and interpretation and then participate in the assigned meaning by going along with it in a shared way – therefore making meaning an intersubjective process (Blumer 1969). Applying symbolic interaction produces detailed accounts of interaction, action, and human life in the natural setting they exist within.

Symbolic interactionism was originally conceived by George Herbert Mead and coined in popular terms by his student Herbert Blumer in his 1969 work “Symbolic Interactionism: perspective and method”. Because of slight epistemological and theoretical divergences between Mead and Blumer I have chosen to base the theoretical framework of this research off the work of Blumer. However, the central concepts of symbolic interactionism, which are elaborated on below, have been informed by both Mead’s original work “Mind, Self and Society” (1934), Blumer’s 1969 work, as well as contemporary symbolic interactionist authors who have further discussed the meaning and application of the central concepts (Reitzes 2010, Hewitt 2002, Herman-Kinney & Vershaeve 2003). Contemporary symbolic interactionist researchers who utilise Blumer’s



framework have been incorporated into the three assumptions and their methodological consequences as their commentary or elaborations on Blumer's work bring a modern nuance to symbolic interactionism that aids my inquiry.

### 2.1.1. Epistemological position

The epistemological position is the general philosophical orientation about the world and the nature of research brought into a study by the researcher (Cresswell & Cresswell 2012). The position of this study mirrors the epistemological position held by symbolic interactionism.

In a symbolic interactionist approach the empirical focus, as where to gain knowledge through direct observation and experience, is the social world. Blumer explained the framework "not as a philosophical doctrine, but as a perspective in empirical social science"(Blumer 1969:21). The empirical world is known and understood as a "socially produced group world" and is where observations and knowledge of the behaviour should come from (Blumer 1969:69). As an approach designed to yield verifiable knowledge of human group life and human conduct (Blumer 1969:21) it does this by looking toward and within group-life world. In this way, it understands behaviour as coming actively and consciously from within the social, rather than say, looking toward outside factors playing upon people to cause behaviour. And in retaining its pragmatic roots in this quest to understand the empirical social world, one using symbolic interactionism must stay true to being grounded within the social world while being open to ones ideas of the problem being transformed throughout the course of the inquiry as our understanding of the social world and behaviour develops (Blumer 1969:40).

### 2.1.2. Central concepts

To understand the three premises of symbolic interaction and which guide my research, and have shaped the research questions, it is firstly necessary to elaborate on a few central concepts of symbolic interactionism.

The concept of the symbol is foundational to symbolic interactionism. A symbol includes signs that stand for other things, as well as language which are verbal and written symbols (Mead 1934). If symbols are not natural in nature, such as smoke is a symbol for fire, they are created and controlled by the organism that have learned to respond to it (Hewitt 2002). The meaning of the symbol is created socially as a successful symbol is

publicly understood. We act toward the symbol based off this meaning and thus participate in the meaning of the symbol and symbolic interactionism when we use symbols with other people. Behaviours can also be symbolic.

*“Responses to one another depend on the interpretation of symbols rather than on the enactment of responses they have been conditioned to make. Thus they engage in symbolic interaction” (Hewitt 2002:02).*

Symbols transform the nature of the environment in which we live and make it possible for behaviour and attitudes to be reproduced by others (Hewitt 2002:02).

The concept of the Nature of Human Action explains human action as consciously guided and constructed, as opposed to us merely releasing actions in response to a number of factors upon us (Blumer 1969:15). In other words, we consciously act and have a cognitive process we can become aware of rather than us being reactionary beings who respond without choice and cognition. Blumer states this is in sharp contrast to the views in psychology and socio-psychology at the time of Blumer’s writing that sought to understand behaviour by tracing it back to factors seen as playing upon the individual (such as motivation, attitudes, values, status, economic) and in which we react to. Blumer insists this view of behaviour ignores the “vital processes of interpretation in which the individual notes and assesses what is presented to him” to inform their behaviour (Blumer 1969:15). This criticism came in a time before research understanding into pro-environmental behaviours began yet it echoes (albeit in the past) current criticisms of relying on causal factors to explain and predict behaviours and pro-environmental behaviours.

In order to engage in social interactions meaning must be assigned to the behaviour or symbol which guides how we act. But as we are consciously guiding our actions there exists a process where the person notes and assesses what is presented and then maps out lines of overt behaviour in social interactions. Within this mapping of overt behaviour we include our personal wishes and wants, our objectives, the anticipated reaction and actions of others, and our image of ourselves (Blumer 1969:15).

## **2.2. The three premises of symbolic interactionism and their application to the present case**

Having defined some core concepts of symbolic interactionism which are used in this study it is necessary to now introduce the three premises of symbolic interactionism (2.2.1) and their application to the present case (2.2.2)

### 2.2.1. The three premises

Blumer articulated his conceptual perspective of symbolic interactionism into these three premises the theory “rests” upon (Blumer 1969:02) and which are often used as the foundation or starting point in research applying symbolic interactionism to understand a behaviour in the empirical social world where it occurs (Reitzes et al 2010, Grecas & Libby 1976, Stryker & Vryan 2006).

Firstly, human beings act toward things on the basis of the meaning that the things have for them. The meaning things have, things referring to inclusively everything we note in our world including physical objects, ideas, and actions (tree planting in the current study), define and shape how people understand what it means to engage in the action. The meaning is central in its own right, to ignore the meaning in favour of factors alleged to produce the behaviour is seen as a grievous neglect of the role of meaning in the formation of behaviour and falsifies the behaviour under study. (Blumer 1969:03). Secondly, the meaning of such things is derived from or arises out of the social interaction that one has with ones fellows. It is the process of interaction between people in the context of the act or object where meaning is assigned (Blumer 1969:04). Actions thus are seen as a process within social interaction (Blumer 1969:55) that creates a shared social meaning. However, the use of the meaning is not a simple application of the meaning derived, which leads to the third assumption that these meanings are handled in, and modified through, an interpretive process used by the person in dealing with the things he encounters. We are not merely responding, but are constructing the behaviour and this has come about from an interpretative process that is transformed and revised over time.

These assumptions of symbolic interactionism provide a theoretical framework that recognises the actors “idiosyncratic way of reacting to a situation” (Carter & Fuller 2016) and rejects generalisations of reactions to a situation based on factors, such as attitude and motives, that ignores the meaning actors assign, their interpretation, and the social context (Blumer 1969). This appreciation of the actors viewpoint framed contextually means that behaviour is understood as influenced by both the social and personal factors. Symbols and actions, whether physical or non, hold meaning of which mediates behaviour, and is influenced through interaction with others in the social context and in the personal meaning making interpretative process.

## 2.2.2. The application of the three premises to the present case

To understand tree planting through symbolic interactionism the foundational premises of the theory must be applied to the case. Here I apply the three premises and unpack them in relation to tree planting and the current social context it exists within.

Premise 1: *Human beings act toward things on the basis of the meaning that the things have for them Or Human beings do an action on the basis of the meaning it has for them.*

Application of premise 1 to the present case: Premise 1 led to research question 1 “What does it enacting tree planting mean to the participants?”. Applying this premise and answering sub-research question 1 means to see tree planting as holding meaning for the participants in which the participants enact tree planting because of.

In symbolic interactionism, behaviours can hold several meanings. There can be both a shared socially agreed upon meaning and personal meanings for each participant. We can act on the basis of both (Blumer 1969). To decipher the meaning of tree plantings for the participants I will take the advice of Herman-Kinney and Vershaeve (2003) for symbolic interactionism methodology and ask what is important about the behaviour and what is and real about the behaviour. Deciphering the importance of it can be directly asked and can be understood through the analysis when themes arise from the conversation. Deciphering what is real about the behaviour will require the participants to explain what it is and their experience of it. Deciphering what is real also requires me to take their perspective rather than assuming what it is like to enact the behaviour for them.

Additional ways to decipher meaning come from a synonymic way of understanding meaning as significance, value, worth, and what the point of it is. The participants will be asked on what they believe is significant about tree planting, why it is important, why they came to do it, and it’s role in their lives. In the analysis when looking for meaning I will look for repetition in responses, themes which arise, and emotional language used when talking about the behaviour and its importance and significance. Throughout this I must remember that as a researcher I must place myself in the world of meaning rather than come with preconceived ideas of the meaning and look for confirmation. As Blumer notes “people act toward things on the basis of the meaning that these things have for them, not on the basis of the meaning that these things have for the outside scholar” (1969:51). The social spheres of interaction where the meaning is derived from is elaborated on in premise 2.

Premise 2: *The meaning of such things is derived from or arises out of the social interaction that one has with ones fellows.*

Application of premise 2 to the present case: The meaning tree planting holds for the participant does not emanate from the behaviour but rather it is the process of interactions between people in the context of tree planting where the meaning is assigned out of the ways in which the other persons act toward tree planting or act toward the person regarding tree planting.

Sub-Research question 2 “how has this meaning been socially created and formed from social interactions?” was devised from this premise. To answer it will mean to follow on from premise 1 and inquire into the social interactions the participants have had with others in the context of the tree planting, when referring to tree planting in conversations, and what it is like for them talking about tree planting with others. Various social spheres constitute the “context of the act” and include the physical space where volunteers congregate to planting trees usually occurring on cleared rainforest land the physical social space of the nursery where the trees are grown, in the various social spheres of the participants where tree planting is discussed, and in non-physical spaces including online communities, forums, and websites where tree planting is discussed.

In these spheres, the “checking, bending, and transformation of action” occurs as the meaning of the act changes over time (Blumer 1969). Therefore, it is necessary to view meaning making within these spheres as a “moving process” rather than one-time occurrence of assigning meaning (Blumer 1969:53) and be open to the changes of meaning of this behaviour within these spheres over time. Changes in meaning can include the fluctuation of acceptance, questioning, confliction, and cooperation of tree planting that happen over time. Again here, I must take the perspective of those involved as Blumer writes, “it is the researchers job to ascertain what form of interaction is at play instead of imposing some pre-set form of interaction” (1969:53). This will mean to not assume what interactions have caused or continue to cause the meaning making, and not to assume where the interactions take place in which the participant talks about tree planting and thus engages in social interactions that can contribute to the meaning making.

Premise 2 also influenced sub-research question 3 “How does the social context particularly of Byron Bay contribute to the manifestation of this behaviour?” because of my interest of the way the wider local community has been instrumental in contributing to this behaviour. This question expands upon the idea of socially produced meaning and behaviour but looks more closely at the regional influence. The local community of Mullumbimby within Byron Bay are unique social regions and are known as the “birthplace of environmental awareness in Australia” (Regional Development Australia-Northern Rivers NSW, 2010a as cited by Ward & Vuuren 2013:76) where ideals of sustainability and environmentally conscious ways of life are standard and the norm. To

address research question 3 I will inquire beyond the immediate social sphere of the volunteers and organisation where the behaviour takes place and into the wider community and how it has been instrumental in contributing to the manifestation of this behaviour.

*Premise 3 These meanings are handled in, and modified through, an interpretive process used by the person in dealing with the things he encounters.*

The concept of the nature of human interactions relates closely to this premise. We are not merely responding to a socially created meaning and acting accordingly but there is an interpretive process individually where the meaning may have been transformed to suit our personal wishes and wants, our objectives, the anticipated reaction and actions of others, and our image of ourselves. Meanings are flexible. As noted in premise 2, meanings can change socially. This premise sees meanings as flexible through a personal interpretive process.

The application of this premise into research has been criticised for the difficulty of seeing, knowing, or hearing a persons internal interpretive process (Kitsuse 2009). In this research, the application of this premise is not a directly aligned research question as with premise 1 and 2. This premise is applied through recognising the agency of the participants where they have assessed the meaning of tree planting formed socially and have had a cognitive process of interpretation and may have dealt with the socially agreed meaning in a flexible manner such as assigned their own meaning in addition to the social meaning. In practical terms, this recognition will be done through inquiring into the participants perception of tree planting and how this has changed over time since beginning their participation; if and in what way their attitude toward the behaviour has changed; in what way the behaviour has become part of their lives and if this has changed during their participation; and what they get out of it – what the objectives they hold within the behaviour are. Inquiring into this gives room for personal meanings and attitudes to emerge so as to not be fixed upon understanding the socially agreed and shared meaning. Through the interactions with others in the social context of tree planting on the planting sites and in conversations regard tree planting, the participant understands the common and shared meaning but may modify and adapt it due to their own objectives and image of themselves. The participants play an active role in co-creating a shared meaning and including their own personal aspects.

## 3. Research Design and Methodology

This chapter outlines the research design of the study. It starts by presenting the setting for the data collection of interviews and observations. Section 4.2 presents the methodological consequences of a symbolic interactionist approach and the methodology of data collection. In section 4.4 the methodology for data analysis is presented and the chapter concludes with methodological reflections in 4.5.

### 3.1. Empirical data collection setting

Data collection for interviews and participant observation took place at two planting events on the 7<sup>th</sup> and 14<sup>th</sup> of March 2020 on properties within the Byron Shire, Northern NSW, Australia.

These properties where the plantings are held hold ecological importance for reforestation as remnant rainforest fragments are identified on these properties and plantings are held to connect fragments to support long term survival of the rainforest. All properties planting on were once rainforest prior to agricultural and cedar logging clearing that ceased in the 1970s. The planting events are organised by local NGO Reforest Now. This organisation founded in 2017 with the aim of reforesting cleared rainforest land and protecting endangered tree species. Through the tree planting events and the nursery growing days the organisation involves hundreds of volunteers who help to grow and plant the trees. Through the events they hope to raise awareness of the importance of the rainforest and involve the community in conservation. The planting events are held weekly at various cleared land properties between 10am-4pm. They are open to the public and announced via the organisations facebook and website. During the events the attendants plant between 1000-5000 trees which are grown by the organisation and the contributing volunteers. The events are attended by up to 100 volunteers many of whom come weekly since the establishment of the organisation. The data collection for interviews was carried out after the planting when food and coffee is supplied.

*Figure 1* Participants at a planting event, March 07 2020. Photo by Zia Flook



### 3.2. A qualitative procedure and symbolic interactionism

Symbolic interactionism is a theoretical framework with methodological implications. For symbolic interactionism, behaviours are seen as an intersubjective and interpretive process of assigning meaning and acting in accordance with such meaning. We interact socially and construct meanings of things, objects, and actions (premise 2) and act upon those meanings (premise 1) but we are also individually interpreting meaning (premise 3) and so we are not automatically responsive creatures but instead we are actively interpreting and constructing meaning, and responding on a personal and social level.

To understand this intersubjective meaning in the social sphere under study and obtain detailed accounts of interaction, action, and human life within it, Blumer advocates for a qualitative procedure, and directly opposes quantitative procedures such as measuring variables that influence the behaviour (Blumer 1969, 1956). While the latter was common of behaviour studies in the time of Blumer's writing, Blumer discourages quantitative approaches as they do not see behaviour and life through "the eyes and experience of the people who have developed the activity" (1956:690) thus reducing its complexity and how it is experienced. Seeing it through their eyes and using methods that allow



meanings to emerge provides richer, deeper accounts of the social world than what is available in a quantitative approach. As my research questions directly correspond to Blumer's premises of symbolic interactionism it is necessary to follow the recommended procedure and carry out a quantitative research design. The research questions require elaboration and the space for expression, and so, I have chosen methods of interviews and participant observation as they reflect this need. Additionally, a quantitative approach that puts meaning and the 'how' and 'why' of behaviour at the forefront of an investigation into pro-environmental behaviour adheres to the previously stated advice for the progression of pro-environmental behaviour research to move beyond variables, models, and frameworks utilising causal factors.

### 3.3. Methodology

The methods I used for data collection were interviews and participant observation. Data collection was conducted over a six week period where I lived in Mullumbimby where the planting events occur.

#### 3.3.1. Data collection: Interviews and information rich cases

Eight semi-structured interviews were conducted. Six face-to-face and two via skype due to social distancing recommendations following the COVID-19 outbreak during my research period in Mullumbimby. Data collection of face-to-face interviews took place after two tree planting events. An interview guide was used with questions and prompts corresponding to each research question and the interviews were recorded and transcribed automatically using Otter phone application. Purposeful sampling for "information-rich cases" (Patton 1990) was used to identify interviewees who are knowledgeable and experienced and who can contribute a significant amount to the research with willingness to answer each question. In this case, information rich cases were participants who had been attending the planting events at least twice a month for a minimum of six months and who showed a willingness to elaborate on their participation. Thirty people were identified as fitting this criteria from casual conversations with participants at a tree planting event in early March 2020. I asked for willingness to participate in an interview reducing the number to twelve interviewees and time constraints for data collection further reduced this to eight interviewees. Open ended questions allowed the respondents to openly share their views and for a fluid conversation to cover all three research questions while maintaining the ability to elaborate on any comments or perspectives I saw as relevant or fascinating for this research. A summary of interview participant information is shown in Figure 2.

Figure 2 Summary of Interview Participant Information

Participant	Age	Local?	Interview	Experience in the behaviour
1	32	Yes +9 years	1 hour	Attending plantings twice a month since establishment. Volunteering at the nursery.
2	36	Yes since birth	1 hour	Attending plantings twice a month since establishment. Volunteering at the nursery.
3	31	Yes since birth	45 Minutes	Attending plantings every week for 7 months.
4	29	Yes +4 years	50 Minutes	Attending plantings once a month for 9 months.
5	36	Yes since birth	1 hour	Attending plantings twice a month since establishment. Volunteering at the nursery.
6	35	Yes +3 years	1 hour 30 minutes	Attending plantings twice a month for 8 months. Volunteering at the nursery
7	41	Yes since birth	1 hour 20 minutes	Attending plantings twice a month since establishment. Volunteering at the nursery.
8	28	Yes since birth	1 hour 10 minutes	Attendings plantings since establishment.

### 3.3.2. Data collection: Participant observation

Participant observation, being the “method in which the observer participates in the daily life of the people under study” (Becker & Geer 1957) was initially planned to incorporate participation in eight community attended planting events. I attended two planting events and took notes from observations and conversations. The remaining six planting events were closed to the public following the COVID-19 outbreak. Blumer advocates the researcher develops “close and full familiarity” with those in the social sphere under study by watching and participating in the life as it flows and acquiring firsthand knowledge and experience of the behaviour or situation and an understanding of the meaning of local words and language and expressions (1969:37). Participating in tree planting allowed me to gain a greater awareness of the behaviour, as opposed to understanding it only through accounts in interviews, and to compliment the interview data with casual comments, conversations, and behavioural observations, with the same interviewees in situ. Despite being only a fraction of the planned observation amount, this experiential data provided a ‘feeling state’ of the meaning of volunteering and the local

communities attitudes toward it that would not have been possible to obtain purely through interviews.

### 3.4. Data analysis

The data analysis procedure followed the Cresswell & Cresswell (2018) procedure, as follows.

Step 1. Organise and prepare the data for analysis. As the interviews were automatically transcribed using Otter iPhone software my first step was to check these transcriptions for accuracy. All eight transcripts were read through individually while listening to the audio recordings to inspect for accuracy. Mistakes in the transcriptions, such as the Australian accent being misunderstood, were corrected. All questions, prompts, and comments were recorded in the interview. This step was fundamental for reliability in the data collection procedure (Cresswell & Cresswell 2018). The field notes during the participant observation were typed up and dated.

Step 2. Read or look at all the data. All transcripts were read through, first individually twice and then all together three times to get a general sense of the information and an “opportunity to reflect on the overall meaning” (Cresswell & Cresswell 2018).

Step 3. Start coding all of the data. The first step of coding was defining the coding categories. The categories were based off the three research sub-questions with the headings and description of:

1. Meaning of the behaviour of reforestation (M),
2. Socially created meaning (SCM)
3. Local context of Byron Bay (BB)

The second step was highlighting corresponding data for each category. Coding for meaning was carried out first. Meaning is not always obvious but through identifying repetitive phrases and topics, metaphors, and listening to where and how emphasis is placed on topics and reactions themes for the meaning for each participant emerged. The category of SCM was based off mentions and discussions of all social spheres brought up in relation to tree planting or talking about it. Going deeper into the local region social sphere and coding for BB sought out mentions of the area, the attitudes of the local community, the history of the region, and stories that are passed through generations and among the community about the rainforest.

Step 4. Generate a description and themes. When coding for the category of meaning, themes became apparent after reading through the transcripts three or four times. Each transcript had one or two overarching themes for meaning, or 'meaning themes'. Themes were also generated for sub-research question 2 and 3. The meaning themes were analysed across all cases to determine if there are any shared meanings.

Step 5: Representing the description and themes. Lastly, I decided how the description and themes will be represented in the qualitative analysis - as a narrative passage to convey a detailed presentation of the theme/s present for each category in each interview and illustrated through quotations and observation notes.

### 3.5. Methodological reflections

Multiple levels of potential bias that comes with qualitative research need to be clarified. Symbolic interactionism and the method of conducting interviews require participants to verbalise meaning which shapes meaning by the use of words, a symbol. The conveyed message can be only be so well conveyed as that of the choice of words which aren't always chosen perfectly or articulated well known as an "obstacle to respondents articulation of their particular truth" (Holstein 2011:03). As I am also within the interview collaborating on the formation of the responses in even small ways, I too am influencing this articulation. Additionally, symbolic interactionism requires the researcher to understand from the participants perspective rather than attempting to be a detached, unbiased, outsider (Blumer 1969). While also being able to step back and analyse according to the assumptions of the theoretical framework and so the theory has been argued to somewhat "permit" a form of researcher bias (Huber 1973:274). Also, there is also no guarantee that my understanding of the words chosen by the participants is the same as my own.

Blumer's symbolic interactionism encourages an intimate familiarity of the individual and their interpretation through, ideally naturalistic observations, and the ability to understand language and local axiom (Blumer1969). According to Blumers' writing, a lack of first-hand acquaintances in the research setting can cause a pre-established picture of the area to be overlaid onto it that inhibits the nature of the people and their world from being understood (1969:36). While I have the advantage being familiar with the way of life and reforestation in the Byron Shire I am relying on a briefly acquired familiarity with the participants. I do however have an established understanding of the way the local community speaks, the idioms and local dialect. Another point to make clear is that the participants were chosen for 'information rich cases', rich with experience in the behaviour of tree planting. It therefore does not represent every perspective or those who

have recently started doing it. Conclusions made from this study are made with the acknowledgement that it represents the interpreted opinion of a select few participants and that the behaviour under study is context based. It does not answer reasons for tree planting elsewhere in the world.

## 4. Findings and analysis

This chapter presents the findings and discussion of the empirical data collected through interviews and participant observations. The findings are presented for sub-research questions 1 and 2 in succession and sub-research question 3 independently.

### 4.1. Socially created meanings of tree planting

As Blumer states, “Human beings act toward things on the basis of the meaning that the things have for them.”(1969:5). When this sentence really settles in the mind we start to see behaviours and objects as so much more than what goes into them literally or physically. Even the choice to enact seemingly mundane behaviours can stem from an emotional or personal place. The physical act of a behaviour can be quite simple while the meaning and engagement can hold a deep significance. What I found when looking for the meaning attached of tree planting and how the participants act on the basis of this meaning is it has a shared social meaning as well as additional meanings. The additional meanings are closely connected with the personal lives of the participants and show how a behaviour can have multiple meanings which we act upon. Because of personal wishes, objectives, desires, and perspectives of ourselves and the world we can attach multiple meanings that relate to different aspects of our lives to a single behaviour. One additional meaning here is shared among two participants however the reasons for this additional meaning are specific to the individual and are not shared.

The themes presented here are the key findings from the interviews and observation data and does not include all responses or observation notes. The themes were identified in the data analysis Step 4 as the concept that thread through the entire, or a large part, of the interview with each participant. The shared meaning of tree planting for an environmental purpose exists among all participants, and the additional meanings of tree planting for social connection, connection to country, anti-consumerism, responsibility to future generations, and doing visible actions arose for individual participants.

## 4.2. The shared meaning – trees for an environmental purpose

Two of my first questions to all participants was “How did you come to plant trees?” and “What did you believe would be achieved through planting trees at the time”. This was asked to initiate a conversation that would enable me to understand the introductory process of their participation and what initial meanings were held at this point in time. Seven of eight participants told me their participation in tree planting begun through conversations with the founders. Five participants told me that during this conversation an invitation to participate was given along with various environmental reasons for planting trees and reforestation in which they discussed at length. Five participants included the environmental reasons within their conversations without me asking:

“we talked for a while about trees being the best way to regenerate the land and he invited me to come along to the plantings ” (P5)

“I was talking with Maximo about reforestation and we agreed that it’s the best way to heal the planet. I was so impressed with the work he had set out to do and when he asked if wanted to come I was of course so into it” (P4)

The environmental reasons for tree planting were diverse among the participants with some referring to specific environmental benefits of tree plantings such as carbon capture, rainforests as a fire deterrent, and biodiversity.

“I saw Maximo at the shops and we got talked about the tree planting events and I didn’t know they were open to the public before he invited me. Trees being incredible for capturing carbon dioxide and we talked about that the tree planting in this region will have a huge impact in that way if we reforest a lot of the land here it will be huge for the area and the whole planet”(P1)

“we were chatting about the fires that had just come through not far from here and like that more rainforest reduces the future fire risks in the area and then he was like yeah you should come and plant with us its happening every week” (P2)

“I’ve always been into understanding biodiversity in the region because it’s just so lush and full of life and we had a great chat about increasing biodiversity of trees through growing and planting diverse native species” (P8)

The two who did not include the environmental reasons directly after my question told me “I bumped into Maximo (the founder)”(P3) and “ got chatting with Tashi at the

nursery one day and she invited me along the next week” (P7). When asked what they believed they believed would be achieved at the time P3 and P7 then told me “the connection between more trees and climate change” (P3) and “regenerating the land” (P7).

When inquiring into what is most important about tree planting, 6 participants mentioned the environmental reasons discussed in this introductory conversation with the organisation staff, and 7 of 8 participants went on to introduce additional meaning themes from then on in the conversation.

Tree planting for an environmental purpose is analysed as a shared meaning as it is what was important and real about the behaviour at the initial stages. The analysis revealed that tree planting for this meaning was their experience of it when they were introduced to the behaviour. The point of it being for environmental purposes.

#### 4.2.1. How has this meaning been socially created and formed from social interactions?

As Blumer states, meaning is assigned through “the ways in which other persons act toward the person with regard to the thing in the context of the act”(Blumer 1969). As these conversations were social experiences where the participants were acted toward in regards to the behaviour of tree planting they are then seen as situations of meaning making for tree planting. All participants told me there was agreement in the conversation between themselves and the staff of the environmental reason for planting trees. Additionally, the ways the organisations members were treating the participants in regards to tree planting were of overt acceptance of the environmental reasons being factual and attainable, of encouragement for them to participate, and enthusiasm. The meaning of tree planting for environmental purpose was encouraged to be possible actualise through the behaviour.

“We had a really great chat and of course after that I was in. Especially after the fires came through it’s really what the region needs”

“It really inspired me to come along”

“He was so welcoming! It was great to be able to talk about the impact it will have on biodiversity and the endangered species of the area”

“We just agreed about so many things and I felt like we had a great chance of making a difference through reforesting this region”



The analysis shows that the meaning arose out of mutual agreement of the environmental reason tied to the behaviour, in that planting trees would mean to fulfil this environmental reason, and through the environmental reason being a stepping stone to the invitation to plant trees. The behaviour is thus mutually agreed to fulfil this meaning. Additionally, the positive and inspiring conversations about enacting the behaviour act like social acceptance for firstly doing the behaviour and that this behaviour is positive and going fulfil the reason that was conversationally tied to it. As all participants shared this experience and meaning making situation with me that initiated their participation and where they were treated exceptionally well in regard to the behaviour and in regard to talking about the environmental reasons for planting trees.

### 4.3. Additional meanings

This environmental meaning functions as a core element in the meaning of tree planting and reason to engage in it. However this meaning, shared with me as “common sense” is not the only meaning present that serves as a direction for participation. As Blumer states in premise 3, this socially created meaning (premise 2) goes through an interpretive process (premise 3) where meanings can be modified and transformed, and added to in order to suit our personal wishes, wants, objectives, and image of ourselves. Present in all of the participants is a deeper and more emotional meaning connected to their personal objectives, wants, and images of themselves. Meanings of which were created through involvement with other social spheres and meaning making scenarios than the initial conversations with the organisation staff. Emotional and personal meanings have become additional, and at times stronger, directing force for participation.

#### 4.3.1. Tree planting means social connection

A meaning theme that was prominent in the analysis of two participants is social connection. To participant 1 and 4 tree planting means social connection and this meaning maintains part of their drive for continued participation.

For participant 1, seeing friends and the wider community at the events and making new connections is meaningful and is recognised as a significant reason she continues to attend the events despite holding strong agreement for the environmental purposes. Connection is also noted as one of the most important aspects of the behaviour and therefore part of her reality in how she experiences enacting the behaviour of tree planting.

I asked participant 1 on her favourite part of tree planting, its role in her life and the point of it, she told me, “Seeing friends at the events is one of my favourite parts”. When I inquired into why it is one of her favorite parts she expressed that the sense of community coming together is a crucial aspect of her experience “I really feel a sense of community when I’m there seeing all of these people from the Shire here planting trees together. I don’t know what I would do without that community feeling, I couldn’t do without it actually!”.

When we continued to talk about the social connection participant 1 experiences at tree plantings the shared meaning of trees for the environmental purpose arose as interwoven. The following two quotes show the concurrently held meanings of social connection and tree planting for participant 1.

The meaning theme of social connection is interwoven with the shared meaning of tree planting for environmental purposes, as shown in the following quotes. “Every weekend I know I’ll see friends which is one of the best parts for me, and also that we get to do something with them that isn’t about us but more than us”,

“I think the most important part of it is obviously the environmental impact that thousands of trees will have but its’ also, for me, making connections there that are based on such a positive environmental purpose and not like based on just knowing each other or living close by”.

When I asked if she always felt this way when planting trees she told me “no” and explained to me that she was there initially “to plant trees for the biodiversity” and “didn’t realise” she would have close friends because of it. The analysis showed that this meaning change occurred during her participation and her reality of the experience fluctuated toward a social connection meaning through other participants and the way they acted toward her over time.

Participant 4 has been attending planting events for the last 9 months. Living in the Byron Shire for almost five years he told me the tree planting events has been pivotal for creating that network of friends he always hoped he would have here since moving here.

“Of all the reasons I could tell you it’s the social factor that keeps me coming back”

“Seeing people I know from plantings in town is one of the best parts of my day. I have such a good feeling inside when I make these friends over a cause I feel passionately about. It’s like the best activity for us to do together and we see each other on the street and talk about it. I feel more at home here than I did before knowing I can talk about the

forest with others and how cool it is to protect it”

“Yeah some of the people I have met through Reforest Now have become my closest friends, it’s really cool. Definitely my favourite part about it.”

Symbolic interactionism premise 3 explains the internal interpretive process where meanings can be transformed and added to. In the case of participant 4, the meaning of social connection was not present in the beginning of their participation despite seeking this connection at the time. When asked about his initial expectations before participating he told me about the physical aspect of tree planting and what it would be like practically.

“I thought it would be you know, putting trees in the ground, it’s pretty obvious what it’s gonna be like. Turn up, a lot of heavy lifting probably and the physical aspect of it, that’s what I was expecting”

Then when asked if and how this expectation changed over time during participation he told me

“I definitely do not see it as a physical thing anymore. Sure, you’re there doing the physical work of course and that hasn’t changed but it’s almost like a social activity for me now. Imagine knowing all your close friends will be there...you don’t see it as a chore but you see it as a weekend activity”

I understood this change in perception of the reality of the behaviour as the interpretive process in premise 3 of symbolic interactionism. Tree planting initially had an environmental meaning of “healing the planet” and over time had been transformed into meaning social connection and friendship as there was a clear distinction between how he was experiencing the behaviour in the beginning of the participation to when we met. When I inquired into what had happened to bring about this change he told me about the gradual feeling of closeness and friendships that had formed over time.

“I guess just over time you forge those friendships and become closer. It’s been around 8 months of going up to the sites weekly so a pretty long time. I was really quiet in the beginning and didn’t know anyone but I feel so comfortable now, just from getting to know everyone better and seeing them outside the plantings. I kinda thought to myself well if all these people are here every week I could get to know them better...I really needed that during that phase of my life, I felt so alone here even in a tight community. Having friends is so important obviously and I had no idea I would find that with this”

Blumer states if the researcher wishes to understand a behaviour it is necessary to see it as they do (1969:51). Both participant 1 and 4 do see tree planting for the environmental reasons while also embellishing their accounts with affirmations of connection and friendships they experience. Social connection has become a strong driving force for continued participation and the most favoured part of the behaviour. Both participants continued to endorse tree planting as holding more than the environmental reasons for them personally.

#### 4.3.2. How has this meaning been socially created and formed through social interactions?

Meaning arises out of social interactions between people where actions define the behaviour for the people involved (Blumer 1969:04). The analysis showed that tree planting did not have the meaning of social interaction initially for both P1 and P4, rather the meaning of social connection can be seen as a social product arising from the interactions between these participants and the group of people they interact with at the plantings. While tree planting is inherently social in that people gather to plant trees not all people experience it as meaning social connection. In the analysis, both participants initially ascribed the meaning of environmental reasons to tree planting then repeated positive social interactions added an additional meaning of social connection to the behaviour. The analysis revealed that this meaning does not reduce necessarily the environmental reason but acts as an additional meaning that has changed their reality of the behaviour and what it experiencing it is like.

Both participants repeatedly expressed to me the positive interactions they have had over time with other participants and that this was only experienced over time and not present at the beginning of their participation. Social connection is a valued and significant aspect of the behaviour and therefore an additional meaning for these participants. The analysis showed that participant 4 in particular highly values the social connection and this aspect has become how he sees why he is tree planting now, not as a physical act but as a social experience. This suggests there has been a fluctuation of how he perceives tree planting based on his assessment of what is being presented to him. Over time he was presented with continuous positive interactions and an increasingly positive friend forging environment which had come about through interactions with other participants. The analysis showed a realisation over time that tree planting can be a place to meet his wishes and objectives of social connection.

### 4.3.3. Tree planting means connection to country

The additional theme of connection to country arose in the analysis for Participant 3. Participant 3 is a young indigenous woman has been attending plantings weekly for 7 months. She works for a local NGO teaching indigenous culture and holding traditional ceremonies, some of which have been held at plantings. In the analysis, to understand tree planting from her perspective the theme of connection to country arose as fundamental to the how tree planting is experienced and what contributes to her reasons for partaking in it. This personal meaning is in addition to the shared environmental meaning as discussed in the shared meaning.

“When we come here and plant in the earth, as it breathes, I breathe too...Hands in the ancestor is *connecting*”. When I asked what it is she is connecting to she replied “to the land, to country, to each other”. We talked at length about the concept of connection to country and she explained that it is difficult to grasp for non-indigenous people. She told me that it is how they view their ancestors, spirits, and pay respect to the land and ancestors. The ceremonies which pay respect are held at some of the plantings and began to be a part of the events after conversations this participant had with the organisation who encouraged her to hold these ceremonies. The analysis showed that while she held this meaning of connection to country for tree planting prior, it was able to be expressed through these events in this context after the ceremonies began.

I asked about the ceremonies she and her organisation hold at some of the plantings. She told me “we acknowledge the ancestors of this land and us. We have a relationship to the land and we acknowledge that and invite us here to plant the trees”

I asked if she always experienced this when planting trees and what she expected at the beginning of her participation to what she experiences now, she told me “I was just happy to see someone real passionate about caring for the land. Like I told you we talked for a while about what people here are doing about climate change. I thought it was great to see what he was doing.” And “I expected a lot of trees and I knew it was a connection to country but he didn’t see it that way. You have seen us there holding ceremony before the plantings but we didn’t always do that until we got talking about ways to work together. We like working with groups in the area who are doing things like this.”

The following quote shows a change in experience of the behaviour of planting trees after holding these ceremonies, “It is something different when we hold the ceremonies and welcome everyone into the land. Everyone there seems to really like it and we keep doing it.”

Participant 3 met the founders and in their initial discussion they talked about the

connection of trees and climate change. Later in our conversation I asked if she thinks about climate change when she is planting trees and she said “not really, not like that”. I asked why that conversation was about trees and climate change and she told me:

“Same thing. Different language. You see those things. I see an ancestor that I feel pain of. When I come and plant these trees I feel connection. We bunji\*. You and me. I know you feel it too but you understand it with words we don’t use.”

(\*Bunji means friend or mate)

“I know that trees are good for the air and with all the pollution in the air we need more trees. When there is more forest the floods are less too and there is more life here, birds and animals come back. You call it diversity but I see the life in another way. The earth is changing from what we are doing to it and we are in it together now”

I clarified that “in it together” was referring to in climate change together. The environmental aspects of planting trees she mentioned such as air pollution, biodiversity, and flood control, were not talked about in the remainder of our conversation. When I asked what the most important and valuable part of the tree planting is she told me “we come here and feel one-ness to country together” and “To come and protect it together. We are in it together”.

I asked if she enjoys coming to the plantings at the beginning and if that has changed, she told me “more now, yeah...more now. I like to see everyone appreciating the ceremonies and paying respect and acknowledgement. It is close to my heart. I like that part.”

The analysis showed that trees meaning for environmental reasons was present at the beginning of her engagement in tree planting and she still holds this meaning, however through applying her additional meaning of connection to country she now holds this meaning as a primary meaning which is acted upon. This is especially clear that she refers to the situation being “different” when the ceremonies are enacted and that she uses different words for the environmental purposes.

#### 4.3.4. How has this meaning been socially created and formed from social interactions?

Our conversation with participant 3 was deeply moving. We spoke of her family here who have met at important sites in the region for at least 22000 years who work now with a range of conservation and alike groups to incorporate connection to country into contemporary conservation work. She told me later outside the interview that growing and planting trees has been commonplace for Indigenous Australians for many

generations. Her families current work in connecting to country through contemporary conservation work has been carried out since the 1970's deforestation ceased in the Byron Shire. I was told that before then their planting of trees was carried out within their own social sphere of Indigenous people rather than with local NGOs.

While participant 3 told me she initially agreed with the environmental reason discussed in the inviting conversation to join the plantings, the analysis shows she holds a deeply emotional meaning of connection to country. The analysis showed this meaning has been formed through many years of enacting the behaviour within her own social sphere where people in that sphere acted toward tree planting as a connection to country activity and acted toward her holding this regard for tree planting. The application of this personal meaning to the current behaviour was through the social interactions with the organisation who encouraged her to hold the ceremonies and through the ceremonies themselves as social interactions that supported the meaning application.

She told me about knowing from the beginning it is a connecting to country activity but did not assume that it would be actualised or facilitated by the organisation. Reforest Now works with a group of Bundajalung people to hold ceremonies at some events to pay respect to indigenous connection to the land and to the land itself. The positive reactions from others at the plantings about these ceremonies may have been part of the interpretive process she went through when assigning this meaning to the plantings.

#### 4.3.5. Tree planting means anti-consumerism

The additional meaning of anti-consumerism arose in the analysis of participant 1 in addition to the social connection meaning. This meaning arose early in the interview when I asked what tree planting is for her and why she does it.

“It's [tree planting] a way to spend your weekends that is not about consumption. It breaks up the consumer culture. You consume the environment at the end of the day, they are completely at odds and we all know climate change and pollution is the consequences of that. So one way to not be part of that is planting trees.”

While she did say that the social connection is her favourite and one of the most important aspects of tree planting to her, tree planting was repetitively referred to as engagement in an activity that is not consumption based. When I asked her what she believed the consequence of tree planting is she continued to talk about the anti-consumerism nature of tree planting.

“Tree planting, gardening, and giving back to nature directly never really involves buying

eco things. It's like, when you realise you're always consuming and you've been pulled into that way of caring for the environment which isn't always direct and really impactful you tend to gravitate toward activities that are not consuming and really give back in a way you can see and that have a much bigger impact than what the individual consumer has."

I asked if she talks about anti-consumerism and tree planting with the friends she has made through tree planting, she told me "The friends I have made through this have been getting together every now and then to talk about other ways we can change our lives to go away from being tied into a consumption based lifestyle. We're really passionate about it and are trying to create a guide on activities and things you can do in your personal lives and in the community that reflect the need to consume less resources"

I asked how they began talking about engaging in non-consumption activities and she told me "I'd say for a while, I don't know how long exactly. I guess we started talking about it pretty early on from mutual interests and then we started to write this guide. I hate to say that I see tree planting in relation to consumerism but it's in relation to anti-consumerism! It is one of the best things we can do for the environment and it's so important to engage in non-consumerism based activities"

I asked if partaking in a non-consumption based activity was a significant aspect of tree planting to her, she said "yes it is for me". I clarified on if the point of tree planting is to engage in non-consumption based activities and she told me "the point of a lot of what I do at the moment is that".

#### 4.3.6. How has this meaning been socially created and formed from social interactions?

The creation of the meaning of anti-consumerism is inherently social for Participant 1. The social spheres in relation to tree planting that have created this meaning are the social network she has built through engaging in tree planting and the online social spheres where tree planting is discussed in relation to partaking in anti-consumerism activities.

Participant 1 told me she frequents a website that "shares information and a forum on circular economy and ways to change your lifestyle away from consumerism". On this website, she told me that "Planting trees and doing any community gardening and even guerrilla gardening where you plant around town place is definitely talked about a lot as part of that move away from consumerism". The analysis showed that the context of the act of planting trees extends into this online social sphere where the meaning of planting trees is positively associated as an activity one participates in as an anti-consumerism



behaviour.

The analysis also showed that the network of friends made through tree planting is also a social sphere for this meaning in that they collectively refer to the behaviour in relation to anti-consumerism and categorise it as an anti-consumerism activity. The creation of a guide for anti-consumerism continues to reinforce this meaning for participant 1.

#### 4.3.7. Responsibility to future generations

Participant 5 and 6 are a couple living in the Byron Shire and are about to adopt a child. The meaning of responsibility for the future generation was primary in the analysis for both participants. They told me that over the past few years they have contemplated not raising a child because they see the world as “devastated by selfish human actions” (Participant 5) however the analysis showed that as tree planting has come to mean enacting responsibility to the future generation they are less guilt ridden and are going through with adoption.

Participant 5 has been attending plantings since the establishment of the organisation, introduced to the behaviour through a conversation over the “common sense” environmental reason that it is “the best way to regenerate the land”. Both participant 5 and 6 told me that during this time they were “worried about raising a child through climate change” and held off on the decision to adopt. They told me that because of the strong desire to raise a child these participants they talked about what things they could do “for the environment ultimately for our child and the next generation” and participant 6 pointed out that participant 5 involvement in tree planting is something they should increase involvement in and do together as part of their efforts in environmental work for the next generation.

“It’s important to like.. think further than just reproduction or in our case adoption, and think, Okay, how can we actually create a positive living environment because having kids without making sure that the environmental is worth living is kind of pointless.” (Participant 6)

“Going to the reforestation events is something we decided we can do more of seeing as we wanted to have a kid but felt powerless in the current situation with the climate.”

“We spoke about it and decided to do a bunch of things that would be our way of making sure our child is raised in a better environment, literally. We couldn’t just sit back and do nothing while we were hearing the news and stories about climate change”

The drive to tree plant for participant 6 arose through a realisation there is a connection between tree planting and his desire to do things for the generation of his child.

“I initially wasn’t doing it, it was his thing. I really like coming along and yeah I would say I don’t think I would have done it if I didn’t have this strong drive to make sure the environment is healthier for when our child grows up” (P6)

When Participant 6 realised there were impactful things he could do to bring his child into a better world was the defining moment for him to participate. Through this interpretive process of assessing the behaviour and suiting it to personal wishes and wants tree planting became to mean enacting responsibility for the future generation. This is also when the meaning change for Participant 5 occurred.

“Yeah I mean I agree but I didn’t always see it like that. I’ve been coming along for years and I always wanted to do it for the rainforest, I love this place. When Liam felt so guilty about raising a child with climate change happening and everything else we thought well...why don’t we do these things together and bring our child into a world we have made a difference in.” (P5)

“Caring for your child and the next generation these days means caring about the environment and forests are of course one of the most obvious things to take care of in that sense. I love that. I feel so passionate about it now we are doing it more for a family reason.” (P5)

To feel more passionately about it now shows an interpretative process where personal desires and objectives were assigned to the behaviour thus adding a personal meaning to the behaviour.

#### 4.3.8. How has this meaning been socially created and formed through social interactions?

The analysis revealed a change of meaning for participant 5 from environmental purposes to responsibility for future generations through conversations with participant 6. This can be seen as a social sphere of meaning making by taking into account the interactions between participant 5 and 6 and their conversations about tree planting. From personal wishes and objectives the reality of the behaviour changed into an activity that meant they were doing something for future generations thus allowing the meaning application of responsibility to future generations. This subsequently enhanced willingness to begin participation (P5) and a stronger passion for continued participation

(P6).

#### 4.3.9. Tree planting means doing visible actions

My time with Participant 2 began in the car on route to a planting event. Participant 2 prefers not to drive anywhere in the Byron Shire region and instead is a frequent hitchhiker (common to the region) and carpools where possible. During our conversation on route to plant trees he describes himself as living “a truly sustainable lifestyle” and that he considers himself as an “eco-minded person”. When asking “what differentiates a truly sustainable lifestyle and eco-minded person from others?” he told me “being sustainable isn’t about doing it because it’s fun, it’s about putting in the physical effort...actually doing things and not just talking about it”. Further analysis of observations and the interview with Participant 2 revealed the additional meaning of ‘doing visible environmental actions’.

“I think the like there's a real sense of accomplishment. And just like you've done something. And it is going to last. You'll be able to see it in years to come and know it's still had an impact after that day you planted.”

When I inquired about environmental activities that don't have this kind of impact he told me the following:

“There are a lot of hippies in the area right? They don't do anything they talk about. It's all talk. You can talk about saving the world but I don't see it through their words. Oh and everyone buying keep cups and reusable this and that. It's nice but how about you plant a forest, build your own house, put up solar panels! Actually do something you can see having a real good crack at helping out the environment”

The phrase to be able to “see” the impact came up frequently. The analysis revealed that to be an eco-minded person and live sustainably one has to physically do things, not just talk about them, and these physical things should be visibly impactful and outweigh actions where impact is not visible.

I asked what motivates him to continue participation and he told me “I enjoy it but fun isn't the reason I keep going. Like I said, if you really think about what you can *really* do to make an impact the bigger scale things are what make a difference in this world. It's not always fun, it's a huge process that can take days to put a 10,000 trees in the ground but I mean you don't do it because its fun. You do it because it will honestly have an impact. Planting hectares of forests offsets hundreds of people. That's not small and you can literally see it do something.”

Participant 2 told me he has lived in the region since birth and that his parents were part of the deforestation blockade in the 1970's that halted the entire destruction of the local rainforest. Also described as "activists", his parents were part of the "establishing community" of the town and part of the social transition away from farming and logging that occurred post deforestation blockade. Participant 2 told me he has been hearing stories of deforestation and reforestation as since birth from his parents who have regarded tree planting and any sort of reforestation work as "an important action that what makes this region unique".

I asked about his families reaction and attitude toward him planting trees and he told me "it's so normal for them. But yeah they're stoked I'm doing it and that the organisation is doing it so often".

When I inquired into his perspective on the prevalence of tree planting in the area he told me that "it's pretty normal here". The use of the word 'pretty' must be clarified as in Australian slang it used as an understated way of saying "really" or "very". I asked him how common it is among his friends and close network to tree plant and he told me "we're all activists. We like to do the bigger scale environmental work. We go up to the Adani mines and protest. Almost all of us plant trees whether it's with this organisation or others in the area". To group tree planting with being an activist suggests a strong association of tree planting to substantial, disruptive, and visible change.

#### 4.3.10. How has this been socially created and formed from social interactions?

Looking through the lens of symbolic interactionism, behaviour is seen as "shaped and continuously reaffirmed in social interaction" (Shibutani 1988:24). Participant 2 has had life-long conversations with his family and friendship group who have formed a common definition of worthwhile environmental or 'eco' behaviours as those that are "visible" and that have "real" impacts. Tree planting has been categorised as such through familial ties with the founding community of the region and their stories of deforestation and reforestation. Because of this, the analysis revealed participant 2 has come to hold this meaning for tree planting and when he tree plants his perception of it is entwined with this meaning.

Looking closely at premise 2 it states that "the meaning grows out of the way in which other persons act toward the person with regard to the thing" (Blumer 1969:04). The analysis revealed that the interactions with his family and friends who are both classified as "activists" and who make "real" impacts through "visible" and "bigger scale" actions

affirm the involvement of participant 2 in tree planting as a positive behaviour and as one that is classified as a visible impactful eco thing to do.

#### 4.4. Sub-research question 3: How does the social context of The Byron Shire contribute to the manifestation of tree planting?

In this section the analysis results for sub-research question 3 are presented. Two themes were distinguished as influential as ways the local social context contributes to the manifestation of tree planting in Byron Bay; the deforestation/reforestation history and the current validation for the behaviour. These themes were prominent throughout all participant analyses in relation to questions investigating the local community, their responses to tree planting, if the participants feel supported, and what anecdotes are given when asked about the local attitudes.

##### 4.4.1. The deforestation and reforestation history

The story of the deforestation, blockade, and subsequent reforestation arose in the interviews with all participants. In five of eight interviews, the story or part of it, was brought up prior to any questions inquiring into the attitudes of the local community or how common it is to participate in reforestation behaviour.

“Years ago the government tried to continue cutting down the rainforest here, and it was stopped by people coming in creating a blockade and forcing them to not remove the trees and remove the rain forest. Basically, all these people migrated to this area to for environmental action. And then after they succeeded they stayed in Mullumbimby and a lot of these places were just like, ports like Byron Bay was a whaling station, and then they came in the 70’s or 80’s and haven’t left, and a lot of them migrated here because of the Environmental Action that was available here because they could actually save the forest.” (P2)

The following two quotes shows the connection of current tree planting to the deforestation blockade, in that tree planting is seen as a continuation of post-deforestation tree planting initiatives.

“I think that it's really important to re-establish like the actual type of ecology, in regions that we've just completely wiped out with farming. This region was Australia’s largest subtropical rainforest. They cleared something like 90% of it with cedar logging and

farming. After the blockage to stop it, it was successful, and planting trees because of this has been common since” (P1)

“I know people came here to stop deforestation and they still talk about that. It’s like planting trees goes way back here and is something the place is almost founded on.” (P8)

Participant 6 brought up that “most” of the people in the area are “environmentally aware” to the point that he described there being an “environmental ethos in the community”. When I asked “how did this environmental ethos come about?” he told me “The environmental ethos here was established a while ago with the closure of the fishing ports as they were whaling and catching dolphins and the protests that stopped the deforestation from well, completely wiping out the rainforest here. These two environmental groups created the new normal and more people have become engaged in these areas to grow the support.” (P6)

Participant 7 also described the general attitude of people as “an environmentally conscious place”, when asked about their thoughts on why this is they told me “This place was cleared. You know for a long time people were chopping down trees and making room for farming.” (P7). When I asked participant 7 if this is still happening they told me “definitely not, well not in the same way. Chopping down trees is probably still going on on some peoples properties but you wouldn’t get away with it now! The whole town would be there protesting. We prefer to *plant* trees now not *chop* them down!”

Referring to the location where the trees are planted as “cleared land” or “cleared paddocks” was common (7 participants). These areas were once rainforest and cleared during the agricultural clearing and logging. This suggests a strong association of the current behaviour to the history of deforestation in the region.

The analysis revealed that the deforestation and reforestation history of the region has become a story that contributes to how these participants comprehend what constitutes the place identity of this region. Many participants connect the current behaviour to the past which acts like social cohesion over time through continuing this behaviour that is foundational to the regions identity. The deforestation/reforestation history is very much a part of their current dialogue when discussing tree planting and can therefore be seen as influential in the current behaviour.

#### 4.4.2. Current social validation for tree planting

The analysis shows a strong validation for the current behaviour from the community outside of immediate social spheres of the participants. This validation is both perceived by the participants in the way they feel and interpret support and through directly experienced validation in interactions where positive responses were given to the

participants upon discussing tree planting. A reoccurring feature in the responses was the direct positive responses from community members about tree planting who do not tree plant themselves, shown in the following two responses.

“I was telling one woman at the shops what I was doing that weekend, that I was going to plant trees and she was so excited and interested” (P4) and “Yeah definitely I feel supported to do it. I have told a lot of people around here about it and so many people are interested in helping out and being part of the effort. I think it definitely suits the environmentalism that a lot of people enjoy in the Byron Shire” (P2)

One participant expressed tree planting as being something supported by the established set of attitudes of the community before they told me about the positive interactions, telling me “It’s such a part of the mind-set here. There is a lot of excitement about it. I told my colleagues at work and they were really enthusiastic about it. I’ve seen a few of them planting after I told them.” (P6).

While not all participants shared positive interactions they have had when discussing tree planting with people outside of the planting events they all told me they experience support from the local community with one participant saying they “certainly” feel supported “in this community”(P1). When I asked about the general attitudes of the people in the region all participants expressed a perception that there is a concentration of environmentally aware people with attitudes that support pro-environmental behaviours with one telling me “This region seems to attract a little more of that environmental attitude” (P7) and “I think there's a high concentration of eco minded people in in the area.” (P2).

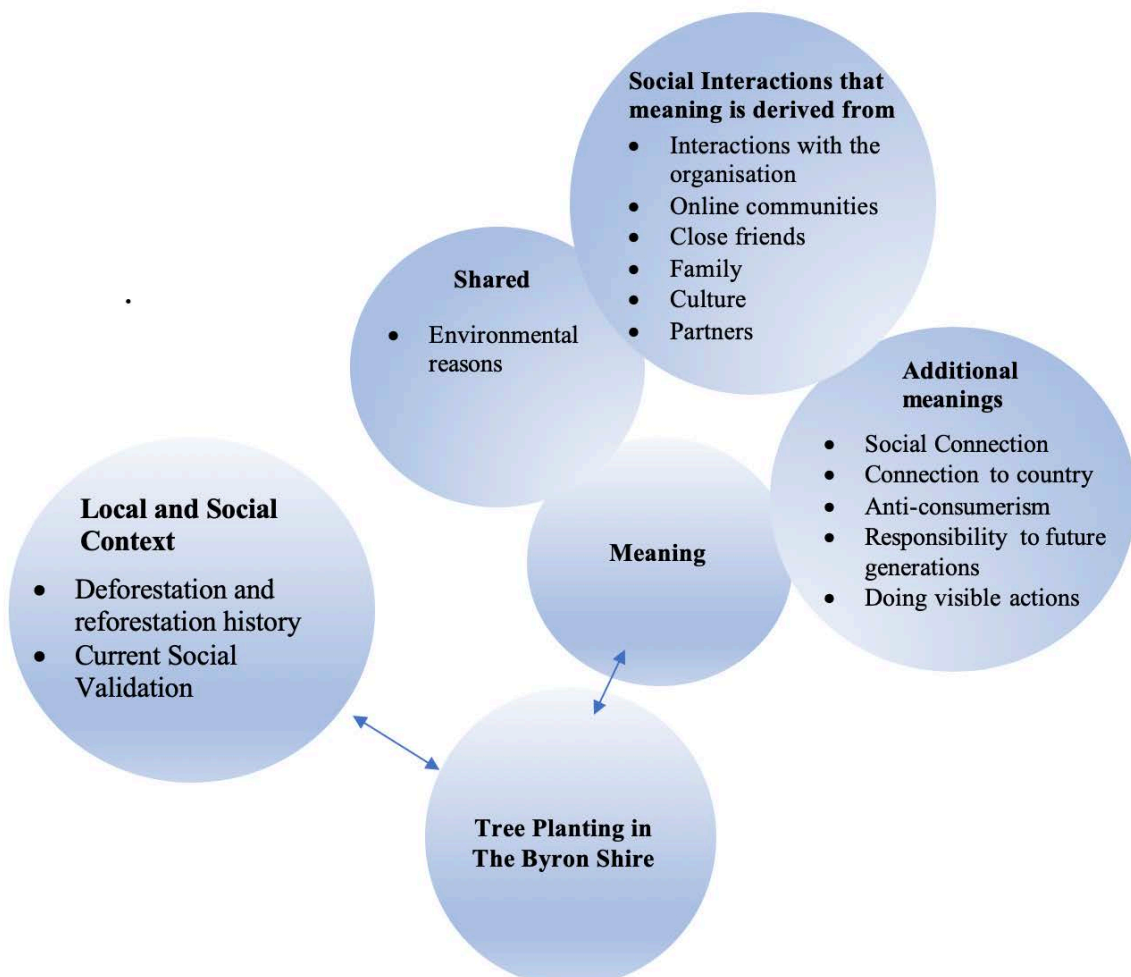
When I asked participant 8 how they would feel talking about the environment and in particular talking about doing things to support it they linked the environmentally aware mindset to the geographical location of the region and the ecosystems close by telling me “Yeah I think you could talk about environmental things with anyone in this region. It’s the ethos here and a very environmentally focused mindset. The rainforest, the reef, the beach...they all meet here and so it attracts people who love those places and then it seems only natural that if you love them you end up supporting the environmental work that goes into protecting them and joining the local groups that initiate it.” (P8)

These results show that tree planting is substantiated by current validation for the behaviour by community members, even those who do not tree plant themselves. They also show that tree planting is considered as compatible with the established set of attitudes held by the community. The form of environmentalism in the is one that supports the act of tree planting as an expression of environmentalism.

## 4.5. Summary of findings and analysis

In summary of the findings and analysis of the results, for sub-research questions 1 and 2 there is one shared meaning that is present for all participants of tree planting meaning for environmental reasons and the additional meanings of social connection, connection to country, anti-consumerism, responsibility to future generations, and doing visible actions. These individual meanings are held simultaneously to the shared meaning and show how the initial meaning is modified to include personal desires, wishes, objectives, and views of the self as additional meanings that are acted upon. In summary of the findings and analysis for sub-research question 3, two primary themes arose which are the deforestation and reforestation history of the region and current social validation for the behaviour. Both of these themes were prominent for all participants and can be seen to contribute to the manifestation of this behaviour in this context of The Byron Shire. These findings are presented in diagram format below in Figure 3.

Figure 3 Diagram showing summary of findings and analysis





## 5. Discussion

This chapter presents the discussion for the sub-research questions. Sub-research questions 1 and 2 are presented together in 5.1 and followed by the discussion for sub-research question 3 in 5.2 and a discussion of the main research question in section of 5.3.

This research set out to answer why people in The Byron shire plant trees. Studying human behaviour is an age old domain seeking to understand why we do what we do, our motivations, and explanations of drivers (Baum 2017). Pro-environmental behaviours are studied because the behaviours have a positive effect on the environment and can increase the preservation and conservation of the natural environment (Kurusu 2015:02) so understanding why people do them can be a gateway to knowing how to encourage and support the longevity of the behaviour for the ultimate benefit for the environment.

Tree planting has been acknowledged as passed over in previous research into pro-environmental behaviours (Bai & Liu 2013) but is something that is happening all over the world. Participation in tree planting constitutes an essential aspect of the numerous tree planting initiatives, organisations, and projects that have set out to plant trees from 10 to 10 million.

This research focuses on tree planting and follows advice to understand pro-environmental behaviours by looking closely at the particular context it occurs and through the narratives of those doing it (Shove 2010, Hargreaves 2010). The context of this research is The Byron Shire in Australia where a groups of volunteers are tree planting weekly. To reveal the narratives of these participants and allow for the ‘why’ to emerge from their perspective the theoretical lens of symbolic interactionism was used that guided the research questions, methodologies, and analysis.

Interviews were designed to reveal the meaning of tree planting for the participants in which they tree plant because of, how social interactions formed these meanings, and the influence of the local and social context of The Byron Shire on the manifestation of this behaviour there. These aspects of meaning, social interactions, and context are foundational to the perspective of symbolic interactionism that sees behaviour as arising

out of socially created meaning that is contextually bound (Blumer 1969) and therefore to understand why people do a behaviour the researcher must understand these elements.

## 5.1. Sub-research question 1 & 2

The results for sub-research question 1 and 2, what is the meaning of tree planting for the participants and how has this meaning been socially created, revealed multiple meanings present. The social act of tree planting in The Byron Shire is a contribution of each participant who have understood a shared meaning, located themselves within the context, applied their personal wishes, objectives, desires and incorporated their view of themselves and the world. This has led to multiple meanings that converge at the point of the behaviour, some of which are shared.

Tree planting has a collective shared meaning which is acted upon, that of for environmental purposes, as well as additional meanings of social connection (which was shared among two participants), connection to country, anti-consumerism, responsibility to future generations, and doing visible actions.

Meaning does emanate from the objects or behaviours in and of themselves (Blumer 1969) and this proposition of symbolic interactionism holds true for tree planting. Mitigating climate change, land regeneration, fire control for human wellbeing, and supporting biodiversity are environmental aspects trees and tree plantings contribute to but they are socially constructed by a human understanding of the cause and effect.

These reasons all fell under the environmental purpose theme as agreed upon reasons to act because of. Following the premises of symbolic interactionism from meaning to the social production of meaning, the study shows that conversations between the organisation members toward the participants as a place of social interaction to form an agreement and consensus on this meaning in that tree planting will result in the actualisation of these environmental reasons. The reciprocal agreement in these conversations that were verbally tied to initiating participation did initially encourage the participants to tree plant.

The additional meanings present in the results were social connection (which was shared among two participants), connection to country, anti-consumerism, responsibility to future generations, and doing visible actions.

Social connection is a fundamental human need (Andersen et al 2000) and was a prominent meaning for the behaviour for two participants and expressed to be important, a favourite part, and as an inducement to return each week. The meaning of social connection was not a simple application but rather the results show a formation of this

meaning over time during participation through interactions in the space of tree planting and through the recognition of the desire to feel social connection. Holding tree planting as meaning social connection has changed the experience of the behaviour for these two participants as social connection is the primary facet they communicate about in relation to tree planting. Social connection relates to their inner workings of desires, wants, and objectives that have been applicable to tree planting over time and through interactions.

Relating this to wider research in pro-environmental behaviours, predicting and understanding pro-environmental behaviours in relation to social identity, social validation, and social life comes up frequently as important and significant in quantitative research on the topic (Richardson et al 2009, Riper 2019, Fritsche et al 2018). Affinity to a group and strong social bonds has been shown to correlate with willingness to engage in pro-environmental behaviours (Richardson et al 2009, Fritsche et al 2018).

This research also acknowledges the prominence of social connection in participation. What differs is the qualitative analysis with narratives from the participants that reveal accounts of interactions that have enabled social connection and participation to influence each other. It shows that social connection, being something acted upon and because of, isn't always present and it can arise during the course of participation. The results show the application of meaning of social connection over time and through personal accounts rather than seeing social connection as a static factor that can be measured.

The additional meaning of connection to country was evident in the results for one participants interview. This meaning also arose through the processes of social interactions and interpretation of the situation over time. The results showed that this meaning was established for the participant from their cultural background but was not applied to this particular case in The Byron Shire and with this organisation until certain social interactions and interpretations took place. She was able to assign this meaning of connection to country that she experiences in her external social sphere to the tree planting with Reforest Now after the ceremonies began. Over time this meaning could transfer to the tree plantings and thus transformed her experience of the tree plantings in alignment with her personal meaning of connection to country. The positive reactions from others at the plantings about these ceremonies may have been part of the interpretive process she went through when assigning this meaning to the plantings.

Connection to country may be grouped into cultural values and in-group social identity which are factors measured in quantitative research into pro-environmental behaviours (Riper et al 2019, Tajfel 1978, Tajfel & Turner 1979). However a qualitative approach measuring this as a factor may not have identified this participant as acting because of cultural values and in-group social identity as the group is only one of their cultural groups. The application of symbolic interactionism allowed for the participant to express

their perspective to show how social interactions, changes during participation and interpretation of interactions have allowed for this meaning application over time. Rather than seeing a causal relationship between cultural values and tree planting, this current study offers a different approach that revealed the process and meaning behind the relationship of culture and tree planting.

Symbolic interactionism was instrumental in seeing tree planting from the perspective of the participants. The additional meanings of anti-consumerism, responsibility to the future generation, and doing visible actions all show that personal desires and perceptions of the self can be integrated into a behaviour through the application of meaning. The actors that presented these meanings repeatedly spoke of these meanings and coloured the conversation with this meaning. It shows that to understand an action and the meaning of it we must grasp how the person is perceiving it as each person relates the behaviour to other aspects of their lives that may at first seem far from the context of tree planting yet through cognitive processes of assessing the situation can be applied to it and thus initiated through the behaviour. The study shows that a physical aspect of a behaviour is not the only way the behaviour is experienced and interpreted. The social interactions and group life that formed these meanings are diverse and in varying forms and can be unrelated to the behaviour unless an inquiry into meaning is investigated.

The shared meaning and additional meanings are all part of a bigger picture of an environmental discourse that encompasses care, purpose, connection to the earth, something bigger than ourselves, and connection to each other in caring for the earth. In *The Symbolic Earth: Discourse and Our Creation of the Environment*, Cantrill and Oravec (2014) explain that the natural environment that we experience “is largely a product of how we have come to talk about the world” (2014:02) and our mental representation of the environment is influenced by cognitive processes, our social world, and the discourses we use (2014:02-04). The participants of this research are shaping the way they are experiencing tree planting through applying meanings that are facets of an environmental discourse yet relate to their personal worlds, their wishes, objectives, desires, and how they see themselves. This study shows that the environmental discourse is varied, emotional, and can be related to personal aspects of our being.

## 5.2. Sub-research question 3

Sub-research question 3 looked closely at the social and local context of The Byron Shire. This study shows that the manifestation of the behaviour of tree planting in The Byron Shire is contributed in part to the local history of the area (the deforestation and reforestation history) and the current social response (validation and environmental attitudes). These elements are unique to participants within The Byron Shire. It is

important to discuss the symbolic interactionist perspective that behaviour does not come from factors playing upon the individual. The local history and current social responses should not be seen as factors, rather they can be seen as contributing to it through interactions.

The prevalence of the deforestation/reforestation history in the participants responses leads to the conclusion that what has happened prior in the region is prominent in why tree planting takes place today. The deforestation/reforestation history is closely linked to the current dialogue of the participants and was used to contextualise their participation in the wider social context.

The strong prevalence of positive, approving, and enthusiastic responses from the community who are not tree planting toward the participants are highly supportive interactions in support for tree planting in this place. It is a continually reaffirmed behaviour in the wider social sphere of the local community and all participants expressed their experience of continued validation. The participants experience the general mindset of the local community as environmental and this may also contribute to the continuation of the behaviour as it is perceived as in alignment with the norms and values of the local community. However the investigation into how this experience of a general environmental mindset was not thoroughly explored and could be investigated as an additional research question.

Relating this to research in pro-environmental behaviours, the importance of community support has been widely acknowledged (Lorenzoni et al 2007, Norgaard 2006, Pongiglione 2014). Individuals can feel helpless and unmotivated if their community is not partaking in the pro-environmental behaviours (Lorenzoni 2007, Norgaard 2006). On the other side, motivation to continue engagement is more likely to be present when community support and validation is experienced (Pongiglione 2014).

I did not expect the stories of deforestation and reforestation to be so prominent in the responses and the results show that this is present in all of the participants understanding of tree planting in the context they are in. The prominence of both the local context and social validation in the results reaffirm the point made by researchers in pro-environmental behaviour that context should be addressed for every behaviour behaviours can be context bound and highly influenced by the local and social contexts they occur within (Shove 2010, Hargreaves 2010).

### 5.3. Main research question

Answering the main research question of this research (why do people in The Byron Shire engage in the pro-environmental behaviour of tree planting) coalesces the sub-research questions and is answered from a symbolic interactionist perspective with an additional emphasis on context. This perspective understands behaviour through addressing meaning, social interactions at play, and the context.

As meaning is not singular, answering this main research question is also not singular. The sub-research questions offer elements of answers that when combined show behaviour is not formed through a singular reason, meaning, or because of one factor of the context. These participants in The Byron Shire plant trees because it is meaningful on a collective level, on a personal level, and because the local context is formative and supportive of it. Each participant shares the understanding that trees have an environmental impact for various reasons and understand that tree planting will contribute to the actualisation of one or many of these environmental reasons. As each participant is active in meaning-making and does not simply reproduce meanings, they are all acting additionally because of personal meanings. Tree planting is dynamic behaviour that allows for the integration of wishes, desires, objectives and views of oneself to become part of the experience of it. When these wishes, desires, objectives and views of oneself are integrated and applied through social interactions the results showed that participants showed increased desire to continue participation.

The local context is also formative for these participants. The deforestation and reforestation history has turned into a story that is almost pervasive in presence, spreading among the local population and becoming prominent in their dialogue of tree planting. Tree planting in this region has been prominent from post-deforestation to now and is embraced with exceptional acceptance and validation. It is a highly endorsed behaviour in The Byron Shire.

## 6. Conclusion

The overarching question of this research is why do people in the Byron Shire engage in the pro-environmental behaviour of tree planting? On a scientific level planting trees is recognised as having the potential for numerous environmental benefits and being one of the most important things we can do in the face of climate change while it is largely ignored within research addressing pro-environmental behaviours.

In this study I used the theoretical lens of symbolic interactionism to show how the participants make sense of their world and their involvement in the behaviour. It allows for the 'why' to emerge from their perspective. This theoretical perspective allowed me to understand behaviour through what it means for them and offers a perspective that appreciates the socialising experiences, the personal lives of the participants, and the social context as contributing elements within behaviour. Using symbolic interactionist perspective I could explore meaning and the social interactions where meaning arises from. Symbolic interactionism plays close attention to context and the recommendations for PEB research also emphasize the social context.

The analysis showed one shared meaning and five individual meanings. The shared meaning of tree planting meaning environmental purposes was prominent for all participants and was applied to the behaviour of tree planting through interactions the participants had with the NGO staff prior to participating. The meaning was revised and through additional interactions and personal desires, wishes, objectives and views of the self, five participants held an additional meaning for the behaviour. These personal meanings were social connection, connection to country, anti-consumerism, responsibility to future generations, and doing visible actions. From a symbolic interactionist perspective these personal meanings are a basis for the action and thus answer why these participants engage in tree planting in The Byron Shire.

Playing close attention to social and local context, two themes arose as important elements to answer why these participants tree plant. There was a strong presence of the deforestation and reforestation history of the region that has become part of their dialogue when talking about current tree planting. All participants experience social validation and encouragement for the behaviour in interactions outside those of the context of tree planting. This research shows that pro-environmental behaviours are not always

conducted for a singular reason and cannot be encouraged through the proliferation of one such reason. This can change the way we encourage and promote pro-environmental behaviours in a way that moves away from promoting a single catalyst, moves away from seeing the individual as a reactionary being simply responding to factors, and toward appreciating the dynamic, autonomous nature of behaviour. From this study it is concluded that meaning and the social context matter in why participants in The Byron Shire plant trees. There are multiple meanings present in the singular physical behaviour and it can be experienced differently among participants and throughout time. The local history and social context of The Byron Shire is also a significant factor for the manifestation of this behaviour.

From an environmental communication perspective this research shows the significance of understanding participant perceptions and experience as it can uncover links and relationships between the social world, our inner experience, and the wider environmental challenges we face. Understanding these links can develop the environmental communicators ability to navigate and appreciate these powerful processes to encourage participation and positive environmental actions.

Finally, researching from a symbolic interactionist perspective is a valuable tool to the environmental communications researcher as a tool self-reflection. It is not used to explain the nature of reality but rather shows that conversations and experience is influential in how we interpret and behave. For the researcher, this can help to reflect on our behaviour, how it is influenced by our own social spheres and interpretations, and see social constructions more clearly. Appreciations of this can lead to more effective communication with others, avoiding misinterpretation, and accommodating for many perspectives which can increase our ability for positive environmental change in the various spheres environmental communication can be applied in.



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