PERCEPTIONS OF MACAQUE SACREDNESS AMONG BALINESE
TRANSMIGRANTS IN SOUTH SULAWESI, INDONESIA

A Thesis
Presented to the
Faculty of
San Diego State University

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Anthropology

by
Jeffrey Vance Peterson
Summer 2012
The Undersigned Faculty Committee Approves the

Thesis of Jeffrey Vance Peterson:

Perceptions of Macaque Sacredness among Balinese Transmigrants in South Sulawesi, Indonesia

Erin Riley, Chair
Department of Anthropology

Frederick Conway
Department of Anthropology

Kate Swanson
Department of Geography

5/9/12
Approval Date
DEDICATION

For Niko,
May your life be filled with love, enlightenment, and adventure.
And monkeys.
In a ritual, the world as lived and the world as imagined, fused under the agency of a single set of symbolic forms, turns out to be the same world.

—Clifford Geertz
Here, I explore perceptions of macaque sacredness among Balinese transmigrants in South Sulawesi, Indonesia. In Bali, long-tailed macaques (Macaca fascicularis) that occupy religious temple sites are perceived as sacred by the Balinese people and preserved by local communities. The migration and relocation of Balinese people to Sulawesi may have affected their perceptions of macaque sacredness and therefore have consequences for the local macaque species (M. ochreata) in South Sulawesi. My research goal was to understand the Balinese transmigrants’ perceptions of macaque populations living near the transmigrant communities in both sacred and non-sacred contexts to contextualize the overall relationship between them. Drawing upon the theoretical and methodological framework of ethnoprimatology, which focuses on the multi-faceted interrelations between human and nonhuman primates, I employ ethnographic field methods to investigate my research questions. Data were collected through semi-structured, one-on-one interviews with members of three Balinese transmigrant communities in the Luwu Timur district of South Sulawesi. All interviews (N = 100) were conducted by me in the national language of Indonesia, Bahasa Indonesia. The sample was stratified between older and younger generations to examine the potential effect of being a 1st or 2nd generation transmigrant on perceptions of macaque sacredness. The results indicate that macaques in Sulawesi are not considered sacred by the Balinese transmigrants. The majority (87%) of respondents indicated that they did not perceive the macaques in Sulawesi to be sacred, while only 13% of respondents did. Furthermore, there was no significant difference between the older and younger generations regarding perceptions of macaque sacredness. The general absence of macaque sacredness in South Sulawesi is largely due to the following interrelated factors: (1) macaque behavior that is either destructive to crops or regarded as fearful of humans, creating a perceived antagonistic and competitive nature in the relationship between humans and macaques in South Sulawesi; (2) macaques living in forest areas rather than in sacred temple spaces; and (3) the lack of historical association between people and macaques in South Sulawesi.
TABLE OF CONTENTS

ABSTRACT ............................................................................................................................. vi
LIST OF TABLES ................................................................................................................... ix
LIST OF FIGURES ................................................................................................................ x
ACKNOWLEDGEMENTS ..................................................................................................... xi
CHAPTER

1 INTRODUCTION .........................................................................................................1
   Background ..............................................................................................................1
   Macaques in Indonesia .............................................................................................2
   Human-Macaque Interactions in Indonesia .............................................................4
      Bali .....................................................................................................................4
      Sulawesi ..........................................................................................................6
   The Indonesian Transmigration Program ..............................................................7
   Hinduism in Bali ......................................................................................................9
   Statement of Purpose and Research Questions ......................................................11
   Significance of Study .............................................................................................12
   Organization of Thesis ...........................................................................................12

2 LITERATURE REVIEW ............................................................................................13
   Approaches in Ecological and Environmental Anthropology ...............................13
   Ethnoprimatology ..................................................................................................17
   Religion ..................................................................................................................22
      Sacredness and Ritual ......................................................................................23
      Migrant Religious Practices ............................................................................25

3 RESEARCH DESIGN .................................................................................................27
   Methodology .........................................................................................................27
   Study Site ...............................................................................................................27
      Alam Buana ........................................................................................................28
      Balirejo ..............................................................................................................29
# Table of Contents

Cendana Hitam ................................................................. 29  
Sampling and Data Collection ........................................... 30  
Data Analysis .................................................................................... 32  

4 RESULTS ......................................................................................... 33  
Knowledge and Perceptions of Local Macaques ......................... 33  
  General Opinions ........................................................................... 33  
  Macaque Sacredness ........................................................................ 38  
Factors Explaining Non-Sacredness of Local Macaques .................... 40  
  Macaque Behavior ........................................................................... 40  
  General Macaque Traits ................................................................... 42  
  Macaque Living Space ....................................................................... 43  
  Historical Context ............................................................................. 45  
  The ‘Not Yet’ Perspective ............................................................... 47  
Perceptions of Macaques in Bali ....................................................... 48  
Practicing Balinese Hinduism in Sulawesi ........................................... 53  

5 DISCUSSION AND CONCLUSIONS .............................................. 59  
Perceptions of Macaque Sacredness: Contributions to the Anthropology of 
  Religion................................................................................................. 60  
  The ‘Not Yet’ Perspective ............................................................... 60  
  Macaque Sacredness through Hinduism ........................................ 60  
  Macaque Sacredness and Temple Space ....................................... 62  
  Macaque Sacredness through Ritual Practice ................................ 63  
Navigating Symbolic Spaces in Balinese Transmigrant Communities ...... 66  
Conservation Implications ................................................................. 69  
Limitations and Future Research Directions ....................................... 72  
Conclusions .......................................................................................... 73  

REFERENCES .......................................................................................... 76  

APPENDIX  
A INTERVIEW QUESTIONS IN ENGLISH AND INDONESIAN ............... 83  
B RESPONDENT IDS ........................................................................... 86  
C VILLAGE TEMPLE SURVEY ............................................................... 88  
D CONCEPTUAL MODEL FOR HUMAN-NONHUMAN PRIMATE 
  INTERCONNECTIONS IN SYMBOLIC AND ECOLOGICAL SPHERES ....... 90
LIST OF TABLES

Table 1. Indonesian Macaque Species .......................................................................................3
Table 2. Village Size and Religious Diversity in Populationα ......................................................29
Table 3. Occupational Diversity in Sample by Numbers of People ...........................................29
Table 4. Respondent Age at Migration .....................................................................................31
Table 5. Village Temple Composition .....................................................................................44
## LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1.</td>
<td>The Indonesian archipelago featuring the island of Sulawesi in the red box and Wallace’s Line, indicated in blue.</td>
<td>3</td>
</tr>
<tr>
<td>Figure 2.</td>
<td>Booted macaque (<em>Macaca ochreata</em>) of Sulawesi</td>
<td>7</td>
</tr>
<tr>
<td>Figure 3.</td>
<td>Long-tailed macaque (<em>Macaca fascicularis</em>) of Bali</td>
<td>8</td>
</tr>
<tr>
<td>Figure 4.</td>
<td>Flow of transmigrants out of Java, Bali, Lombok and Madura into Sumatra, Indonesian Borneo and Sulawesi.</td>
<td>9</td>
</tr>
<tr>
<td>Figure 5.</td>
<td>Luwu Timur district of South Sulawesi indicated by red box (left). Blue box (top, right) denotes geographic location of transmigrant villages. Green boxes (bottom, right) indicate location of individual villages with Alam Buana at bottom, Cendana Hitam at top, left and Balirejo at top, right.</td>
<td>28</td>
</tr>
<tr>
<td>Figure 6.</td>
<td>Pet booted macaque grooming its owner</td>
<td>36</td>
</tr>
<tr>
<td>Figure 7.</td>
<td>Responses regarding whether macaques in South Sulawesi, Indonesia are considered sacred by Balinese transmigrants (N = 100)</td>
<td>39</td>
</tr>
<tr>
<td>Figure 8.</td>
<td>Opinions on macaque sacredness separated by village.</td>
<td>40</td>
</tr>
<tr>
<td>Figure 9.</td>
<td>Perceptions of macaque sacredness between older (n = 41) and younger (n = 59) generations</td>
<td>41</td>
</tr>
<tr>
<td>Figure 10.</td>
<td>Distribution of factors explaining macaque non-sacredness separated by ‘No’ (n = 91) and ‘Not yet’ (n = 30) responses.</td>
<td>48</td>
</tr>
<tr>
<td>Figure 11.</td>
<td>Map of Bali. The Balinese island Nusa Penida is indicated by a red box.</td>
<td>53</td>
</tr>
<tr>
<td>Figure 12.</td>
<td>Perceived changes in the practice of Balinese Hinduism after the migration to South Sulawesi as depicted by Balinese transmigrants (N = 100).</td>
<td>55</td>
</tr>
<tr>
<td>Figure 13.</td>
<td><em>Pura Dalem</em> in Balirejo depicting the sharp distinction between forest space and temple space.</td>
<td>67</td>
</tr>
<tr>
<td>Figure 14.</td>
<td><em>Pura Puncak</em> in Cendana Hitam on the forest edge.</td>
<td>69</td>
</tr>
<tr>
<td>Figure 15.</td>
<td>Local dog roaming around freely in the village temple (<em>Pura desa</em>) of Alam Buana before a ceremony begins.</td>
<td>70</td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENTS

I would like to thank the International Educational Exchange Program for awarding me with a Fulbright Scholarship to make this research possible. I also wish to express my gratitude to the American Indonesian Exchange Foundation (AMINEF) for their facilitation of the Indonesian visa process as well as other administrative tasks related to the Fulbright Scholarship. Pak Ngakan Putu Oka was also instrumental in his work as my Indonesian counterpart and sponsor to my research. Pak Oka’s help while preparing for fieldwork in South Sulawesi was invaluable.

Dr. Erin Riley has been amazing to work with over the course of achieving this Master’s degree, from initial conceptualizations of potential research projects to the carrying out and completion of the current one. Her positive impact is reflected not only in this thesis, but in my own academic, intellectual, and personal development. Many thanks go out to her for her untiring pursuit of excellence in her own work and in that of her students. I want to thank Dr. Frederick Conway for his informative sociocultural perspective and for many engaging discussions on Hinduism, ritual, ‘tradition’ and more. His influence in the development of this thesis has been vital to its realization. Dr. Kate Swanson contributed a much needed inter-disciplinary perspective to this work. I wish to thank her for her key insights and encouragement in constructing the final drafts of this thesis.

Special thanks go to the village heads and communities of Alam Buana, Cendana Hitam, and Balirejo for their welcoming spirit and incredible hospitality, without which this research would have been much more difficult and far less enjoyable. I also want to thank Ibu Ningsih, founder of Puri Bahasa Indonesia where I learned to speak the Indonesian Language, and my Indonesian teachers there: Mbak Sheila, Mbak Ari, and Mbak Asih.

Many thanks to my fellow friends and graduate students in the SDSU anthropology department. Special thanks to Elizabeth O’Herlihy for helping me iron out methodological issues and for feedback on other crucial aspects of this thesis.

Thanks to Stephen Wasby for his unmatched generosity in supporting this thesis.
Most notably, I want to thank both of my parents, who have given me their unconditional support that encompasses every facet of the word. Each step of this journey has been met with unbridled encouragement and enthusiasm, to which I owe any successes that I may be fortunate enough to achieve. Finally, thank you to Tria and Niko, who always remind me of the truly important things in life by being the most important things in mine.
CHAPTER 1

INTRODUCTION

The aim of this thesis is to investigate the capacity for post-migratory change in a community’s perceptions of their local environment. This research specifically pertains to Balinese transmigrants on the eastern Indonesian island of Sulawesi and the role of Hinduism in influencing their interactions with the local monkey species. The chapter begins by providing a geographic, sociocultural and historical background of Indonesia. I then contextualize the current status of the human-macaque interface in Indonesia. The relationship between monkeys and humans in Bali is then discussed more specifically, with particular attention given to the influence of the uniquely Balinese form of Hinduism through which the context for this relationship can be best understood. Here I also introduce the macaque species that are endemic to Sulawesi and characterize the relationship between them and the island’s human inhabitants. I then provide a description of the research purpose, research questions and of the study’s broader impact and significance. This chapter ends by overviewing the organization of the thesis.

BACKGROUND

The Republic of Indonesia is a vast archipelago of 17,508 islands (Central Intelligence Agency [CIA], 2011) situated along the equator between the Indian and Pacific oceans and the Australian and south Asian landmasses. Nearly two million square kilometers of dry land house a population of more than 245 million people, making Indonesia the fourth most populous country in the world (CIA, 2011). Most Indonesians identify with one of the five broad religious categories officially recognized by the government (Islam, Protestant Christianity, Roman Catholicism, Hinduism, and Buddhism) (Schiller, 1996). The vast majority of citizens are Islamic (86.1%), followed by Protestant (5.7%), Roman Catholic (3%) and Hindu (1.8%) (CIA, 2011). Over 3% of the population is listed as having an “unspecified” religion (CIA, 2011), likely due to the large presence of pagan beliefs and traditions (Atkinson, 1983). Widespread local traditions and cultural identity contribute to a
complex and diverse expression of ethnicity in Indonesia. There are over 300 distinct ethnic groups throughout the archipelago with their own languages and cultural practices (Hoey, 2003). Although each of these ethnic groups largely maintains a sense of regional continuity, intra- and inter-island communication continues to increase. The national language, *Bahasa Indonesia*, helps to facilitate cross-cultural communication among Indonesia’s diverse citizenry.

The island of Sulawesi, where this research took place, is located in the eastern half of the Indonesian archipelago and is situated to the northeast of Java, across the Java Sea (Figure 1). The biogeographic status of Sulawesi has been under examination ever since its unique floral and faunal repertoire in relation to the surrounding Indonesian islands was noted by the naturalist Alfred Russel Wallace. Wallace observed a general separation of Asian-like biota from more Australian-like biota between the western and eastern halves of Indonesia, respectively. Wallace’s Line, a term originally penned by Thomas Henry Huxley, was thusly situated between the islands of Borneo and Sulawesi. The area to the east of Wallace’s Line, situated geologically between the Sunda and Sahel continental shelves, was termed “Wallacea” to highlight the gradual mixing of Asian and Australian biota and to recognize the region’s high level of inter-island endemism (Mayr, 1944). Recently, Wallacea has been included as one of 25 global biodiversity hotspots to promote the conservation of the many unique species throughout these islands (Myers, Mittermeier, Mittermeier, Da Fonseca, and Kent, 2000). For instance, 20% of macaque species diversity occurs within this area, which comprises only 2% of their range.

**MACAQUES IN INDONESIA**

Macaques (*Macaca spp.*) are the most geographically widespread nonhuman primate in the world. Current interpretations of macaque taxonomy indicate that 10 of the 21 macaque species inhabit Indonesia, ranging from Sumatra and the Mentawai Islands in the west to Sulawesi and Flores in the east (Table 1). These 10 Indonesian macaque species belong to two of the three phylogenetic macaque lineages (Abegg & Thierry, 2002). Evidence indicates that an archaic form of the ancestral *silenus-sylvanus* lineage arrived in Indonesia around 800,000 years ago (Eudey, 1980). Indonesian macaque species that comprise this lineage include the pig tailed macaque (*M. nemestrina*) of Sumatra and Borneo,

Table 1. Indonesian Macaque Species

<table>
<thead>
<tr>
<th>Macaque species</th>
<th>Common name</th>
<th>Geographic location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macaca fascicularis</td>
<td>Long-tailed</td>
<td>Sumatra, Java, Bali, Kalimantan</td>
</tr>
<tr>
<td>M. pagensis</td>
<td>Mentawai</td>
<td>Mentawai islands</td>
</tr>
<tr>
<td>M. nemestrina</td>
<td>Pigtailed</td>
<td>Sumatra, Kalimantan</td>
</tr>
<tr>
<td>M. tonkeana</td>
<td>Tonkean</td>
<td>Central Sulawesi</td>
</tr>
<tr>
<td>M. nigra</td>
<td>Black crested</td>
<td>Northeastern Sulawesi</td>
</tr>
<tr>
<td>M. nigrescens</td>
<td>Gorontalo</td>
<td>North Sulawesi</td>
</tr>
<tr>
<td>M. hecki</td>
<td>Heck’s</td>
<td>Northwestern Sulawesi</td>
</tr>
<tr>
<td>M. maura</td>
<td>Moor</td>
<td>Southwestern Sulawesi</td>
</tr>
<tr>
<td>M. ochreata</td>
<td>Booted</td>
<td>Southeastern Sulawesi</td>
</tr>
<tr>
<td>M. brunnescens(^a)</td>
<td>Buton</td>
<td>Buton and Muna Islands</td>
</tr>
</tbody>
</table>

\(^a\)M. brunnescens is considered to be a subspecies of M. ochreata by IUCN.
the Mentawai macaque (*M. pagensis*) in the Mentawai islands, and the seven macaque species endemic to Sulawesi (Abegg & Thierry, 2002; Fooden, 1969). The youngest macaque lineage, *fascicularis*, first appears in Indonesia as an archaic form of the long-tailed macaque (*M. fascicularis*) that arrived around 130,000 years ago (Abegg & Thierry, 2002). The present distribution of long-tailed macaques stretches from Sumatra to Flores and includes all major islands west of Wallace’s line, giving it a broader range than any other Indonesian macaque species (Abegg & Thierry, 2002).

**HUMAN-MACAQUE INTERACTIONS IN INDONESIA**

Humans live sympatrically with macaques in many different contexts throughout their distribution in Indonesia. These sympatric associations can be characterized by varying levels of conflict and even cooperation. The following subsections specifically detail the human-macaque interface in Bali and Sulawesi.

**Bali**

Of the ten macaque species known to inhabit Indonesia only the long-tailed macaque (*Macaca fascicularis*) appears in Bali, where they share an extensive history of sympatry with humans (Fuentes, Southern, & Suaryana, 2005; Loudon, Howells, & Fuentes, 2006; Wheatley, 1999). This relationship between humans and macaques in Bali is largely characterized by the space that they share. Macaques in Bali are known to occur at higher densities at Hindu temple sites more often than at non-temple sites (Wolfe & Fuentes, 2007). This localization of Bali’s macaque populations around temples is linked to a number of factors, but is best understood by first addressing the complex temple systems of Bali and their relationship to the local ecology.

The landscape of Bali is filled with thousands of temples that assume different roles in regulating aspects of Balinese society (Lansing, 1983). A single village can have up to 50 temples in and around it, each with a specific function and purpose (Lansing, 1983). For example, the famous Balinese wet rice agricultural system is highly regulated by the *subak* collective through the use of strategically placed water temples (Geertz, 1972; Lansing, 1983). These temples are important for their role in coordinating rice paddy irrigation and developing social cohesion among farmers (Geertz, 1972; Lansing, 1983). It is worth noting
the dual role of this particular temple system in both ecological and social spheres (Geertz, 1972). Ecologically speaking, aside from its obvious agricultural significance, the manufacturing of irrigation canals has resulted in riparian forest growth entwined elaborately throughout much of Bali (Fuentes et al., 2005). These forest corridors are frequently utilized by the highly adaptable long-tailed macaques (Fuentes et al., 2005). Therefore, the water temple sites and associated ecological features serve as important examples of situations in which animal species benefit from anthropogenic effects on the environment (Wolfe & Fuentes, 2007).

Although the aforementioned water temples are agriculturally and ecologically significant, they are not necessarily the most sacred. The *Pura Dalem* temples are associated with each village’s ancestral spirits and located in the forests just outside of each village (Fuentes et al., 2005). These funerary temples and the forests surrounding them are highly sacred due to their close relationship with the spiritual world (Fuentes et al., 2005). There are taboos in place guarding against the potentially degrading use of these sacred forests to ensure that the ancestral spirits are not disturbed (Fuentes et al., 2005). The forests themselves are colloquially known as ‘monkey forests’ when macaques inhabit them (Fuentes et al., 2005; Wheatley, 1999). Monkeys associated with these forest temple sites may be considered sacred and offered a degree of protection as a result (Fuentes et al., 2005; Loudon et al., 2006; Wheatley, 1999). Many of the larger monkey forest temples provision the local macaques, keeping them in the area to serve the additional purpose of tourist attraction (Fuentes, Shaw, & Cortes, 2007). Fuentes et al. (2007) believe that along with religious taboos tourism may be advantageous to the macaques by providing them with additional food sources from the tourists, but warn that the provisioning of low-quality food items and promotion of a sedentary lifestyle may end up having adverse effects on overall macaque health. Another potentially negative result of increased tourism is disease transmission between macaques and humans (Engel et al., 2006; Fuentes, 2006a). Diseases that move from macaques to humans may end up fostering negative opinions of the sacred macaques in these tourist sites.
Sulawesi

While Bali has only one species of macaque, the island of Sulawesi is home to seven (Fooden, 1969). Phylogenetic research indicates a high level of regional endemism among Sulawesi’s macaque species, which suggests there were long periods of geographic separation that allowed for allopatric speciation (Evans et al., 2003) and the resulting morphological differences among them (Groves, 1980). This geographic separation was facilitated by Sulawesi itself becoming a minor archipelago in its geological past, preventing migration throughout the island and allowing these macaque species to adapt to different ecological niches in different parts of what is now the island of Sulawesi (Evans et al., 2003; Fooden, 1969; Groves, 1980). In many areas these niches have been influenced by agricultural forest conversion and thus introduced alternative food sources for the macaques to occasionally utilize (Riley, 2007a; 2010a), displaying the adaptability characteristic of their genus. Aside from macaques, no other cercopithecoids are present in Sulawesi and therefore they only compete against themselves when their ranges overlap or against humans in areas of sympatry (Bynum, Bynum, & Supriatna, 1997; Riley, 2010a).

In the province of South Sulawesi where my research was conducted there were potentially two macaque species that could have sympatric associations with the Balinese transmigrants, although only one was ever identified by me during the course of this research. The Tonkean macaque (Macaca tonkeana) has the most extensive range in Sulawesi, part of which extends into the northern region of South Sulawesi (Riley, Suryobroto, & Maestripieri, 2007) where my research was conducted. Despite this geographic proximity I never encountered Tonkean macaques at my study sites. Instead, the booted macaque (Macaca ochreata) was positively identified by me in the forest near two of the villages in my study. Booted macaques are primarily located in Southeast Sulawesi but extend into the northeast portion of the southern province as well (Riley et al., 2007), where they are known to exist in areas settled by Balinese transmigrant communities (Peterson, field notes). Morphologically, booted macaques (Figure 2) in Sulawesi can be distinguished from long-tailed macaques (Figure 3) in Bali on the basis of pelage color and tail morphology.
THE INDONESIAN TRANSMISSION PROGRAM

The Hindu population of Sulawesi is derived almost exclusively from Balinese transmigrants (Davis, 1976; Whitten, Mustafa, & Henderson, 1987). Many Balinese people moved to Sulawesi as part of the transmigration program instituted by the Indonesian government in the 1950s, which extended officially into the 1980s with funding from the World Bank (Davis, 1976; World Bank, 1988). This program was intended to alleviate increasing population pressure on the islands of Java, Bali, Lombok, and Madura (Figure 4) (Whitten et al., 1987; World Bank, 1988). Through the transmigration program thousands of Balinese families were relocated to other areas in Indonesia, including Sulawesi (Davis, 1976; Whitten et al., 1987). Participation in the transmigration from Bali to Sulawesi was voluntary and individual households would register with the local transmigration office. Therefore, transmigrant communities were often made up of a random aggregate of the
Balinese population that was in need of farmland and therefore did not maintain much regional continuity (Hoey, 2003). This amalgamation of families with no shared history or regional cultural affiliation in Bali into “planned communities” required the new community’s identity to be created upon arrival in the transmigrant area (Hoey, 2003). The location of each transmigrant community was decided by the Indonesian government and upon arrival each head of household was given 2 ha of land, 25% of which was dedicated to living space and the rest intended for rice fields and gardens (Davis, 1976). Government workers surveyed the land and broke it up into household plots, which were assigned to the transmigrants lottery-style (Peterson, field notes). Uninhabited forest regions were typically selected for new transmigrant settlements and first generation transmigrants were often charged with the task of clearing the forest to make room for their plantations and rice fields (Davis, 1976).
HINDUISM IN BALI

The practice of Hinduism in Bali has seen much change in the past 100 years or so, most notably beginning with the arrival of the Dutch colonial regime in the early 20th century. When the Dutch colonists first arrived on the southern shores of Bali in 1906, and again in 1908, they were introduced to the inspiring power of Balinese ritual performance by way of two mass suicides led by the kings whose kingdoms they were invading (Geertz, 1980; Howe, 2005). After spending more time on the island and observing the loose and dynamic Balinese caste system, as well as the presence of high ranking priests, the Dutch colonial power assumed they were practicing a degraded form of Indian Hinduism and that it was their responsibility to ‘restore’ it back to its traditional state (Howe, 2005). In doing so, the Balinese caste system was made rigid and immutable where it had once been characterized by its fluidity and the Brahmana priests were elevated to its highest status, which had once been ambiguously occupied by both priests and kings (Howe, 2005).

Tourism, first administered by the Dutch in their self-appointed role as curators of Balinese culture, has also made an imprint on Balinese religious practices. One of the most salient modifications is the introduction of the concept of ‘sacredness’ (Howe, 2005; Picard, 1996). In the interest of tourism, the Balinese were forced to distinguish between dances that
were sacred or profane to determine which could be performed to visitors outside of ritual contexts (Howe, 2005; Picard, 1996). This task proved difficult because the Balinese had no previous conceptual model for the Western notion of ‘sacredness’, as evidenced by the absence of such a word in the Balinese language (Howe, 2005). Therefore, the concept of sacredness, as applied to dances, spaces, macaques, or otherwise, is a relatively recent introduction that was originally applied, somewhat ironically, in the context of tourism.

The primary religion in Bali is now known officially as Agama Hindu, which is recognized as a sanctioned religion of Indonesia by the country’s Ministry of Religion (Howe, 2005). Historically speaking, Agama Hindu is a recent construction that was shaped from aspects of the colonially-affected Balinese spiritualism in the 1950s to comply with the religious requirements laid out in the Pancasila (the underpinning of the Indonesian constitution) of the newly independent Indonesian nation (Howe, 2005). Under national law each religion in Indonesia must be monotheistic with a holy book and a prophet, requirements which originally excluded the Balinese religion from being included as an Indonesian ‘agama’ (Howe, 2005). It wasn’t until 1958, eight years after the Dutch officially recognized Indonesian independence, that Balinese religion was accepted by the Indonesian government as Agama Hindu Bali (later, Agama Hindu) (Howe, 2005). This transformation to becoming a sanctioned religion was facilitated by a pronounced effort to incorporate Hindu texts, scholarship and theology from India as well as the reification of the relatively minor deity Sanghyang Widi as the religion’s one, true god (Howe, 2005). These changes had a homogenizing, regulatory effect on the Balinese religion that previously operated within more diverse regionally based group rituals. These rituals were organized by the local communities and focused largely on ancestral spirit worship, rather than a central deity (Howe, 2005).

Among the newly implemented religious doctrines to be integrated into Agama Hindu was the panca cradha (Howe, 2005). This principle describes the five pillars of Agama Hindu as being: (1) the recognition of Sanghyang Widi as the supreme deity; (2) the belief in an eternal soul (atman); (3) the belief in rewards and consequences for every action (karma); (4) belief in the process of reincarnation (samsara); and (5) belief in the eventual release from the cycle of reincarnation to unite with God (moksa) (Howe, 2005; Jensen & Suryani, 1992). Moksa can only be achieved by atoning for the bad deeds of past lives through good
deeds in the current one until eventually the ‘perfect life’ is attained (Jensen & Suryani, 1992). Daily life among the Balinese is therefore highly influenced by the philosophy of *Tri Hita Karana* which states that health, happiness and prosperity are achieved by living harmoniously with God the Creator, fellow humans and the universe (Jaman, 2006; Jensen & Suryani, 1992; Wheatley, 1999).

Sacred monkey forests have also become associated with the philosophy of *Tri Hita Karana* wherein management of these forests must develop balance and harmony between God, people of local and nonlocal (i.e., tourists) ancestry, and the proximate universe (i.e., local environment) (Wheatley, 1999). The relationship with God is maintained through the temples’ ritual activity and the environment is actively conserved by the local community, both causes being supplemented by income gained from nonlocal tourists who are welcome to visit the temples and forests (Wheatley, 1999). Therefore, Balinese funerary temples and the associated monkey forests represent a convergence point for religious, ecological and economic factors, resulting in taboos against harming the macaques and their habitat. It is here, within these temple sites and sacred grounds, that interactions between the Balinese people and macaques have largely been examined (e.g., Fuentes et al., 2007; Loudon et al., 2006; Wheatley, 1999).

**STATEMENT OF PURPOSE AND RESEARCH QUESTIONS**

The purpose of this thesis is to understand the relationship between Balinese transmigrants in Sulawesi and the local macaque populations inhabiting the island. Specifically, I address whether this resettling in Sulawesi has affected Balinese transmigrant perceptions of macaque sacredness. Although recent studies suggest the potential limitation of macaque sacredness to sacred temple sites in Bali (e.g., Jones-Engel, Shillaci, Engel, Paputungan, & Froehlich, 2005; Schillaci et al., 2010), these conclusions have not yet been systematically investigated in a study of their own.

Four primary research questions guided this thesis:

1. Are macaques in Sulawesi considered sacred by Balinese transmigrants?
   1b. Which factors are most relevant for understanding why or why not?

2. Are there intergenerational differences in perceptions of Sulawesi macaques among Balinese transmigrants?
3. How are the local macaque populations of Sulawesi perceived by the Balinese transmigrants in general?

4. Have there been changes in the transmigrants’ practice of Balinese Hinduism since moving to Sulawesi?

**SIGNIFICANCE OF STUDY**

Relationships between human and nonhuman primates are not static or absolute across space and time. Each zone of human and nonhuman primate sympatry represents a unique combination of variables that has manifested into the current circumstances we see today. Through understanding how current sympatric associations developed we may be better equipped to recognize the potential future directions of human and nonhuman primate relationships. Therefore, results from this research will contribute to increased recognition of the spatial and social contexts affecting human perceptions of nonhuman primates and could ultimately be applied to conservation programs to increase their effectiveness in protecting nonhuman primate ecological spaces without conflicting with local conceptualizations of that space. This project focuses on post-migratory Balinese Hinduism, and the mythology surrounding it, as a starting point for understanding Balinese transmigrants’ relationship with local macaque populations. Specific theoretical contributions of this work will be in the areas of migrant relations with nonhuman primates (cf., Colquhoun, 2005; Riley, 2007b); nonhuman primates and sacred spaces (cf., Fuentes et al., 2005; Loudon et al., 2006; Wheatley, 1999); and contextualizing perceptions of nonhuman primates (cf., Fuentes et al., 2007; Lee & Priston, 2005; Riley, 2010b; Saj, Mather, & Sicotte, 2006).

**ORGANIZATION OF THESIS**

In Chapter 2, I review the relevant scholarly literature in the primary fields that informed this research. I detail my methodological approach in Chapter 3 by describing my research design, study site, sample and data analysis techniques. In Chapter 4 I provide the results as they pertain to my research questions and the themes that emerged in data analysis. In the 5th Chapter I contextualize my results and discuss their relevance to the human-macaque interface.
CHAPTER 2

LITERATURE REVIEW

To situate my research within the anthropological literature I review several interrelated theoretical frameworks. The guiding framework of my thesis is the recently conceptualized ethnoprimatological model. Ethnoprimatology is a theoretical and methodological framework with relevance to both cultural and biological anthropology (Sponsel, 1997). In the first section I introduce the important theoretical frameworks that contribute to ethnoprimatology from cultural anthropology, such as cultural ecology and ethnoecology (i.e., ecological anthropology). Next I review the theoretical framework of ethnoprimatology itself and present the field’s current body of research. The final section describes the concept of religion in anthropology. I first discuss the literature on sacredness and the meaning of ritual, followed by a subsection on mythology and folklore. This chapter closes with a description of the effect of migration on religious perspectives. Specifically, I discuss how religious practices, symbols and identities are influenced by new social, ecological and political landscapes.

APPROACHES IN ECOLOGICAL AND ENVIRONMENTAL ANTHROPOLOGY

Julian Steward first conceptualized cultural ecology as a way to understand the importance of the relationship between the local environment and a community’s cultural processes. This theoretical framework established that humans did not just live in ecosystems, but have a hand in constructing and influencing them with cultural, rather than solely biological, adaptations (Frake, 1962; Steward, 1955). Additionally, cultural ecology situated itself in opposition to environmental determinism by suggesting that the social system of a society is affected, but not determined, by the local environment (Steward, 1955). For example, the Shoshonean Indians of the Great Basin exhibited social fragmentation in which familial units often travelled alone throughout the spring and summer foraging for pine nuts and only coming together with other families in makeshift settlements during the
fall and winter months (Steward, 1955). During these times of inter-family assemblage certain activities, such as fishing and hunting, would promote cooperation between family units but would not result in permanent associations between them (Steward, 1955). Steward attributed this lack of permanent communal living to the heavy reliance on wild plant materials and the seasonal availability of those food items, which would likely cause high levels of conflict within a large society. Here the environment is depicted as a passive, limiting factor in the social arrangements among the Shoshonean Indians. Under this framework, the environment facilitates cultural behavior rather than dictating it.

Frake (1962) employs the cultural ecological framework to portray the cyclical nature of the relationship between culture and environment in more detail. The Subanun of the Philippines, like the Shoshonean Indians, also live in family units dispersed throughout their environment in relation to their means of subsistence (Frake, 1962). The subsistence pattern of the Subanun, however, is swidden agriculture, which has a substantial impact on the surrounding ecology (Frake, 1962). Household positions are determined based on their distance relative to their particular swidden field as well as areas of wild forest (Frake, 1962). Therefore, the living arrangements and social structure of the Subanun are shaped by the local environment, which is then modified by the Subanun themselves for the purposes of subsistence.

After the establishment of cultural ecology many ecologically-based theoretical frameworks emerged that can be recognized as comprising the current field of ecological and environmental anthropology. Ethnoecology is one of these theoretical perspectives and it focuses principally on indigenous ecological knowledge of the surrounding environment rather than solely subsistence strategies and cultural adaptations to the environment. An important facet of research within ethnoecology, for instance, is concerned with understanding how indigenous ecological knowledge informs local land-use patterns (Posey et al., 1984). In this way the ethnoecological framework has been used to offer alternative strategies for resource management that incorporate local (i.e., emic) models of land-use (Posey et al., 1984) or to legitimize indigenous agricultural practices that have been challenged by researchers from industrialized societies (Carneiro, 2008; Conklin, 2008). For example, swidden agriculture, pejoratively called ‘slash and burn’ due to its method of fertilizing soil with the ashes of felled trees and other plants, has been characterized as
haphazardly destructive by outside environmentalists concerned with developing ‘sustainable’ land-use patterns and applying them locally (Dove, 1983). To counter this depiction of swidden agriculture, researchers have looked at its long-term effects on the local ecology. Plant diversity actually increases with swidden agriculture over time, but for this to occur the system must complete its cycle of harvesting, planting and fallowing, which may take up to 10 years to complete (Dove, 1983; Fox et al., 2000). Due to this secondary forest regeneration cycle, swidden agriculture is actually less degrading to the environment than rice paddies (Frake, 1962) or permanent agriculture and agroforestry (Fox et al., 2000). Additionally, researchers have investigated the yield productivity of swidden after it had been called into question. They found that swidden agriculturalists produce far more efficiently than some government sponsored patterns of land-use, such as commercial logging (Dove, 1983). These examples demonstrate the relevance of ethnoecological research, especially in the field of conservation where Western-influenced public policy may be counterintuitive to local ways of life.

Other studies in ethnoecology focus on ethnobiological descriptions of indigenous classification systems (Berlin, 1992; Hunn, 1982). Early studies in ethnobiology sought to understand how indigenous groups conceptualized the environment by mapping out their categorizations of plant and animal species within it (Berlin, 1992). Interesting theoretical debates arose over how this ecological knowledge is acquired and whether it is evidence for a ‘natural order’ to the world (Berlin, 1992). Ingold (2000) argued that as anthropologists we should not be interested in comparing indigenous conceptualizations of nature to our own perspectives but rather in simply understanding the cultural meanings behind these representations. Ingold’s is the approach I have adopted for my study wherein the primary goal is to relate perceptions of macaque sacredness to the transmigrant experience of transitioning cultural meanings to new ecological surroundings. Ethnobiological classification, however, makes up a small but important component of my research. I am interested in understanding how the Balinese transmigrants classify the macaque species they interact with in Sulawesi in relation to the long-tailed macaque of Bali.

Ellen (2008) argues that indigenous conceptualizations of nature are the direct result of interactions with, and utilization of, local ecology. Furthermore, as a community’s environment changes through time, so do aspects of its cultural and social milieu (Ellen,
2008). Specifically, ecological knowledge must adapt to the new ecological context, which consequently affects cultural knowledge and the referent social values (Ellen, 2008). The implication here is that long-term cultural interaction with the surrounding environment contributes to cultural institutions that are dynamic rather than static. This dialectical relationship between humans and their environment is the cornerstone of the theoretical framework of historical ecology (Balée, 1998; Crumley, 1994). Historical ecology separates itself from the materialism of subsistence-based frameworks (e.g., cultural ecology) by focusing on the importance of historical events, rather than evolutionary processes, in facilitating cultural change (Balée, 1998). Historical ecology also maintains the more widely acknowledged theoretical position that “much, if not all, of the nonhuman biosphere has been affected by human activity” (Balée, 1998, p. 14). This long-term historical perspective regarding the diachronic relationship between humans and the environment is also one of the pillars of the ethnnoprimatological framework (Fuentes, 2006b; Riley, 2006).

The ecosystems approach in ecological anthropology sought to reconcile the dichotomous portrayal of ‘nature’ and ‘culture’ by conceptualizing humans as one component of a larger ecological system (Davidson-Hunt & Berkes, 2003). At its core, systems ecology allows researchers to recognize that cultural changes are not necessarily directly related to subsistence strategies, but can be the product of other social, political or biological factors (Davidson-Hunt & Berkes, 2003). Global climate change, for instance, is an issue with widespread sociopolitical and ecological influence. Anthropologists using the ecosystems approach are well positioned to explore the effects of political factors, such as resource management policies in response to climate change, on local communities within their larger ecological system (Moran, 1990). Systems ecology is inherently cyclical, in that changing cultural behavior in response to ecological changes in a system will have a return effect on that ecosystem. Changes to ecological systems are therefore part of the ongoing process of niche construction, which humans are particularly powerful in influencing given their capacity for cumulative cultural advancement (Odling-Smee, Laland, & Feldman, 2003).

Studies of human-environment relations also include examinations of human-animal relationships more specifically. Animals have long been included in the works of anthropologists, however, they have typically been relegated to passive roles as sacred
objects or matter for mythology and folklore (e.g., Lévi-Strauss, 1962; Radcliffe-Brown, 1964), fodder for human subsistence (e.g., Rappaport, 1967), and even evolutionary precedents for aspects of human behavior (e.g., Ardrey, 1966; Morgan, 1868; Wrangham & Peterson, 1996). Animal husbandry among pastoralists has often been studied by anthropologists who demonstrate the pervasiveness of that livestock species in both economic and symbolic cultural spheres (e.g., Galaty & Johnson, 1990; Harris, 1966). More recent research focuses on reinterpreting previous anthropological assumptions about human-animal relationships, such as recognizing the dynamic nature of domestication and its implications for relationships between humans and non-domesticated local animals, the larger ecological system in which they live, and other humans (Mullin, 2002). Furthermore, environmental anthropologists are now interested in understanding how human-animal relationships change over time (e.g., through global climate change) and the ensuing effects on local symbolic culture and subsistence culture (Crate, 2008). This resurgence of nonhuman animals in anthropological studies situates them not only within contemporary issues of morality and politics, but contributes to reimagining the concept of “culture” itself (Kirksey & Helmreich, 2010; Mullin, 2002). Multispecies ethnography, as introduced by Kirksey and Helmreich (2010), follows in the footsteps of the approaches in environmental anthropology described above but brings human-animal relations to the forefront.

**ETHNOPRIMATOLOGY**

The principal theoretical framework informing this thesis is ethnoprimatology. Ethnoprimatology, like certain approaches in ecological and environmental anthropology, is interested in observing human contributions to ecological niche construction, although more specifically regarding the habitats of nonhuman primates (Fuentes, 2010). The ethnoprimatological framework allows researchers to explore how these culturally-shaped environments affect nonhuman primate behavior and sociality. The ethnoprimatological lens therefore encompasses the ecological, biological and cultural connections between human and nonhuman primates (Fuentes, 2006b; Riley, 2010b). This burgeoning field was only recently conceived by Sponsel (1997) and even more recently brought into the academic spotlight (Fuentes, 2006b; Fuentes & Wolfe, 2002; Paterson & Wallis, 2005; Riley, 2006). Ethnoprimatology has the potential to be a powerful theoretical tool and is strengthened by
its inherently integrative approach (Fuentes, 2006b; Riley, 2006). Its practitioners combine research in primate behavioral ecology with ethnographic accounts of human conceptualizations of the human-nonhuman primate interface (Riley, 2006). In doing so the ethnoprimatologist recognizes the embeddedness of human and nonhuman primates in an ecologically and culturally constructed web of interaction. Vital to this perspective is the conceptual inclusion of local human beings as a naturally occurring part of the environment whose relationships with nonhuman primates should never be dismissed as contextually ‘unnatural’ (Riley, 2006). In fact, environments typically assumed to be ‘pristine’ or unaffected by human contact may actually have long histories of human impact and modification (Balée, 1998; Fuentes et al., 2005; Lansing, 1983; Riley, 2006). Here the concept of niche construction is integral to our understanding of the complex, dialectical relationships between human and nonhuman primates that not only exist within these niches, but contribute to their social and ecological development (Fuentes, 2010). For example, playing upon this notion of ‘natural’ and ‘unnatural’ nonhuman primate habitats, Fuentes et al. (2007) detail Bali’s sacred temple site context in which macaques often serve as tourist attractions. This situation is considered unique for ecotourism because it does not focus on bringing people out to ‘pristine’ environments to view primates in their ‘natural’ habitat, but rather takes them to areas in which human and nonhuman primates are sympatric, and have been for centuries (Fuentes et al., 2007). Increased ecotourism is also associated with economic gains for local communities provided by the consistent flow of travelers to the area (Fuentes et al., 2007; Schillaci et al., 2010).

Ecological contexts that display obvious anthropogenic modifications are also central to the ethnoprimatological framework. Such research employs both ecologically and socioculturally oriented theoretical positions to explore topics like crop raiding (Hill, 2005; Paterson, 2005; Riley, 2007b) and nonhuman primate responses to habitat alteration (Riley, 2007a). For example, studies on crop raiding focus primarily on recognizing the contexts under which nonhuman primates crop raid (i.e., ecological facets) as well as reactions to crop raiding from local farmers (i.e., cultural facets). Regarding ecological facets, Hockings, Anderson, and Matsuzawa (2009) found that chimpanzees in the Republic of Guinea displayed seasonal variations in crop raiding and were more likely to exploit local farmers’ crops during times of wild fruit scarcity. This research suggests that certain cultivated foods
are utilized by nonhuman primates are fallback foods (Hockings et al., 2009), which could ultimately influence behavioral or social adaptations in the short term and morphological adaptations in the long term (Marshall & Wrangham, 2007). Priston, Wyper, and Lee (2012) found that 10 meters is generally as far as macaques will travel outside of the forest to find crops. These authors suggest that farmers can take proactive strategies such as planting buffer crops between their farmland and the forest or situating the macaques’ preferred crops farther away from the forest edge and planting less desirable crops closer to the forest (Priston et al., 2012).

A recent study conducted by Riley (2007b) investigated the cultural facets of nonhuman primate crop raiding by exploring farmers’ perceptions of crop raiding by macaques in Lore Lindu National Park, Central Sulawesi, Indonesia. She found that the macaques did not actually consume as much cacao crop as the farmers suggested (Riley, 2007b). Regardless of the actual amount of crop raiding by macaques, local farmers’ perceptions of them will be dictated by their perceptions of crop raiding. Along with perceptions of crop raiding, fear of nonhuman primates may also contribute to the perpetuation of negative perceptions (Campbell-Smith, Simanjorang, Leader-Williams, & Linkie, 2010).

Research into nonhuman primate responses to habitat destruction has yielded diverse results. Riley (2007a) compared daily path lengths (DPL) between two groups of Tonkean macaques in central Sulawesi, Indonesia and found that the group in the more heavily anthropogenically modified habitat had smaller DPLs than the group in the non-affected habitat, which in this case has been regarded as a behavioral adaptation to save energy. Another study comparing capuchin monkey activity budgets in commensal and noncommensal habitats found no difference in foraging skills between the two populations, suggesting that capuchins may be highly adaptable in the wake of environmental modifications (McKinney, 2011). Some work, however, has found that certain macaque populations in the Indonesian Mentawai islands decrease in size and density after their habitats undergo severe habitat disturbance (Paciulli, 2010). These varied results demonstrate that each nonhuman primate population can respond differently to anthropogenic habitat alteration and that more research is necessary to identify situations in which nonhuman primates are most adversely affected by habitat modification.
An emerging constituent of ecologically-oriented ethnoprimatological research is the study of infectious disease and its ability to spread between human and nonhuman primate populations (Fuentes, 2006b; Jones-Engel et al., 2005; Wallis & Lee, 1999). Simian Foamy Virus (SFV) was just recently discovered in long-tailed macaques in Bali and is known to be transmittable to humans who are bitten by them (Engel et al., 2006). Researchers are also interested in studying diseases that are transmitted from humans to nonhuman primates, such as influenzas, measles, and various types of gastrointestinal parasites (Jones-Engel et al., 2005; Schillaci et al., 2010). Along with understanding the ecological processes involved in bi-directional disease transmission, ethnorammatologists are interested in the effect that disease transmission may have on local humans’ perceptions of nonhuman primates (Fuentes, 2006a).

The inclusion of nonhuman primates in the symbolic worldview of humans, and how that symbolism affects human attitudes towards (and the treatment of) those nonhuman primate species, is an important aspect of socioculturally-oriented ethnoprimatological research (Riley, Wolfe, & Fuentes, 2011). Mythology often serves the dual purpose of entertainment and philosophical speculation, highlighting the society’s understanding of the ecological processes around them (Shepard, 2002). When mythical tales focus on a specific animal species, the animal is usually anthropomorphized to facilitate an understanding of particular aspects of the human condition, such as illness, death, and even desirable or undesirable personality traits (Shepard, 2002). Nonhuman primate species are ideal characters in mythology due to their readily observable behaviors and habits which can be used as analogues to aspects of human behavior (Mullin, 1999). For example, the Amazonian Matsigenka society conceives of the howler monkeys’ mythological origins as a shaman’s punishment for being lazy (Shepard, 2002). This characterization of howler monkeys serves as a constant reminder of the perils of laziness (Shepard, 2002).

An important outcome of mythology and folklore can be the local conservation of a particular species due to taboos against harming them. Taboos are often associated with mythology and folklore and therefore protect species by virtue of cultural custom rather than formally prescribed prohibitions (Saj et al., 2006). For Colding and Folke (2001) these taboos represent informal institutions. Opposed to formal institutions, informal institutions are self-imposed and self-monitored conventions or norms (Colding & Folke, 2001).
Research has suggested that these existing informal institutions can be useful strategies for primate species conservation (Baker, Tanimola, Olubode, & Garshelis, 2009; Saj et al., 2006).

In Bali, perceptions of monkey forest sacredness are situated within the group of taboos referred to by Colding and Folke (2001) more specifically as ‘habitat taboos’. These taboos serve to protect specific habitats by regulating adherents’ interactions with the environment in terms of resource access and use (Colding & Folke, 2001). Habitat taboos are often associated with religious or spiritual perceptions of sacredness that facilitate the habitat’s protection (Colding & Folke, 2001). Plant and animal species are often protected under habitat taboos by extension through bans on hunting, fishing and harvesting any of the resources within the habitat (Colding & Folke, 2001). While habitats protected by these taboos can comprise any type of landscape, the most relevant for this study are forested regions. Forest patches receiving protection under such taboos are commonly referred to as sacred groves (Baker et al., 2009; Colding & Folke, 2001). Often located within these sacred groves are shrines possessing a religious or spiritual significance that becomes applied to the entire area surrounding them (Baker et al., 2009; Colding & Folke, 2001).

Baker et al. (2009) surveyed the distribution of three sacred guenon species in relation to sacred groves of southern Nigeria. Along with sampling previously identified sacred groves in the region they found nine sacred groves that had not been reported in the literature. Each of these new groves contained only a single monkey species (Baker et al., 2009). These authors suggest that it is quite common for a sacred monkey species to be the only one inhabiting a sacred grove (Baker et al., 2009). They attribute the lack of primate species diversity in sacred groves to increased hunting pressures on the species that are not protected by the taboos, which drives them out and leaves only the sacred species to inhabit the area (Baker et al., 2009). Reasons for favoring one species over another in the taboo’s origin are still not well understood. Baker et al. (2009) theorize that the sacred species may have been considered less aggressive towards people or less destructive to their crops and therefore favored over others. It is unclear whether the sacred groves in this study ever actually housed multiple monkey species because Baker et al. (2009) were only able to acquire anecdotal memories from a single village elder describing the presence other species in the forest.
While sampling the known sacred groves Baker et al. (2009) noticed interesting changes in local attitudes towards them. In some cases shrines were abandoned by their priests due to lack of interest in maintaining them and no new priest was ever appointed, thereby resulting in the loss of reverence for the sacred grove around it. The authors also report an overall shrinkage in sacred grove size based on local reports and measurements conducted by the research team. These reductions were attributed largely to agricultural expansion and development. Consequently the sacred monkeys within the forest become less tolerated during conflicts such as crop raiding (Baker et al., 2009). Changes like this in taboo enforcement regarding monkey species can have a large impact on the species’ conservation, especially if it is “Endangered” or “Critically Endangered” before losing its revered status among local people.

Although cultural taboos can contribute to nonhuman primate conservation (e.g., Baker et al., 2009; Saj et al., 2006), it may not always be effective to rely solely on culturally maintained resource and habitat taboos for conservation programs (e.g., Colquhoun, 2005; Riley, 2010b). Recent research suggests that differing cultural beliefs among separate ethnic groups complicates the idea of structuring permanent conservation programs on the customs of one group when others have equal access to the same resources. For instance, migrants to Lore Lindu National Park, Central Sulawesi, Indonesia do not share the same level of reverence for local Tonkean macaques (*Macaca tonkeana*) as the indigenous community, which is attributed largely to the migrants’ lack of cultural associations with the local Tonkean macaques (Riley, 2010b). Similar observations were made in Madagascar concerning local *fadys* (taboos) protecting certain lemur species. Migrants who came from other areas of Madagascar would not abide by the local fadys and instead hunt lemurs freely (Colquhoun, 2005).

**RELIGION**

Studying a society’s religious philosophy can be meaningful for understanding aspects of their social arrangements and the reconciliation of that society’s worldview with the spatial contexts around them (Geertz, 1968). These conceptualizations of reality are indexed through the religious metaphors and symbols maintained by the society (Geertz, 1968). By focusing on culturally held religious beliefs and the associated symbols,
anthropologists are able to indirectly assess a community’s understanding of the natural world and their responses to environmental feedback (Milton, 1993). In this section I provide historical context for the study of religious ritual and sacredness in anthropology as well as demonstrate current perspectives on these concepts. I then discuss religious practices among migrant populations and the ways in which sacredness becomes applied to new spatial contexts.

**Sacredness and Ritual**

The concept of sacredness and the practice of ritual have long been entwined and entangled throughout the anthropological literature on religion. Durkheim (1915) defined ‘religion’ as being made up of two constituent parts: beliefs and rites (i.e., rituals). The fundamental difference between the two categories is that the former deals in the realm of thought and the latter in practice. In Durkheim’s (1915) view, the utility of religious beliefs lies in determining something’s status as either sacred or profane. Rites, therefore, were prescribed codes of conduct to be followed by anyone in the presence of a sacred object. Rites were considered to be non-rational actions because there was no clear means-to-ends explanatory model for the behavior (Leach, 1968). The simplicity of Durkheim’s structuralist model has been criticized by Leach (1968), who suggests that representations of the sacred and profane exist on a continuum rather than in mutually exclusive categories and that distinguishing between rational and non-rational action is far too complex and nuanced to be widely applicable.

Radcliffe-Brown (1964) expanded upon previous conceptualizations of ritual practices by introducing the perspective that rituals functioned to increase social cohesion through performative iterations of moral and social values. Under this perspective objects with ritual value (i.e., objects used in ritual performance), such as certain animal bones, plant materials and even food, are also important in demonstrating social values outside of the ritual context. Therefore, ritual objects aid in promoting greater social cohesion through their application in rituals. Differences in opinion arose over why particular objects were granted ritual value (i.e., social value), principally, whether it was based on the perceived dangers inherent to those objects (e.g., plants, game animals, the deceased [Radcliffe-Brown, 1964]); the objects’ ability to secure economic exchange relationships (e.g., material transfers in the
kula ring [Mauss, 1967]); or the objects’ capacity to serve as conceptual structures of social realities that are then interpreted into social practices (e.g., eagle hunting [Lévi-Strauss, 1962]).

With the onset of capitalism, means-to-ends ritual practices and ritual value have become conflated with economic value (i.e., capital) (cf., Marx, 1952). Although intrinsically linked to economic value, Bourdieu’s (1977) concept of ‘symbolic capital’ represents a separate form of value that is symbolic in nature (e.g., prestige and renown) and therefore theoretically separate from economic capital. Conceptualizing the production of symbolic value through ritual practices moves beyond considerations of solely ritual (i.e., economic) value for participants and particular ritual objects to reflect upon the social value of performance in the ritual itself. Going against early structuralist assumptions that there is no clear means-to-ends scenario in ritual performance, Peña (2011) derives ‘devotional capital’ from Bourdieu’s symbolic capital, for which nonmonetary-based exchanges are profitable, and applies it specifically to religious performances (i.e., devotional labors) that “yield regenerative social, economic, cultural and political benefits” (p. 11). For example, participation in the annual pilgrimage to Mexico City for devotees in the Virgin of Guadalupe cult is a type of devotional labor that can yield devotional capital (i.e., symbolic value) in the form of increased respect and appreciation for the participants from their family and friends in the religious community (Peña, 2011). Devotional labor does not, however, need to be something as large as a pilgrimage. Praying, singing and dancing are also forms of devotional labor that produce devotional capital in their own right. Peña’s (2011) description of devotional capital’s effects as being ‘regenerative’ alludes to its multifaceted nature and broad, sometimes unpredictable, applicability. This conceptualization of ritual value does not limit its influence, or utility as an explanatory device, to the phenomena immediately involved in the ritual itself, but is transcendental in its potential to affect any aspect of the ritual participants’ cultural, political and socioeconomic lives.

Sacredness, as the perception of value that motivates ritual action, can also be interpreted through this concept of performance, rather than structure or function alone. Namely, objects and spaces are dynamic in their quality of perceived sacredness through space and time depending on how religious communities interpret their spiritual world into and onto their surrounding environment. Regarding sacred spaces, a pilgrimage route
becomes sacred space throughout the performance of the pilgrimage as a product of the devotional labor expended on that space (Peña, 2011). Here there is a temporal and performative dynamic to the community’s interpretation of that space’s sacredness. Similarly, objects can be considered sacred based on the devotional labor expended to maintain or praise those objects as well as their potential role in the devotional labor performance itself. Performative notions of sacredness are also relevant for conceptualizing temple spaces in Bali. Balinese temples, as landscapes for ritual performances (i.e., devotional labor), are place settings for producing symbolic value (i.e., devotional capital) that becomes associated with the temple space itself and the component parts of the ritual, such as the participants.

**Migrant Religious Practices**

Migration is an interesting phenomenon for a religious community to experience because it requires the reinterpretation and application of long-standing religious meanings and values into novel environmental, sociocultural and political contexts. The creation of planned communities, such as those in the Indonesian Transmigration Program, requires the community members to consciously construct their new identity (Hoey, 2003) and distinguish between essential and nonessential ritual (Knittel, 1974). Essential rituals are those through which participation effectively unifies individuals’ past experiences with their conceptualizations of the present and future, whereas nonessential rituals fail to make that necessary connection between experience and perception (Knittel, 1974). As planned communities come together from varying backgrounds, establishing new essential rituals that are meaningful for the entire community is absolutely necessary.

In a recent ethnography on Garifuna religious practices, Johnson (2007) discusses the effects of migration on religious ritual and symbolism. The Garifuna experienced a forced migration from St. Vincent, a Caribbean island, to coastal Honduras in the late 18th Century after which they had to modify their religious practices and symbolism to incorporate the memory of their past sacred spaces (Johnson, 2007). Sacred space creation is one way migrant communities construct their symbolic and spiritual niches in a new environmental context. Peña (2011) describes how a group of migrants from Mexico attempted to create sacred space by performing ritual prayer ceremonies at a shrine commemorating an
apparition of the Virgin of Guadalupe on a tree in a Chicago neighborhood. This small community of devotees eventually failed to develop sustained essential ritual at their sidewalk shrine but in the process of attempting to do so they created a series of meaningful religious ‘moments’ in which they related social, economic and political aspects of migrant life in America to one another through their common religious ground (Peña 2011). Before a group migrates their religious practices make up an unmarked part of everyday life because they are embedded in the social, political, and economic environment of their homeland. After relocating to an area devoid of these symbolic contexts, religious practices become more of a concerted effort that must now be “planned for, allotted space, deliberated, and settled on” (Johnson, 2007, p. 43). It becomes a conscious decision which rituals to maintain (i.e. are essential rituals), which can be forgotten (i.e., would be nonessential rituals if maintained), and how these rituals will be practiced in different spatial contexts (Johnson, 2007). A new symbolic niche must be constructed for the migrants’ religion based on memories of the past space and the relevant constituents of the new, which in other words is the practical application of essential ritual among migrant communities. The distinction between essential and nonessential ritual is relevant to my research on the practice of Balinese Hinduism in transmigrant communities due to the highly integrated role of ritual in everyday Balinese life (Geertz, 1980; Howe, 2005) and their transition to an environment without the same religious, social, political and economic associations.
CHAPTER 3

RESEARCH DESIGN

METHODOLOGY

The methodology of this research was primarily informed by ethnoprimatology. Ethnoprimatology promotes an inherently integrative methodological approach due to its prioritization of ecological, behavioral and ethnographic data collection (Fuentes, 2010). As the single researcher for this thesis I focused on collecting cultural (i.e., ethnographic), rather than ecological, data. Local ecology, however, was an important interview component and therefore emic ecological data collection was a substantial part of my research protocol. To create a robust dataset I employed a mixed methods approach known as the concurrent embedded strategy (Creswell, 2009) in which both qualitative and quantitative data were collected simultaneously, with the latter being utilized specifically to enrich and contextualize aspects of the former. For example, this thesis’ ethnographic methods elicited rich qualitative perspectives which I have supplemented with answers to ‘yes or no’ questions that were quantitatively analyzed across demographic lines. Mixed methodologies, such as those applied in this thesis, can be a powerful tool for deductively analyzing a guiding theoretical framework with inductively derived themes from qualitative data (Creswell, 2009).

STUDY SITE

This research was conducted in the Luwu Timur district of South Sulawesi, Indonesia (Figure 5). The major ethnic groups known to inhabit this district are the Toraja Kaili, Pamona, Sa’adang, and the coastal Bugis – Makassar Bugis (Davis, 1976; Whitten 1987). During the transmigration families from Bali were relocated to the Kalaena transmigrant settlement in what was then the greater Luwu district (Roth, 2009). Transmigrants from Java are also located within this transmigrant region and villages typically comprise either Balinese or Javanese transmigrants with additional villages housing a mixed population of transmigrants and local residents (Roth, 2009). For this project interviews were conducted
among Balinese transmigrants across three villages with varying population sizes and ethnic diversity. Below I describe the demographics for each of these three villages in detail.

**Alam Buana**

*Alam Buana* has a population of 586 and is the smallest of the three villages I visited. It is also the least religiously diverse. The vast majority of residents (556) are Hindu while only 25 are Islamic and five are registered Christians (Table 2). Occupations in *Alam Buana* are equally split between farmers and residents listed as ‘other’ (Table 3). Included in the catch-all category of ‘other’ are occupations including but not limited to seasonal workers,
Table 2. Village Size and Religious Diversity in Population

<table>
<thead>
<tr>
<th>Village</th>
<th>Size (Km²)</th>
<th>Hindu</th>
<th>Muslim</th>
<th>Protestant</th>
<th>Catholic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alam Buana</td>
<td>3</td>
<td>556</td>
<td>25</td>
<td>5</td>
<td>0</td>
<td>586</td>
</tr>
<tr>
<td>Balirejo</td>
<td>8.6</td>
<td>2555</td>
<td>515</td>
<td>0</td>
<td>0</td>
<td>3070</td>
</tr>
<tr>
<td>Cendana Hitam</td>
<td>12.25</td>
<td>612</td>
<td>198</td>
<td>306</td>
<td>10</td>
<td>1126</td>
</tr>
</tbody>
</table>

*Numbers represent individuals unless otherwise specified

Table 3. Occupational Diversity in Sample by Numbers of People

<table>
<thead>
<tr>
<th>Village</th>
<th>Farmer</th>
<th>Merchant</th>
<th>Breeder</th>
<th>Civil Servant</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alam Buana</td>
<td>175</td>
<td>8</td>
<td>0</td>
<td>9</td>
<td>175</td>
<td>367</td>
</tr>
<tr>
<td>Balirejo</td>
<td>726</td>
<td>22</td>
<td>183</td>
<td>23</td>
<td>28</td>
<td>982</td>
</tr>
<tr>
<td>Cendana Hitam</td>
<td>601</td>
<td>22</td>
<td>110</td>
<td>13</td>
<td>33</td>
<td>779</td>
</tr>
</tbody>
</table>

Balirejo

*Balirejo* is the largest of the villages with a population of 3,070 individuals. The religious landscape of *Balirejo* is split between two faiths (Table 2). Hindu transmigrants from Bali number 2,555 and the other 515 people are Muslims who came in the transmigration from Java. *Balirejo* is primarily a farming community with 726 farmers (74%) comprising the majority of the workforce (Table 3). Livestock breeders comprise 183 members (19%) of the population. The last 7% of workers are divided up between civil servants, merchants and ‘other’. As well as having the largest population in my study, *Balirejo* also has the highest number of public temples with 14. A total of four village temples were founded in 1978 when the transmigrants first arrived.

Cendana Hitam

The population of *Cendana Hitam* is 1,126. Of the three villages in my study *Cendana Hitam* is the most religiously diverse (Table 2). Hindus make up the majority with 612 individuals. Next are Protestant Christians with 306 people, followed by Muslims and
Catholics with 198 and 10, respectively. *Cendana Hitam* is also comprised primarily of farmers who make up a combined 601 members (77%) of the populations (Table 3). There are 110 residents (14%) who breed livestock, while the final 9% are split between civil servants, merchants and ‘other’. There are five public temples in *Cendana Hitam* (Table 5, p. 44). The first temples were built in 1974 on arrival and include the *Pura Desa* (village temple) and *Pura Marjupati* (cemetery temple).

**Sampling and Data Collection**

This research was conducted over a span of 13 months from August 2010 to September 2011. The first three months were devoted to learning the Indonesian language through an intensive language course in Yogyakarta, Indonesia. The following 10 months were devoted to the research project, with interviews being conducted from December 2010 to April 2011. The primary method of data collection was face to face interviews. Interviews adhered to IRB standards of informed consent and all respondents were made aware that their answers would remain anonymous. A total of 100 interviews were administered by me in the national language of Indonesia, *Bahasa Indonesia*. Interview questions were translated from English to *Bahasa Indonesia* with the help of Ibu Ningsih, the founder and head of *Puri Bahasa Indonesia*, where I studied the Indonesian language. The translated questions were then checked by my Indonesian research sponsor and professor of forestry Pak Oka, who is also a Balinese Hindu, to verify their appropriateness for the Balinese transmigrant respondents. These structured interviews contained 31 questions which were broken down into four modular sections based on style of questioning and the topics being addressed (Bernard, 1994) (see Appendix A). Each module is organized to create a particular context in which the respondent answers questions regarding their perceptions of the Sulawesi macaques. The first module consists of demographic questions to assess the respondent’s age, sex, migrant status and other pieces of general information. These questions were worded clearly to elicit concise answers. The second module contains questions relating to perceptions of local Sulawesi macaques’ behavior and ecology. This section also touches upon some of the basic interactions respondents may have with the monkeys. In the third module I address perceptions of the transmigrants’ new surroundings including questions regarding local taboos, government restrictions, the practice of
Hinduism, and macaque sacredness. The fourth module juxtaposes perceptions of the long-tailed macaques in Bali with the macaques in Sulawesi.

Due to the scattered layout of the population, probability sampling was not feasible. Therefore, I employed purposive sampling to attain the desired sample characteristics (Bernard, 1994). The sample was separated internally to be village specific and each village-level sample was stratified to include respondents who migrated to Sulawesi as adults and those who migrated as children or were born in the transmigrant communities. Interviews for this sample were obtained through three general means: (1) Non-probability sampling where I went door to door looking for interviews and approached houses at random; (2) Snowball sampling in which the village head directed me to particular members of the community whom he believed to be knowledgeable in the subject matter; (3) Convenience sampling where I interviewed individuals who were present at community events or public gathering places such as local shops or village offices. All respondents are referred to by their respondent identification, which was constructed based on the individual’s sub-district, village, and the order in which they were interviewed (see Appendix B).

The distribution of respondent demographics within the sample is depicted in Table 4. For the purposes of sample stratification the terms ‘Older’ and ‘Younger’ refer to the respective migratory generation in which each respondent belongs. For example, the ‘Older’ category represents individuals who migrated to Sulawesi when they were 18 years or older, thus comprising the older generation. The ‘Younger’ category includes all respondents of the younger generation who were below the age of 18 at the time of migration or born in the transmigrants communities. All respondents were adults aged 18 or over at the time of the interview.

Table 4. Respondent Age at Migration

<table>
<thead>
<tr>
<th>Age Category</th>
<th>Alam Buana</th>
<th>Balirejo</th>
<th>Cendana Hitam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Older</td>
<td>11</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>Younger</td>
<td>14</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>40</td>
<td>35</td>
</tr>
</tbody>
</table>
DATA ANALYSIS

Qualitative data were analyzed using descriptive coding. In descriptive coding the researcher observes the collected data to identify themes based on the responses’ internal relevance (Bernard & Ryan, 1998). After establishing these themes I then describe more specifically the relationships between them and their significance to the study’s goals and research questions. The identification of these broad themes through which all answers are represented after data collection rather than before is what constitutes ‘open coding’. This style emphasizes using the emic perspective when organizing data into meaningful components for analysis.

Quantitative analyses were performed to test for differences in opinions of macaque sacredness specifically between generations of transmigrants. A Chi-squared test was run to determine if the number of people in the older or younger generation who considered local macaques to be sacred or not was significantly different from what would be expected based on random variation in the sample. Another Chi-squared test sought to determine if respondents who said the macaques were not sacred were more likely to cite a particular reason for their lack of sacredness than would be otherwise expected due to chance.
CHAPTER 4

RESULTS

In this chapter I present data that are relevant to understanding the issues raised by my research questions. The primary research question guiding this thesis is whether Balinese transmigrants in South Sulawesi consider local macaques to be sacred. This question is addressed in the next section, which also establishes the transmigrants’ general opinions of local macaques. The reasons many respondents gave when explaining the overall lack of macaque sacredness in South Sulawesi are detailed in the following section. Next, I present the transmigrants’ perceptions of macaques in Bali to form a basis for comparison with their perceptions of the local Sulawesi macaques. The final section addresses whether there were perceived changes in the practice of Balinese Hinduism after settling in the transmigrant communities.

KNOWLEDGE AND PERCEPTIONS OF LOCAL MACAQUES

The following subsections present data on the Balinese transmigrants’ opinions of local booted macaques in South Sulawesi. The first subsection includes responses that describe general knowledge and opinions of the macaques. The next subsection offers results that pertain specifically to perceptions of macaque sacredness in South Sulawesi.

General Opinions

In the very first interview I conducted I was given a clear description of how the Balinese transmigrants classified the local macaque species. When I asked “What type of monkey lives in the forest near here?” the respondent concisely answered, “Beruk” (translation: macaque with a short tail). They don’t have a tail; black” (TTalamb01, personal communication, December 11, 2010). Many respondents, even if they didn’t provide the name beruk, would describe the local monkeys as having black hair and no tail. A resident

---

1 In contrast, the Balinese refer to the long-tailed macaques in Bali as “bojog”
of Cendana Hitam told me that the beruk have short tails because they were once bitten off by a dog. It was clear that the morphological features of these macaques were integral to their identity in the minds of the transmigrants. For some, the name was also important. I was occasionally corrected in my use of the Indonesian word monyet (monkey) when asking about the local macaques. The individual would reply along the lines of, “There are no monkeys. (Only) beruk” (TTalamb07, personal communication, December 16, 2010).

Morphology was also key to this classificatory distinction. As one respondent explained, in the local forests “there are no monkeys; monkeys have long tails” (TTcendh29, personal communication, February 9, 2011). When asked about the local macaques’ origin, several transmigrants indicated that the beruk is “native here; Sulawesi” (TTcendh16, personal communication, January 31, 2011) or referred to them as “Sulawesi animals” (TTcendh30, personal communication, February 10, 2011). Another respondent specifically mentioned the uniqueness of local monkeys saying that they were “special to Sulawesi; are different from other monkeys” (ANKbali04, personal communication, March 18, 2011), presumably due to their dark pelage and short tail morphology.

In many interviews I was told that the beruk population is decreasing after I asked how many monkeys there were in the forest. One person told me, “In the past there were a lot [of monkeys] but now they have been hunted and moved away. The number can’t be counted” (ANKbali32, personal communication, April 2, 2011). Some respondents did estimate the current population size of local macaques, but those numbers ranged from “about eight or more” (ANKbali21, personal communication, March 28, 2011) to “more or less, thousands” (TTcendh30, February 10, 2011). In several interviews I was told about the way local macaques live in groups. One respondent in particular talked about how he heard “from people who like to hunt that one group has 50 monkeys and is run by one of the males” (ANKbali39, personal communication, April 5, 2011). Some people would describe group behaviors as well. From one individual I heard that the monkeys “enter the garden in groups from five to 50 monkeys. When it’s time to go in they use one first to see if it’s safe and the rest follow” (TTcendh04, personal communication, January 25, 2011).

According to the respondents the local macaques primarily eat fruit. I was told that the macaques could eat a wide variety of fruits, ranging from forest fruits like rambutan and jackfruit to typical crops such as mangos, bananas, papaya and cacao. Plant items mentioned
that were not fruits included tubers (i.e., cassava, taro), corn and leaves. A few respondents told me that the macaques would eat insects, specifically that “they also eat caterpillars, so that’s good for the big trees” (TTalamb06, personal communication, December 16, 2010). I was also informed that the monkeys liked to eat chicken eggs and would occasionally steal them from homes near the forest edge. Some respondents indicated that the local macaques would also eat rice if it’s brought out into the forest or “bread, if it’s thrown away” (TTcendh21, personal communication, February 1, 2011). The eclectic diet of local macaques was summed up by one respondent who simply said, “What can be eaten by monkeys can be eaten by humans” (TTalamb23, personal communication, December 27, 2010).

Based on interview responses there are three main uses for local macaques by the Balinese transmigrants: (1) to keep as pets; (2) as hunting game; and (3) for medicine. During my time living in the different transmigrant communities I came across five pet macaques, all of them booted macaques from the local forest. Regarding his opinion of local monkeys, one pet owner told me, “Personally, I love them which is why I keep one as a pet” (ANKbali05, personal communication, March 20, 2011). The primary motivation among the transmigrants for keeping pet monkeys was likely in line with this respondent’s perspective in that the monkeys are appreciated for being aesthetically pleasing and humorous, which is similar to the motivation for keeping any kind of pet. I was also told that pet macaques were beneficial because “the ones that are already taken care of can search [humans] for fleas and ticks” (TTcendh27, personal communication, February 6, 2011) (Figure 6). In a conversation with another pet owner I was informed that he was not planning on ever eating or getting rid of his pet because it looked too much like a human and that he had actually turned down an offer of 500,000 rupiah (about $50) to purchase the monkey.

Hunting macaques seemed to be a relatively common practice for the Balinese in the transmigrant communities. Sometimes when answering questions about the local monkeys, respondents would refer to information that they had heard from hunters or allude to the fact that hunting occurs in general. When talking with hunters themselves I would often hear stories about how the macaques would fight back and occasionally kill one of the hunters’ dogs. One respondent even showed me a long scar on the leg of his dog that was given to him by a monkey. Regarding monkey meat, I was told, “Men like to eat the meat because it
has a hot flavor” (TTalamb08, personal communication, December 16, 2010). If the topic of monkey meat came up I was certain to be told about it being ‘hot’, which carries with it the connotation that monkey meat cannot be eaten by just anyone, but only by those people who can tolerate the flavor. Another reason macaque hunting took place may have been for medicinal purposes. A priest from the village of Alam Buana, as well as several other people, told me that the monkeys’ livers could be used to treat asthma.

Hunting local macaques was also a byproduct of negative opinions regarding them. These negative opinions derive from the perceived destructiveness of macaques to local crops. When asked for his opinion of local macaques, one respondent said bluntly, “There is no relationship [between us and them] because they destroy my crops” (ANKbali09, personal
communication, March 22, 2011). This response indicates how important macaque behaviors are for shaping people’s perceptions of the overall relationship between them. Others were more spirited in their negative opinions of local macaques, telling me that “in general they cause financial losses. They disturb and I haven’t seen any benefit from monkeys” (TTcendh04, personal communication, January 25, 2011) or that the macaques “need to be hunted because they destroy crops” (ANKbali13, personal communication, March 25, 2011). One individual even characterized the macaques in Sulawesi as “enemies; because I have crops that are often disturbed, sometimes until they’re gone” (TTcendh11, personal communication, January 30, 2011). Several others acknowledged the issue of crop raiding but maintained that the macaques should be preserved. For example, one respondent expressed is opinion of local macaques by saying, “If you want to have a garden they become a nuisance, but they are important to be preserved because they are a part of nature. So our children and grandchildren can know monkeys” (TTcendh22, personal communication, February 4, 2011).

It was common for me to hear that the macaques ‘chose’ to keep the relationship with the transmigrants distant. I was told, “We cannot communicate with the monkeys because they are afraid and run. They don’t want to communicate” (ANKbali07, personal communication, March 22, 2011). During an interview with another respondent it came out that “[the local monkeys] don’t want to be tame, associate with humans. They distance themselves. Not like in Bali” (TTcendh28, personal communication, February 6, 2011). The implication here is that macaques have an active role in determining the status of the relationship, as perceived by the transmigrants. Some respondents, however, were more self-reflexive and noted that human behaviors may be influential in determining the state of the overall relationship between Balinese transmigrants and macaques in Sulawesi. Regarding one person’s general opinion of the local macaques he said they are “a little wild; not intimate with humans.” And then he added “we did not adapt with them” (TTalamb21, personal communication, December 26, 2010). Others even noted the potential reason for the Sulawesi macaques’ perceived standoffishness, explaining “the monkeys are afraid because they are often hunted” (TTalamb11, personal communication, December 17, 2010) and “here monkeys moved farther away after residents hunted them” (ANKbali25, personal communication, March 30, 2011). This second response brings up the relevance of spatial
context’s regarding the relationship between humans and local macaques. Another respondent also detailed the causal effect between hunting and remote macaque populations, adding “the community has entered the forest looking for wood, hunting; so the monkeys have decreased and are almost never seen” (ANKbali19, personal communication, March 28, 2011).

There were some respondents who had mostly positive opinions about the local macaques. One respondent told me that he even “feels bad for them because they are a smart animal, almost the same as humans but the poor things have so much hair” (TTcendh35, personal communication, March 9, 2011). Another person didn’t seem to have the same aversion to body hair because she told me that the monkeys were “beautiful; cuter [in Sulawesi]” (ANKbali33, personal communication, April 2, 2011). In one interview the respondent told me that he “likes seeing them teasing each other. They’re clever at playing around” (TTcendh25, personal communication, February 5, 2011).

**Macaque Sacredness**

When asked whether there were any monkeys in Sulawesi that the Balinese transmigrants considered sacred their responses fell into one of three categories: ‘yes’; ‘no’; and ‘not yet’ (Figure 7). The majority of respondents (64%) said ‘no’, that they did not consider macaques in Sulawesi to be sacred. In contrast, 13% of respondents indicated that macaque sacredness does apply to Sulawesi macaques. The remaining 23% of individuals answered “belum”, which translates literally to ‘not yet’.

Of the 13 respondents who considered the Sulawesi macaques to be sacred there were seven who gave religious reasons for this belief. For example, one person answered that local macaques were sacred “because monkeys, from the holy texts, are considered sacred” (ANKbali20, personal communication, March 28, 2011). Another individual was more specific, saying “We have a monkey deity: Hanuman, the white monkey. So from that all monkeys must be considered sacred” (TTalamb12, personal communication, December 19, 2010). Five respondents indicated that sacredness was not ubiquitous among local macaques.

---

2 ‘Not yet’ is a culturally appropriate response to ‘yes or no’ questions in Indonesia, which may account for its usage in this study. This issue will be more fully addressed in the next chapter.
but rather that the macaques were only conditionally sacred. Some individuals suggested that particular macaques were sacred based on aspects of their morphology, such as being large or having white hair instead of black. Another respondent posited that it was simply up to the individual whether they considered the macaques to be sacred or not, and that he did. Two respondents indicated that macaque sacredness is based on morphological similarities between macaques and humans. One of these individuals also spoke to the continuity between these species in general, saying “Actually [monkeys are sacred] because from nature humans are from the same species as monkeys; the forms almost have a resemblance, the hands and upper bodies” (ANKbali23, personal communication, March 30, 2011). A single transmigrant implied that macaque sacredness was the natural order of things, explaining that the Sulawesi macaques were considered sacred as an animal of nature.

The multi-village dimension of my sample allows me to distinguish whether there are different perspectives on macaque sacredness among different transmigrant communities. For instance, one village may be more open to the idea of macaque sacredness in local macaques than the other villages. ‘Yes’, ‘no’ and ‘not yet’ responses to the question of macaque sacredness in South Sulawesi, separated by village, are shown in Figure 8. Overall, there were no substantive differences in perceptions of macaque sacredness between villages. Therefore, results are not stratified by village for the remainder of this analysis.
‘Yes’, ‘no’ and ‘not yet’ responses by generation to the question of macaque sacredness in Sulawesi are shown in Figure 9. There is no significant difference in the distribution of responses between age groups ($\chi^2 = 0.18; df = 2; p = .914$). This result indicates that the respondents’ generation is not an important factor regarding perceptions of macaque sacredness.

**FACTORS EXPLAINING NON-SACREDNESS OF LOCAL MACAQUES**

The majority of respondents (87%) indicated that there were presently no sacred macaques near the transmigrant communities in South Sulawesi and when asked to explain why not they gave a plethora of answers. These responses have been organized into the thematic subsections below which detail the relevance of each trait to the lack of macaque sacredness.

**Macaque Behavior**

The characterization and perceptions of nonhuman primate behaviors can be used as a key to understanding residents overall opinions regarding local nonhuman primate
Figure 9. Perceptions of macaque sacredness between older \( (n = 41) \) and younger \( (n = 59) \) generations. Data labels denote percentage of respondents who answered ‘Yes’, ‘No’, or ‘Not yet’.

populations. Throughout my interviews respondents would describe macaque behaviors that could be separated into two distinct categories: destructive behaviors and unhabituated behaviors. Destructive behaviors are those in which the macaques are described as damaging plants, crops and farmland; being mischievous and “naughty”; or those in which farmers are said to incur losses at the hands of macaques. To many Balinese transmigrants this type of destructive behavior prevents the development of perceptions of macaque sacredness in Sulawesi because it is damaging to their livelihoods as farmers. One respondent plainly stated that macaques in Sulawesi are not considered sacred “because they destroy here, primarily cacao; and there are many people who plant cacao” (ANKbali14, personal communication, March 28, 2011). Additionally, when questioned as to why macaques in Sulawesi were not considered sacred one respondent replied “their behavior is different, destructive. In Bali they aren’t naughty.” (TTcendh24, personal communication, February 4, 2011). Another respondent made a similar assertion, explaining that the local Sulawesi macaques are not sacred “because here they destroy crops; not in Bali” (ANKbali10, personal communication, March 22, 2011).

Behavioral characteristics associated with unhabituated nonhuman primate populations also seemed to be an important factor for the Balinese transmigrants when
explaining why the macaques in Sulawesi were not sacred. Unhabituated behaviors describe a complex of characteristics such as: being untamed or “wild”; not ‘wanting’ or being able to adapt with humans; and running from or being afraid of humans in general. I was told during an interview that macaques in Sulawesi were not sacred “because here monkeys are wild. There aren’t any that are tame and they always run if they meet humans” (TTcendh03, personal communication, January 24, 2011). One respondent, who also happened to be a village priest, posed a question to me regarding perceptions of sacredness for local ‘wild’ macaques, asking “Here they are scared, how can we be attached to them?” (TTalamb07, personal communication, December 16, 2010). This type of perspective, which emphasizes the necessity of humans and macaques co-occurring peacefully, indicates that habituation is to some degree a prerequisite for macaque sacredness. Another respondent even suggested that “if tame, [the macaques here] could probably be considered sacred” (ANKbali31, personal communication, April 1, 2011).

**General Macaque Traits**

Macaque traits not directly related to behavior were also mentioned as reasons for the lack of macaque sacredness in South Sulawesi. According to my respondents, these traits were considered characteristic of (i.e., essential to) the local macaque species and thus distinguishing them from the macaques in Bali. For example, some respondents indicated that macaque morphology is intrinsically linked to macaque sacredness in Bali. Occasionally, the black hair and short tail of booted macaques in South Sulawesi led transmigrants to consider it unsacred, as demonstrated by this respondent who said local macaques were not sacred because “here the monkeys’ hair and body shape is different” (TTcendh21, personal communication, February 1, 2011). Another individual was even more specific regarding the preferred morphological features for macaque sacredness saying, “In Bali [the monkeys] are different because they have a white color and long tail. Probably if there were those monkeys here [they could be considered sacred]” (ANKbali02, personal communication, March 18, 2011). One respondent explained the meaning behind these morphological features, indicating that “the ones in Bali are sacred because they are descendants of Hanuman; the ones here don’t have a tail” (TTcendh22, personal communication, February 4, 2011). In this case, the tail is seen as an indication of sacred
ancestry for the macaques in Bali. Therefore, the Sulawesi macaques, which have characteristically short tails, are regarded by some of my respondents as having different ancestry from the sacred long-tailed macaques in Bali.

Small population size among groups of local macaques in South Sulawesi also contributed to their lack of sacredness. One individual suggested that local macaques were not sacred “because their population is small” (TTalamb13, personal communication, December 19, 2010). Similarly, other respondents said that “there aren’t as many monkeys here (as in Bali)” (TTalamb16, personal communication, December 23, 2010) or that, “here (the monkeys) are rare” (ANKbali16, personal communication, March 25, 2011) when explaining the lack of macaque sacredness in the transmigrant communities. Some respondents also characterized local booted macaques as being unintelligent compared to the long-tailed macaques in Bali, which further contributed to their lack of sacredness.

Macaque Living Space

Another influential factor in understanding perceptions of macaque sacredness among Balinese transmigrants is the spatial location of the macaques. Respondents noted the lack of sacred spaces in which the Sulawesi macaques are located as well as their inhabitance of forest areas spread out far from the village. Specific information regarding each village’s temples, including the degree to which each temple is visited by local macaques (Table 5), was obtained in special one-on-one interviews with the village head (or the village administrator, in Balirejo) (see Appendix C). Despite the large number of temples in Balirejo, and the presence of a few of them near to the forest edge, no monkeys have ever been seen in this village’s sacred temple grounds. In Alam Buana only the Pura Puncak (summit temple) was said to be visited by local monkeys and this temple was located directly on the forest edge. Similarly, in Cendana Hitam the two temples nearest to the forest edge, the Pura Marjupati and Pura Puncak, were the only temples reportedly visited by monkeys. These monkeys are said to come into the temples and eat leftover offerings after ceremonies but then move out of the temple areas on their own, without being chased out by the transmigrants.

Many of the respondents listed this difference in living space as a key factor for the macaques’ lack of sacredness in Sulawesi. In one interview I was told that macaques in
Table 5. Village Temple Composition

<table>
<thead>
<tr>
<th>Village Name</th>
<th>Temple Name</th>
<th>Year Built</th>
<th>Distance to Forest(^a) (m)</th>
<th>Macaques(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alam Buana</td>
<td>Pura Dalem</td>
<td>1978</td>
<td>700</td>
<td>Never</td>
</tr>
<tr>
<td>Alam Buana</td>
<td>Pura Desa</td>
<td>1980</td>
<td>300</td>
<td>Never</td>
</tr>
<tr>
<td>Alam Buana</td>
<td>Pura Pasek Gel-Gel</td>
<td>1992</td>
<td>5</td>
<td>Never</td>
</tr>
<tr>
<td>Alam Buana</td>
<td>Pura Puncak</td>
<td>1982</td>
<td>0</td>
<td>Often</td>
</tr>
<tr>
<td>Balirejo</td>
<td>Dalam Dasar Gel-Gel</td>
<td>1980</td>
<td>800</td>
<td>Never</td>
</tr>
<tr>
<td>Balirejo</td>
<td>Pura Dalem</td>
<td>1978</td>
<td>10</td>
<td>Never</td>
</tr>
<tr>
<td>Balirejo</td>
<td>Pura Desa</td>
<td>1978</td>
<td>950</td>
<td>Never</td>
</tr>
<tr>
<td>Balirejo</td>
<td>Pura Dukuh Suladri</td>
<td>1980</td>
<td>1100</td>
<td>Never</td>
</tr>
<tr>
<td>Balirejo</td>
<td>Pura Panti Kebon-Tubuh</td>
<td>1979</td>
<td>700</td>
<td>Never</td>
</tr>
<tr>
<td>Balirejo</td>
<td>Pura Pasek Gel-Gel</td>
<td>1980</td>
<td>700</td>
<td>Never</td>
</tr>
<tr>
<td>Balirejo</td>
<td>Pura Pasek-Timbul</td>
<td>1990</td>
<td>1200</td>
<td>Never</td>
</tr>
<tr>
<td>Balirejo</td>
<td>Pura Penataran-Agung</td>
<td>1978</td>
<td>1200</td>
<td>Never</td>
</tr>
<tr>
<td>Balirejo</td>
<td>Pura Penataran-Pande</td>
<td>1980</td>
<td>1100</td>
<td>Never</td>
</tr>
<tr>
<td>Balirejo</td>
<td>Pura Penataran-Tirte Harum</td>
<td>1980</td>
<td>900</td>
<td>Never</td>
</tr>
<tr>
<td>Balirejo</td>
<td>Pura Pulesari</td>
<td>1980</td>
<td>11</td>
<td>Never</td>
</tr>
<tr>
<td>Balirejo</td>
<td>Pura Puncak</td>
<td>1990</td>
<td>1</td>
<td>Never</td>
</tr>
<tr>
<td>Balirejo</td>
<td>Pura Puseh</td>
<td>1978</td>
<td>900</td>
<td>Never</td>
</tr>
<tr>
<td>Balirejo</td>
<td>Pura Tangkas-Curi Agung</td>
<td>1980</td>
<td>1300</td>
<td>Never</td>
</tr>
<tr>
<td>Cendana Hitam</td>
<td>Pura Bakung</td>
<td>1981</td>
<td>1000</td>
<td>Never</td>
</tr>
<tr>
<td>Cendana Hitam</td>
<td>Pura Dalem Penataran</td>
<td>1991</td>
<td>300</td>
<td>Never</td>
</tr>
<tr>
<td>Cendana Hitam</td>
<td>Pura Desa</td>
<td>1974</td>
<td>500</td>
<td>Never</td>
</tr>
<tr>
<td>Cendana Hitam</td>
<td>Pura Marjupati</td>
<td>1974</td>
<td>0</td>
<td>Often</td>
</tr>
<tr>
<td>Cendana Hitam</td>
<td>Pura Puncak</td>
<td>1980</td>
<td>0</td>
<td>Often</td>
</tr>
</tbody>
</table>

\(^a\)Distance (in meters) estimated by respondent.
\(^b\)Responses indicate how often the macaques enter that temple space.

Sulawesi were not sacred because “the space factor is not there yet. They are not yet properly positioned” (ANKbali11, personal communication, March 23, 2011). The phrase ‘properly positioned’ may have a few connotations. One connotation being that sacred spaces are the ‘proper’ spaces, but another potential meaning is that proximity to humans in general is a more ‘proper’ position. Later in that same interview this respondent contextualized the issue of spatial proximity and its influence on Balinese transmigrants’ behaviors towards the booted macaques by explaining that “here the forest is too vast and far away so there are less opportunities to get close to monkeys” (ANKbali11, personal communication, March 23, 2011). Therefore, this individual is suggesting that one of the keys for understanding the lack of sacredness as well as lack of interactions with macaques in Sulawesi is that they live too far away in too wide a territory. This perspective was
supported by several other respondents, one of which told me that “here [monkeys] are not sacred because the population is small and their location is spread out” (TTalamb13, personal communication, December 19, 2010).

Other respondents focused more specifically on the fact that macaques in Sulawesi do not live in sacred spaces. During one interview I was instructed as to the importance of macaques actually inhabiting sacred spaces because, according to this respondent, macaques in Sulawesi are not sacred “because they do not stay at temples like in Bali” (TTalamb19, personal communication, December 26, 2010). Another individual illustrated this point by saying to me that “the monkeys in Bali already group together at the temples; here they don’t want to be together with humans” (TTalamb16, personal communication, December 23, 2010). In a later interview I learned more specifically how presence in sacred space contributed to macaque sacredness. This respondent informed me that “The monkeys [in Sulawesi], their lives are more wild in the forest and they are not like the monkeys in Bali that live in sacred spaces. But monkeys in Bali are not sanctified, but are considered supernatural because they live in sacred spaces” (ANKbali19, personal communication, March 28, 2011). Excerpts from other interviews help contextualize the meaning of ‘supernatural’ used above. As one person explained, the macaques in Bali “have guardian spirits to protect the place, its surroundings and forest from people that are irresponsible” (ANKbali17, personal communication, March 26, 2011). Similarly, another respondent said that:

In Hinduism there are several places considered sacred and there are monkeys that have spirits, so they are considered sacred…. If there are supernaturally powerful (keramat) places, often when we enter our hair stands up, so that if there are monkeys we are not brave enough to disturb the monkeys. There are no places like that here (in Sulawesi). (ANKbali07, personal communication, March 22, 2011)

**Historical Context**

Historical context is another factor of particular relevance to this study. The absence of a long history of Balinese transmigrants in South Sulawesi was mentioned during some of my interviews. When asking why macaques in Sulawesi were not sacred, one individual told me it was because “here we are newcomers, not like Bali. [The monkeys] are still wild here” (TTalamb23, personal communication, December 27, 2010). This statement links the factors
of historical context and habituation, implying the latter is a manifestation of the former. Other respondents spoke more specifically about the lack of historical precedence for macaque sacredness in Sulawesi. During one interview I was told that the macaques in Sulawesi were not sacred “because native residents do not have [monkeys] that are sanctified so we were newcomers and followed along with [the monkeys] not being sanctified” (ANKbali36, personal communication, April 3, 2011). This response seems to situate macaque sacredness as not so much a Hindu tradition to be brought over, but as local tradition that is either present or not. One respondent alluded to the importance of a long term historical relationship between humans and macaques in Bali by saying, “the monkeys were already there from our birth and we continue to honor them” (TTalamb10, personal communication, December 17, 2010). Another individual speculated as to the origin of macaque sacredness in Bali, explaining to me that the macaques were “things to be cared for in Bali and have grown from one and one” (TTcendh32, personal communication, February 14, 2011). Considering the large population of macaques currently in Bali this statement implies a substantial history between macaques and humans.

The lack of historical context between Balinese transmigrants and macaques in Sulawesi can also be signified by the lack of ‘monkey stories’ that my respondents shared with me. When asked whether they knew any stories about monkeys in this area the vast majority replied that they did not. I was only rarely told stories with mystical facets about the local macaques that could be regarded as folklore or mythology. One such story involves the elusive, and potentially sacred, white monkeys: “In the past there were ones with white hair, one group. The white ones were small. They weren’t hunted but are not seen anymore” (ANKbali05, personal communication, March 20, 2011). Mostly when a respondent did have a story to tell, their story was often regarding routine experiences they had had or heard about. Below are a couple stories that were told to me by some of my respondents which describe encounters between people and monkeys:

When an old man went into the forest to hunt pigs he found a male monkey and brought it home. The monkey was tied up and became a pet monkey. He made a small house for the monkey. The monkey could laugh and find fleas, ticks, etc. The monkey was very unique and funny. (TTcendh09, January 29, 2011)

In the past there was a person who captured, took care of a monkey at his home. After it was taken care of and tied up with a chain for a long time it still stayed
unfriendly, but there was a little change; it wasn’t as scared as before. One day it got free and it approached a baby. The baby was picked up and the monkey was seen by the family. It became startled and let go of the baby, dropped it. Finally the person who owned the monkey was mad and captured the monkey again. After being captured the monkey was killed. The reason was that if it got free again something even more dangerous could happen. (ANKbali19, personal communication, March 28, 2011)

Other respondents told stories about the mischievousness or ferociousness of the monkeys or would recount hunting tales like the following: “I have hunted before, brought dogs. The monkeys are very vicious. A monkey climbed an aren palm. I set the tree on fire and then got the monkey” (ANKbali29, personal communication, April 1, 2011). These stories, in which relatively recent encounters with macaques are retold, suggest that there is no extensive historical relationship between Balinese transmigrants and macaques in Sulawesi from which more widespread folkloric tales could be drawn.

The ‘Not Yet’ Perspective

Here, I present results concerning the potential significance of ‘not yet’ responses, as opposed to ‘no’ responses, regarding the question of local macaque sacredness. ‘No’ and ‘not yet’ responses fell into four main categories regarding the reasons given for local macaque non-sacredness, as described above3. Respondents were most likely to indicate behavioral characteristics as the reason for the lack of macaque sacredness in South Sulawesi, regardless of whether they had replied ‘no’ or ‘not yet’ to the question of local macaque sacredness in general (Figure 10). Nearly 50% of the ‘no’ responses pointed to macaque behavior while just 40% of the ‘not yet’ responses did. This 40% of ‘not yet’ responses was only a slight majority within that stratification because spatial context reasons were given in 33% of the responses. The ‘no’ category had a more pronounced drop off between the first and second most cited reasons for lack of macaque sacredness as only 21% of the responses indicated the importance of spatial context, which totals less than half than the number received for behavioral characteristics. Individuals who responded ‘no’ were

---

3 The ‘human perspective’ category is the only one that has been modified from the descriptive subsections above. It is based on responses described in the ‘historical context’ subsection, but has been expanded to include other responses that situate humans as the subject, such as: hunting macaques in South Sulawesi and the presence of other non-Hindu residents in the area.
actually significantly more likely to list behavioral characteristics than any other reason for the non-sacredness of local macaques ($\chi^2 = 55.758; df = 4; p = >0.001$). The distribution of responses regarding behavioral and spatial reasons for no local macaque sacredness is therefore much more even among respondents who answered ‘not yet’ than ‘no’. Despite apparent proportional differences between reasons given by ‘no’ and ‘not yet’ respondents regarding their perceptions of local macaque non-sacredness, these differences were not statistically significant ($\chi^2 = 2.738; df = 4; p = 0.603$). Therefore, throughout the remainder of this thesis ‘no’ and ‘not yet’ responses are grouped together to represent the perspective that local macaques in South Sulawesi are not considered sacred by Balinese transmigrants.

**PERCEPTIONS OF MACAQUES IN BALI**

In contrast to the weak relationship between humans and macaques in Sulawesi, the relationship is generally depicted as strong in Bali. Long-tailed macaque behavior was often described in the context of positive interactions with humans such as playing, requesting and receiving food, greeting temple guests, etc. Furthermore, the long-tailed macaques were typically depicted as well-habituated populations and thus satisfying that apparent criterion. For instance, in one interview a respondent stated that “in Bali it is usual for the monkeys to group together with humans” (TTalamb08, personal communication, December 16, 2010).
When asked about the macaques in Bali, one respondent said to me that they were “sacred because there is an emotional relationship between humans and monkeys. They are loved. If you kill them it is a sin” (TTalamb20, personal communication, December 26, 2010). From another person I heard that “In Bali [the monkeys] are still loved, almost the same as with loving fellow humans” (ANKbali03, personal communication, March 18, 2011). When asked to compare the macaques in Sulawesi and Bali one respondent replied that there is “more kindness from monkeys to humans in Bali. The monkeys in Bali also have thoughts because they often interact with humans; they carry babies like humans” (TTalamb12, personal communication, December 19, 2010). In this response long-tailed macaque are depicted as behaving kindly towards humans in Bali. Additionally, these macaques are said to have adopted the human-like characteristics of thought and infant handling by virtue of their frequent interactions with humans. Associating monkeys with human-like qualities is high praise from the Balinese, given their belief in the lowliness of animals in relation to humans and their ritually-enforced separation.

Like most good relationships, the one between macaques and humans in Bali also appeared to be based largely on good communication. I was told, “Monkeys in Bali can communicate with people” (TTalamb18, personal communication, December 24, 2010) and that they “are fast to understand [our] language” (ANKbali16, personal communication, March 25, 2011). To some, morphology was a key indicator of macaques’ mental faculties and their ability to commune with humans. In distinguishing between macaque species this respondent said “[their] thoughts are different. If they have a tail they understand humans” (TTcendh32, personal communication, February 14, 2011). This morphological perspective specifically excludes the local short-tailed beruk, or booted-macaques, of Sulawesi. When asked about the difference between macaques in Bali and Sulawesi, another respondent replied that the macaques “in Bali are indeed in protected forests, but are tame and understand our language” (TTcendh26, personal communication, February 5, 2011). This relatively vague idea of understanding humans was contextualized by another respondent who explained that in Bali “monkeys group together, but before the offerings are sanctified the monkeys don’t want to eat them. They wait until it’s finished. That is why they are loved” (ANKbali30, personal communication, April 1, 2011). Another respondent praised long-tailed macaque feeding behaviors by saying, “In Bali the monkeys wait until prayers
have finished to take the offerings so they are like humans in that they can distinguish the right time to eat” (TTalamb23, personal communication, December 27, 2010). Along these same lines I was also told that “in Bali there are smart monkeys. If there are offerings not yet prayed for the monkeys don’t want to eat them” (TTcendh25, personal communication, February 5, 2011). These responses imply that not only do macaques in Bali understand humans and their language, but also the ever-important religious ritual. This respondent also spoke of the proper etiquette for interacting with macaques in Bali, saying “[the monkeys] know if a person uses rough language towards them and become mad; if we meet them we must be polite” (TTcendh25, personal communication, February 5, 2011). Other respondents also spoke to the importance of appeasing the macaques in Bali, but primarily with gifts of food. Regarding the sacred monkeys located at temples visited by tourists I was informed that “every person who goes there may not disturb the monkeys and must bring gifts. If you don’t bring gifts the monkeys get mad” (TTcendh34, personal communication, March 1, 2011).

The necessity to please macaques in Bali, and to keep them safe, appeared to be dictated by spiritual forces to some extent. I was given several accounts describing risks of spiritual retribution associated with disturbing monkeys in Bali. Out of fear for these consequences many respondents expressed fear of disturbing the temple monkeys. For example, “[In Bali] near the sacred temple places there isn’t anyone brave enough to disturb the monkeys” (ANKbali27, personal communication, March 31, 2011). Another respondent expanded upon these potential consequences for harming macaques in Bali. When asked about the difference in treatment of macaques in Bali and Sulawesi he replied, “If monkeys in Bali are hunted there is a consequence; you can fall from your motorbike or get sick” (TTcendh33, personal communication, February 14, 2011). These consequences appear to be caused by the spiritual forces that oversee peoples’ interactions with the sacred macaques in Bali.

Those monkeys, especially the ones that live around the temples are considered supernaturally powerful. There is someone who takes care of them who can’t be seen by the human eye because it is a spirit. Only certain people can see them, probably Hindu priests. The reason, if we disturb them the monkeys will become angry and there are bigger monkeys which will become angry too. (ANKbali19, personal communication, March 28, 2011)
It was suggested that the spiritual forces protecting and avenging macaques in Bali are not present in Sulawesi. A respondent explained to me that in Bali “monkeys constitute a protector of nature; (they) cannot be hunted there. We can be made sick. If we hunt monkeys here we are safe” (ANKbali34, personal communication, April 2, 2011). Many respondents touched on this, insisting that in Sulawesi the macaques “are wild and if you hunt them it’s no problem” (TTalamb02, personal communication, December 12, 2010). Along with the freedom from spiritual consequences, these statements could be referring to the perceived lack of government and community sanctions for hunting and killing booted macaques. I was told in one interview that in Sulawesi “there are those who don’t like monkeys so if they meet them, they hunt them. There is no prohibition” (ANKbali25, personal communication, March 30, 2011). The reported absence of prohibitions in Sulawesi appears to be in stark contrast to the situation in Bali. Evidently, “monkeys in Bali now have a government prohibition against capturing or killing monkeys” (ANKbali32, personal communication, April 2, 2011). And it is not only the government that bans harmful treatment of macaques. The village head of Cendana Hitam explained to me that “[In Bali] there are sanctions from the community [adat] that are supported by the Balinese government” (TTcendh04, personal communication, January 25, 2011). Another respondent also implied that the Balinese would not be disturbing the long-tailed macaques with or without official government prohibitions. Of the macaques he said, “They are protected by the government, but through each individual as well, because the monkeys are sacred” (TTalamb10, personal communication, December 17, 2010). From these perspectives it appears as if community customs (adat) are at the root of the prohibitions, rather than government regulation.

The long-tailed macaques in Bali, however, were not unanimously praised by the Balinese transmigrants. There was a single respondent in my study who gave an explicitly negative opinion on the macaques in Bali, saying “in Bali I stay mad because I have corn and it keeps getting eaten” (ANKbali27, personal communication, March 31, 2011). This complaint is more typical of descriptions I heard regarding local booted macaques rather than the long-tailed macaques of Bali. Other respondents indicated that not all Balinese abide by the government and community prohibitions regarding macaques in Bali. “In general, sometimes there are still people who like to hunt. Those people don’t think about how our
own origins are from monkeys, they just see a wild animal” (ANKbali07, personal communication, March 22, 2011). Another respondent suggested that hunters in Bali do differentiate between macaques that may or may not be hunted by using a spatial criterion. He said, “In Bali hunters see if it is a wild monkey or temple monkey first” (ANKbali06, personal communication, March 22, 2011) and presumably would not capture or kill those monkeys that are from temple spaces. Aside from this distinction between temple space and non-temple space, there also seem to be regional variations in monkey sanctification and protection. For example, macaques in Bali Nusa Penida (Figure 11) appear to be differentiated from those on the main island in the minds of residents. One former Nusa resident explained that “if in Bali Nusa and (monkeys) eat crops, they can be chased away or hunted” (ANKbali15, personal communication, March 25, 2011). Another respondent who originated from Nusa Penida declined to comment when asked about the macaques in Bali saying that “people over there can tell stories, I’ve never gone to those places. Monkeys in Bali Nusa are only in the forest, not sacred” (ANKbali26, personal communication, March 31, 2011).

Recognizing macaque sacredness on the main island of Bali was not ubiquitous among Balinese transmigrants in my study either. Although many respondents did refer to the long-tailed macaques as sacred when they inhabit temple grounds, a vocal minority insisted that only the space they occupy is sacred and that macaque preservation in those spaces does not equate to macaque sanctification. One respondent, who was also a leader of the local Hare Krisna sect, made this distinction clear by saying, “Hindus do not praise monkeys as far as I know from the sacred texts. In the Ramayana there is Hanuman, but this does not have a relationship to anything in Bali. Just because [the monkeys] are preserved does not mean they are praised” (ANKbali01, personal communication, March 17, 2011). This issue was contextualized further in another interview where the respondent insisted that long-tailed macaques do not need to be sacred to be preserved. In his words,

Monkeys in Bali are not an animal that has been sanctified. They just live in the forest that must be preserved. Without a regulation from the government Balinese people already have prohibitions (and) preserve the forest. Monkeys are considered to be amusing animals that don’t disturb and are considered to be animals that are close with humans. (ANKbali36, personal communication, April 3, 2011)
Despite the disagreement on whether the long-tailed macaques themselves are sacred or if they simply benefit from occupying sacred ground, it seems clear that preservation of these macaques is associated only with the single criterion of sacred spatial contexts. Conversely, hunting of long-tailed macaques in Bali is associated with the co-occurrence of at least two criteria: (1) the presence of macaques outside of sacred spaces and (2) destructive macaque behavior towards crops.

**PRACTICING BALINESE HINDUISM IN SULAWESI**

Imagine three glasses set out on a table, each tinted a different color. A water pitcher is brought into the room and someone fills first the blue-tinted glass with this water, then the red glass, and finally the green one. All water, which came from the same source, now appears to take on the coloration of the glass into which it was poured. Despite appearances, we know that the water inside each glass is fundamentally the same. This is how Hinduism in Indonesia was described to me by a Balinese priest one afternoon amidst the hustle and bustle of wedding preparations. The color of each glass represents the cultural milieu of a
community, he explained, while the water represents Hinduism. In the priest’s words, “Many ethnic groups are also Hindu, but with different cultural aspects. The doctrine is the same; the culture is different” (Personal communication, December 3, 2010). In this perspective, the teachings of Hinduism unify communities that consider themselves to be otherwise culturally distinct, such as Balinese or Javanese Hindus.

Cultural differences in the practice of Hinduism are not limited in scope to a Balinese – non-Balinese dichotomy, but can be applied to community level differences among the Balinese as well. A few of my respondents also indicated that there could be cultural differences between transmigrant communities without there being differences in the actual practice of Hinduism. Regarding my inquiry about changes in religious practice after the transmigration one respondent said, “There is no difference fundamentally. The culture is a little different; different villages have small differences” (ANKbali06, personal communication, March 22, 2011). This perspective was echoed in another interview where a respondent replied, “The practice of Hinduism is the same. Only the customs (adat) and the traditions are a little different” (ANKbali17, personal communication, March 26, 2011). The conceptualization of religious practices being separate from culture was likely informing the majority of my respondents when they simply indicated that there were no changes in the practice of Hinduism after moving to Sulawesi (Figure 12).

Several respondents suggested that the practice of Balinese Hinduism has actually improved since the transmigration to Sulawesi. From one individual I heard that religious practices “got better; diligent prayer is the difference” (ANKbali34, personal communication, April 2, 2011). The focus on community based practices seemed to be of importance, as this respondent told me, “Practically, there is no [difference in the practice of Balinese Hinduism]. But there’s more discipline here because the many religious communities [in Bali] cannot always group together at the temples” (TTcendh20, personal communication, February 1, 2011). Grouping together at temples for religious ceremonies is interpreted here as being indicative of a cohesive religious community with disciplined ritual practices. I was told that in Bali during religious holidays the temples are open all day and individuals can arrive and pray on their own whenever they have time. In the transmigrant communities where I worked, however, religious holidays were commemorated with a single prayer ceremony that was attended by the entire village’s Balinese Hindu community. Many
Figure 12. Perceived changes in the practice of Balinese Hinduism after the migration to South Sulawesi as depicted by Balinese transmigrants (N = 100).

respondents were proud of this prioritization of community cohesion in the transmigrant communities. Along similar lines, respondents would suggest the transmigrant communities are more active in their practice of Hinduism than in Bali or “more advanced, enhanced” (TTalamb24, personal communication, December 30, 2010) because the community-wide ceremonies allow for religious and community leaders to address the entire village population of Balinese Hindus at once. For example, one respondent explained, “Here there is progress: here ceremonies are guided” (ANKbali03, personal communication, March 18, 2011). This increased spiritual guidance was considered to be a benefit of practicing Balinese Hinduism in the transmigrant communities.

While many respondents focused on enhanced community religious practices, some respondents focus on the increased use of religious texts as well, saying that in Sulawesi “there’s progress. In Bali they are smarter about corruption than the holy book” (ANKbali30, personal communication, April 1, 2011). Knowledge enhancement in this sense comes from increased dissemination and consultation of Hindu texts. Other respondents indicated that the transmigrant communities are more focused on religious texts than in Bali, telling me “Hindu teachings are higher here” (ANKbali05, personal communication, March 20, 2011) or that “there’s more enhanced knowledge here. Here we
are consistent with the literary teachings because of competition with other religions” (TTcendh30, personal communication, February 10, 2011). Respondents did not contextualize the exact nature of “competition” with other religions in South Sulawesi but several did vaguely address the presence of other ethnic groups and religions as a cause of minor changes in the practice of Balinese Hinduism among transmigrants. For instance, one individual informed me that Balinese Hinduism in South Sulawesi was “a little different; being side by side with other ethnic groups feels a bit different. Here we pay attention to other ethnic groups (and) respect each other” (TTcendh17, personal communication, February 1, 2011). Therefore, the diverse religious landscape of South Sulawesi was not necessarily perceived as a negative influence on Balinese Hinduism but it was acknowledged to be an aspect of the conscious transitioning of religious practices to the new transmigrant community space.

A few respondents said that they believed Hinduism is less complete in Sulawesi in terms of modernity or prosperity. For example, during one interview I was told, “Here we have less offerings. There are probably many factors, such as money” (TTcendh27, personal communication, February 6, 2011). Another respondent expanded on this thought, saying, “[Here] big offerings are not in accordance with the holy book like in Bali but now this is being studied and rectified. In the past offerings were consistent with the holy books that could come out of Bali” (TTcendh35, personal communication, March 9, 2011). In a different interview the respondent focused more on differences in the practice of Balinese Hinduism in Sulawesi and explained that “ceremonies cannot be as complete as in Bali… There are not yet all types of temples, only the three primary ones” (TTalamb15, personal communication, December 22, 2010). This response is referring to the fact that the temples constructed in the transmigrant communities are all public temples for worshipping God and the ancestors or for praising a specific ancestral group. There are no “functional temples” like the Pura subak for rice fields or the Pura melanting for markets. Instead, families maintain a place to present their offerings that is out in their fields or located within their store.

Many respondents also described changes that have occurred regarding the practice of Balinese Hinduism but did not indicate whether these were perceived to be positive or negative changes. These I have labeled ‘peripheral changes’ to indicate their purported
ambiguous relationship with the overall practice of Balinese Hinduism in the transmigrant communities. Peripheral changes most frequently referred to the fact that the transmigrants adapted to the religious diversity in South Sulawesi (as detailed above) as well as to the mixing of Balinese transmigrants from different ancestral areas of Bali who came together in the transmigrant communities for the first time. Overall, the transmigrants in my study indicated that the actual practice of Balinese Hinduism has not changed at all, or if it has, for the better. Therefore, it is unlikely that changes in religious practice have resulted in the lack of macaque sacredness in Sulawesi.

The Balinese Hindu philosophy of *Tri Hita Karana* was acknowledged by the majority of respondents as having a positive impact on the daily lives of the transmigrants. A Balinese transmigrant who taught biology at the local middle school told me that *Tri Hita Karana* was “applied in everyday life, resulting in the Balinese community living together peacefully” (TTcendh01, personal communication, January 22, 2011). Contextualizing everyday ‘application’ another respondent said of *Tri Hita Karana*, “We put it into practice; our behavior, our deeds – it is primary” (ANKbali11, personal communication, March 23, 2011). Several respondents more specifically related the application of *Tri Hita Karana* to performances of religious ritual, saying for example that it is “performed through ceremonies at the temples” (ANKbali09, personal communication, March 22, 2011) and that there are special “ceremonies to honor nature too” (TTalamb10, personal communication, December 17, 2010). Another respondent explained that *Tri Hita Karana* is “extremely sanctified because we live from the land, the place where we stay. There is a day for praying to our living space to give thanks to God for all he has given. Also if there is a successful harvest we give thanks with prayer at the temple” (TTalamb12, personal communication, December 19, 2010). The positive relationship between humans and God, as well as the surrounding environment, is reportedly maintained through active prayer rituals to honor them, while the positive relationship with fellow human beings is maintained through polite and peaceful interactions with community members and neighbors.

One respondent explained more specifically how the Balinese conceptualize the surrounding environment. He said “there are creatures that cannot be seen but are there. Not God, but spirits under God – *Buta Kala*. That is what is meant by ‘surrounding environment’” (ANKbali07, personal communication, March 22, 2011). This response
contextualizes previous responses regarding the spirits that are associated with long-tailed macaques at the monkey temples in Bali. It is these *Buta Kala* spirits that the Balinese do not want to upset and therefore protect the macaques that inhabit sacred temple spaces. Through this perspective the macaques, via *Buta Kala* spirits, are incorporated into practicing *Tri Hita Karana* in Bali.

Not every respondent felt that *Tri Hita Karana* was being practiced to the fullest in the transmigrant communities. In one interview I was told, “Application in everyday life is already running, although not yet 100%. The one that is not yet 100% is the relationship with nature because places are still being opened up” (ANKbali19, personal communication, March 28, 2011). This ‘opening up’ was likely a reference to forest spaces being converted to farmland or the trees being used for wood. He went on to suggest that the relationship between Balinese transmigrants and nature was running probably around “60-70%”. Another individual lamented that “many people mention [*Tri Hita Karana*] but the relationship with nature is isn’t here. They cut down trees randomly” (TTcendh34, personal communication, March 1, 2011). Similarly, in a different interview I was told that the transmigrants’ view of *Tri Hita Karana* was “not yet like Bali. There are still people who don’t take care of the surroundings; animals are hunted” (ANKbali18, personal communication, March 28, 2011). An older respondent in his mid-fifties felt that inter-generational difference is an important factor regarding the application of *Tri Hita Karana* among individual Balinese transmigrants. He explains, “For the older generation, they will keep preserving and loving the surroundings and the creatures in the area because it is in accordance with experiences in the native location” (ANKbali39, personal communication, April 5, 2011). Therefore, although several respondents did not feel that *Tri Hita Karana* is applied fully by every transmigrant, the majority did feel that the transmigrants are active in their practicing of *Tri Hita Karana* and thus creating harmony between humans and God, fellow human beings, and the natural world.
CHAPTER 5

DISCUSSION AND CONCLUSIONS

Long tailed macaques inhabiting Hindu temples in Bali may be considered sacred by the local Balinese residents (cf., Wheatley, 1999). More recent research suggests that perceptions of macaque sacredness are more strongly tied to space than to an inherent holiness for monkeys in the eyes of Balinese Hinduism (Fuentes et al., 2005; Jones-Engel et al., 2005; Loudon et al., 2006; Shillaci et al., 2010). The primary goal of this thesis was to understand whether Balinese transmigrants considered local macaques in South Sulawesi to be sacred and then why or why not. A related goal of this thesis was to ascertain the degree to which the respondents felt their practicing of Balinese Hinduism had changed since the transmigration. Regarding macaque sacredness, the majority of respondents (87%) indicated that local Sulawesi macaques were not sacred. Reasons for this lack of sacredness were attributed primarily to destructive macaque behavior and the distant spatial context in which macaques lived. Destructive behaviors create scenarios of conflict that are often characterized by negative attitudes towards nonhuman primates based on their perceived danger to humans and crops (Campbell-Smith et al., 2010; Lee & Priston, 2005). Circumstances unique to particular spatial contexts have also been recognized as important factors for understanding how the relationship between human and nonhuman primates manifests in different areas (e.g., temple sites across Bali [Loudon et al., 2006]). The following discussion will inform our understanding of ‘macaque sacredness’ and what it means for macaques to be considered sacred by the Balinese in general. By doing so, it contributes to the larger anthropological discourse on religion vis-à-vis conceptualizations of ‘sacredness’. Furthermore, this chapter also addresses the implications for conservation programs that seek to incorporate the perspectives and participation of local human communities into them.
PERCEPTIONS OF MACAQUE SACREDNESS: CONTRIBUTIONS TO THE ANTHROPOLOGY OF RELIGION

In this section, I contextualize my results with the existing literature on macaque sacredness in Bali. In the first subsection, I address the presence of ‘not yet’ responses regarding perceptions of macaque sacredness in South Sulawesi. The second section contains a discussion on perceptions of macaque sacredness as an aspect of Hinduism in general. The following subsection describes the importance of sacred spaces as a basis for macaque sacredness. The final subsection draws from the anthropological literature on religion more generally to further contextualize the importance of sacred spaces and to situate macaque sacredness in the greater anthropological discourse on sacredness.

The ‘Not Yet’ Perspective

The presence of many ‘not yet’ responses may be an artifact of Indonesian culture and the Indonesian language. In Indonesia it is customary to respond to ‘yes or no’ questions like “Are you married?” or “Have you ever been to Bali?” with “not yet” rather than “no”. Replying “no” carries the implication that you have no desire to ever do the thing in question and is considered an improper response. Therefore, the possibility exists that these ‘not yet’ respondents are just more accustomed to saying “not yet” than “no” to a ‘yes or no’ question. Alternatively, the respondents who answered ‘not yet’ may have been implicitly recognizing the dynamic nature of culture and its capacity for change. These responses might therefore imply that although booted macaques are not currently considered sacred by Balinese transmigrants, they may still be perceived as sacred at some point in the future. One of these respondents even explained how local macaques in Sulawesi could become sacred. He said, “We have a conviction that monkeys are species that must be considered sacred, but not all. Because we are new here there has not yet been the purification of monkeys here. It can still happen” (TTalamb23, personal communication, December 27, 2010). The following subsections address Balinese transmigrant conceptualizations of macaque sacredness in reference to the existing literature on macaque sacredness in Bali.

Macaque Sacredness through Hinduism

The suggestion that perceptions of macaque sacredness among the Balinese stems from the presence of macaques in Hindu texts and mythology (e.g., Hanuman) (Wheatley,
1999) can be addressed through this research. First, it is necessary to discuss the overall contribution of Hindu texts and mythology to the practices of Hinduism among the Balinese transmigrants. The concept of *adat* was described as being important for protecting the macaques in Bali as well as for governing the day to day lives of the Balinese transmigrants in South Sulawesi. Geertz (1980) has described *adat* as the ‘framework of social action’ that provides community order through sanctioned customs and norms regarding both religious and secular aspects of society. Adherence to a particular *adat* is determined based on membership in a particular moral community vis-à-vis temple congregations, and therefore inherently linked to sacred space (Geertz, 1980). A single *adat* can have a complex membership encompassing multiple ‘hamlets’ that are typically adjacent to one another, but can also transcend village boundaries or comprise only certain village subsections (Geertz, 1980). Variation in conceptualizations of *adat* from region to region can occasionally create conflict between a community’s local customs and the greater religious community of *Agama Hindu* (Hoey, 2003; Howe, 2005). In the transmigrant communities, however, *adat* is largely representative of an entire village population of Balinese Hindus, rather than legions of interspersed hamlets, given the recent creation of each community. Therefore, local norms and customs have been agreed upon based on their appropriateness to the values of the newly constructed transmigrant community that are more in line with contemporary interpretations of *Agama Hindu* (Hoey, 2003; Peterson, field notes). This prioritization of religious custom, rather than local custom, was alluded to by respondents in my study who stated that the practice of Balinese Hinduism is more in line with the sacred texts in the transmigrant communities than in Bali. This perspective was further substantiated in Hoey’s (2003) study of Balinese transmigrants in Sulawesi where a respondent said,

Here there is consciousness (*kesadaran*) about what we do. People feel at one together whereas in Bali everyone is different and on their own. The people here know more of religion (*agama*); they are better educated in this regard. It is true that in cultural matters (*kebudayaan*) we are lacking [when compared to Bali]; we could not preserve the arts. But in Bali you have everyday customs (*adat istiadat*) competing with religion. This is less a problem here. We have focused on the guidance (*pedoman*) of religion, not *adat*. Here we keep things close to the scriptures (*sastra*) so that we can all agree. It is religion that has become the base for carrying out *adat*. In Bali all faith is placed in the *Pendeta* (Hindu priest) to know how to do things, but here we discuss everything. Nobody is left in the dark about the details. (as cited in Hoey, 2003, p. 117)
It makes sense that *adat* in the transmigrant communities would be more focused on
general religious philosophy than on-site specific ‘local’ customs because of the regional
mixing that took place when creating the transmigrant communities. Households
participating in the transmigration were from different regions in Bali which would also have
been under the authority of different customary norms, or, *adat*. Many of the local customs
that individuals were used to in Bali would have become nonessential ritual for the majority
of people in the newly constructed transmigrant community had they been imposed, as those
people would not have any past experiences under that set of norms. Therefore, ritual
practices among each transmigrant community were consciously centered in the middle
ground of *Agama Hindu*, where everyone’s past experiences would be metaphysically
collective and thus *essential* to their present circumstances as a new community (cf., Knittel,
1974).

If Hindu texts were the most important factor contributing to macaque sacredness,
then I would expect Balinese transmigrants in South Sulawesi to identify with perceptions of
local macaque sacredness, given that many transmigrants perceived no change in the overall
practice of Hinduism and some even suggested a closer alignment with sacred Hindu texts.
In fact, seven of the 13 respondents who confirmed that local macaques were considered
sacred gave religious reasons stemming from Hindu texts and mythology as their explanation
for those perceptions. Although these individuals support Wheatley’s (1999)
conceptualization of macaque sacredness, they comprise far too small a subset of the
respondents to sufficiently explain the basis for perceptions of macaque sacredness among
the Balinese. Therefore, there must be factors aside from Hindu texts and mythology
accounting for both the perceptions of macaque sacredness in Bali and the overall lack of
macaque sacredness among Balinese transmigrants in South Sulawesi.

**Macaque Sacredness and Temple Space**

If inhabiting sacred space is the most important factor for macaque sacredness (cf.,
Fuentes et al., 2005; Schillaci et al., 2010), then it stands to reason that macaque sacredness
may exist outside of Bali as long as this spatial criterion is satisfied. The presence of
multiple temple complexes in the transmigrant villages of South Sulawesi presents the
opportunity to investigate the relevance of sacred spaces for shaping perceptions of local
macaque sacredness. Inhabitance of sacred temple spaces appeared to be an important factor contributing to Balinese perceptions of macaque sacredness based on the large amount of respondents who indicated that local macaques were not sacred due to their absence from temple spaces in the transmigrant communities.

Sacred space, however, is not the only factor related to perceptions of macaque sacredness. Macaque behavior between different spatial contexts (e.g., sacred space or agricultural space) has the power to influence how Balinese transmigrants perceive local macaque populations regardless of sacred space occupation. The importance of macaque behavior for its effect on perceptions of macaque sacredness is supported by recent research suggesting that even the long-tailed macaques on the main island of Bali are dissuaded from crop raiding by farmers with the use of pellet guns (Shillaci et al., 2010). These authors’ findings suggest that in Bali there is no ubiquitous sacredness for temple monkeys if they begin to interfere with farmers’ livelihoods. The following quotation from a respondent in this study reinforces this perspective: “In Bali [the macaques] are safe at the temple sites except if they are naughty and leave their boundary and start disturbing crops. Then they can be captured or hunted because they are in the wrong” (TTalamb06, personal communication, December 16, 2010). Responses like this suggest that macaques are of secondary importance to the transmigrants compared to their own agricultural production and livelihood. These conflicts over crop raiding further indicate that macaques are not perceived as sacred due to their presence in Hindu texts because such sacredness would transcend spatial demarcations and be applied to macaques regardless of their spatial context. This research, therefore, supports the assertion that inhabitance of sacred temple space is more responsible for macaque populations being considered sacred than an inherent holiness for all monkeys through Hinduism. As demonstrated above, however, there is much more to macaque sacredness than inhabitance of sacred space alone. The following subsection details the confluence of factors contributing to perceptions of macaque sacredness among the Balinese.

**Macaque Sacredness through Ritual Practice**

This research can help extend our understanding of why sacred spaces are an important basis for perceptions of macaque sacredness. Rather than being simply sacred landscapes in which all present flora and fauna are consequently revered, sacred temple
spaces are also place settings for ritual *productions* of sacredness (Peña, 2011). These ritual performances of sacredness are ultimately what contributes to the spaces themselves, as well as the resident macaques, being perceived as sacred. Here, I address how macaques also contribute to ritual productions of sacredness at temple sites in Bali but not in South Sulawesi. This discussion will therefore situate ritual performances (i.e., practice) as the key basis for perceptions of macaque sacredness among Balinese Hindus.

The philosophy *Tri Hita Karana* exemplifies how Balinese Hinduism is put into practice through ritual performances. Perceptions of the degree to which *Tri Hita Karana* is ‘maintained’ in the transmigrant communities will therefore contribute to a discussion of the relationship between perceptions of macaque sacredness and the practice of Balinese Hinduism (cf., Peña, 2011). Although *Tri Hita Karana* was widely acknowledged to be practiced in South Sulawesi, the macaques were not considered sacred by the majority of transmigrants. An important factor to explain this discrepancy is that in South Sulawesi the macaques are not associated with ritual performances (i.e., expressions of *Tri Hita Karana*) and therefore do not obtain symbolic value via ritual productions of sacredness. In contrast, the long-tailed macaques in Bali are present at temple spaces during ritual expressions of *Tri Hita Karana* and therefore become sanctified through their presence. The long-tailed macaques’ perceived ‘understanding’ of the ritual, indexed through their waiting to consume offerings until after sanctification, situates them as passive participants (as opposed to active disruptions) in ritual performances and thus to an extent they facilitate ritual productions of sacredness. Perceptions of sacredness, therefore, become attached to the temple monkeys in the form of symbolic value based on their association with ritual performances. This perspective reconciles the apparent discrepancy between the perceived active application of *Tri Hita Karana* among Balinese transmigrant communities in South Sulawesi and the lack of macaque sacredness among those communities. If local booted macaques are not associated with the ritual performances of *Tri Hita Karana* there is less of a foundation on which to base perceptions of macaque sacredness. In other words, there is no opportunity for the Balinese transmigrants to *practice* macaque sacredness in South Sulawesi.

The *Buta Kala* spirits are also relevant to discussions of ritual performance because many rituals, and certain daily offerings, are carried out to appease these spirits specifically. To the Balinese, “[the *Buta Kala*] spirits are said to be everywhere – in nooks and crannies
around the house, at crossroads, village boundaries, in trees and ditches” (Howe, 2005, p. 70). The Buta Kala are said to possess individuals who have neglected to provide offerings and participate in rituals honoring any of the gods or spirits, but can also be due to immoral behavior like selfishness or being aggressive and fighting, which are typically regarded as animalistic behaviors among the Balinese (Howe, 2005). To appease these spirits after one feels they have been subjected to their wrath, the individual and their family must placate the demon spirits with an additional cleansing ritual that typically involves a blood offering through a sacrificial animal (Howe, 2005). Therefore, when Buta Kala spirits inflict harm on people who disturb the temple monkeys in Bali, as many of the respondents suggested, it may be in retribution for what is regarded as immoral behavior.

Although Buta Kala spirits are still present in South Sulawesi, they do not appear to be directly associated with local macaques. This distinction may be largely due to the fact that booted macaques are thought to reside deep in the forest and are therefore not associated with aspects of the Balinese transmigrants’ symbolic culture as it pertains to village life and spirituality vis-à-vis ritual performance. For example, on a more personal note I participated in a household ceremony the night before the Balinese ‘New Year’ holiday, Nyepi, wherein the family and I circled the house three times chanting, screaming, beating the ground with sticks, and myself beating a metal rod against a sheet of metal, to send out the malevolent spirits that had accumulated over the course of the previous year. This cleansing ceremony was followed by a village wide procession around the outskirts of the town in a larger scale ritual performance, but this time with individuals using torches to help exorcise the spirits from their village space. The following day marks the beginning of the new year and is commemorated with 24 hours of self-reflection and fasting to ensure a peaceful and harmonious beginning (Jensen & Suryani, 1992). This ritual cleansing is just one example of the importance of devoting ritual performances to the Buta Kala spirits in the transmigrant communities.

Macaque sacredness among Balinese Hindus can therefore be best understood as an intersection between macaque spatial context, macaque behavior, and the symbolic culture of local Balinese, united in ritual performances of sacredness. Regarding the macaques specifically, ‘sacredness’ is too simplistic and foreign a word, with colonially imposed meaning (Howe, 2005), to capture the complex symbolic value of long-tailed macaques at
temple sites in Bali. It is better to conceive of temple macaques as having a dynamic and multifaceted symbolic value, rather than as a sacred entity. The absence of this symbolic value for booted macaques in South Sulawesi can be understood through a combination of negatively perceived macaque behaviors, macaque habitat of no symbolic value, and the absence of historical associations between macaques and Balinese transmigrants, as indicated by the respondents in this research. This reconceptualization of ‘macaque sacredness’ as a complex manifestation of symbolic value should contribute to a more general rethinking of the anthropological understanding of sacredness as an imposed, etic category in certain non-Western contexts that have potentially been characterized by foreign valuations of ‘sacredness’. These anthropological misconceptions may stem from the early dichotomization of religious belief and ritual as the explanatory model for perceptions of sacredness (cf., Durkheim, 1915). Therefore, current models for understanding emic perceptions of ‘sacredness’ for particular entities should be developed in reference to the performative contexts from which they derive symbolic value.

**Navigating Symbolic Spaces in Balinese Transmigrant Communities**

When the respondents in this study referred to macaque spatial context in Sulawesi they described two main scenarios: first, the issue of proximity and accessibility to humans (e.g., deep forest habitat); and second, the space’s culturally perceived importance (e.g., agricultural or spiritual) (Figure 13). Proximity to humans is an interesting facet of spatial context because it can be considered positive or negative, depending on the situation. Close living spaces allow for habituation and domestication as in Bali, but can also present opportunities for destructive behaviors and conflict, as with urban macaques in northern India (Srivastava & Begum, 2005). According to the respondents in this study it seems important that the macaques in Bali frequently associate and interact with humans, as this level of closeness creates feelings of affection that contributes to perceptions of ‘sacredness’. Furthermore, the urban temple environment of Bali apparently does not present as many opportunities for the macaques to be destructive to local agricultural fields as other places.

The variation between transmigrant temple sites and those in Bali are best understood in the context of their construction. In the transmigrant villages, temples were constructed by
the transmigrants shortly after their arrival in the area. Before beginning the temple building process the transmigrants were charged with the task of clearing forest for both living space and agricultural fields (Davis, 1976). Therefore, from the outset the transmigrant areas have been consciously separated into forest zones and living spaces. When the transmigrants first arrived and began converting forest zones into farmland the monkeys were a significant pest. The forest was not only undesirable as a source of monkey crop raiders, but it also housed the destructive wild pig and many dangerous snakes. Therefore, it benefited the transmigrant farmers to hunt local wild animals and cut down their forest habitat until it was far enough away to deter crop raiding and increase safety.

When temple construction began there were already distinct boundaries between ‘village’ and ‘forest’ in the transmigrants’ conceptualization of the land. Furthermore, the monkeys had already been negatively perceived by the transmigrants as a result of early crop

Figure 13. *Pura Dalem in Balirejo* depicting the sharp distinction between forest space and temple space.
raiding and therefore relegated spatially to the unoccupied forest zones and conceived of as an ecological pest. The temples were then built in the village zone, which is unassociated with macaque populations (Figure 13). Therefore, an important distinction between temple complexes within and outside of Bali is the issue of unknown and known temple origins, respectively. The children born in Bali today are born into a culture in which macaques and humans have already coexisted at these temple sites for possibly thousands of years (Fuentes et al., 2005). Consequently, the historical origins of ‘monkey temples’ are not well known, although the tradition is maintained. As one of my respondents put it, “The monkeys have already been in Bali and the history of monkeys and people there cannot be known” (TTalamb07, personal communication, December 16, 2010). This situation is drastically different for Balinese transmigrants in South Sulawesi because the history of their relationships with the surrounding environment, including sacred temple sites and monkeys, began with them just 30 or 40 years ago. Therefore, the historical and spatial context of the transmigrant temple sites themselves is very important for understanding transmigrant perceptions of the surrounding temple environment.

The Pura Puncak in each village is an exception to the practice of constructing transmigrant temples in the well-defined village area as it is usually built on the forest edge/mountain slope environment to facilitate access to sacred water from the mountain (Figure 14). Many residents of Cendana Hitam indicated that the macaques occasionally group together in a large beringin tree (Ficus benjamina) near the village’s Pura Puncak during or after ceremonies. These stories were confirmed one evening when I witnessed a group of booted macaques playing and grooming each other in that very tree. Although the monkeys did not enter the temple area on this occasion, villagers indicated that they sometimes do to eat offerings that have been left after a ceremony.

The long-tailed macaques of Bali are famously known to consume religious offerings left in temple sites (Fuentes et al., 2005; Louden et al., 2006; Wheatley, 1999) but this does not mean that those offerings are specifically for the macaques (in this sense ‘religious offerings’ are differentiated from the direct provisioning of macaques at temple sites as described by Fuentes et al., 2007). Howe (2005) has also made this point, illustrating that only the “immaterial essence” is absorbed by the spirits to which the prayers are directed, and the leftover portions represent the husk of the offering and should be consumed by the
families who brought them or left behind for the animals. For the transmigrant areas included in this study dogs are also allowed to enter the temples freely (Figure 15) and, like the long-tailed macaques in Bali, consume offerings of rice, fruit, and cakes that are left out after they have been sanctified through prayer. This occurrence, however, does not imply there are sacred dogs in Balinese transmigrant communities, but rather that animals in general are not chased away if they are not disruptive to the ceremony or its offerings before sanctification.

**CONSERVATION IMPLICATIONS**

This thesis contributes to the discourse on conservation programs by addressing the importance of local human communities’ perceptions of the nonhuman primates targeted for conservation. As such, the utility of ethnoprimateology for informing conservation projects is emphasized because humans do not simply react to nonhuman primate behavior, but they
interpret it. These interpretations of nonhuman primate behavioral ecology become situated in the local humans’ conceptualizations of their own subsistence and symbolic culture. For example, utilization of cultivated resources by booted macaques was interpreted negatively by Balinese transmigrants in this research, thus situating the macaques as ecological pests in relation to Balinese subsistence culture, rather than as aspects of their symbolic culture like the macaques in Bali. Therefore, nonhuman primates can occupy both ecological and symbolic conceptual spheres in the minds of sympatric human communities, although the binarism itself is etically conceived. These ecological and symbolic spheres, however, are not necessarily mutually exclusive or static through time and the same nonhuman primate populations can occupy different facets of both, creating a dynamic web of tangible and conceptual interconnections (see Appendix D). Ethnoprimateologists are in the unique position to develop an understanding of how nonhuman primates are perceived by sympatric
human populations, in both the ecological and symbolic spheres, as well as the ecological niche of those nonhuman primates. Each of these features must be addressed to create realistic conservation programs that have a better chance of long-term success.

One issue regarding conservation programs stemming from the resource and habitat taboos of a particular community is the negative impact of migrant populations on those resources (Colquhoun, 2005; Riley, 2007b). This research focused exclusively on (trans)migrant populations to understand their conceptualizations of the land in which they settled and the process of applying their own cultural meanings to it. Although there were no existing resource and habitat taboos from native residents, the transmigrants themselves came from a culture of resource and habitat taboos in temple spaces on Bali under which local macaques are protected (Fuentes et al., 2005). This research found that the site-specific taboos protecting macaques in the transmigrants’ ancestral home were not applied to the macaques in South Sulawesi because of conflicts over the transmigrants’ subsistence agriculture and the lack of symbolic value attributed to the local macaques. Conservation efforts that aim to utilize existing taboos should strive to work closely with all communities that have access to the protected habitat to develop strategies that are consistent with the dynamic nature of culture and the presence of multiple cultural identities and conceptualizations of ecological space. As this research suggests, even migrant populations with a history of nonhuman primate species preservation may not conceptualize new ecological spaces as being protected under the same taboos. Therefore, migrant populations should be actively incorporated into the larger regional identity to promote cooperation with existing regional conservation programs.

Through a dialogue between conservationists and local humans, conservation programs can be developed that successfully align outside conservation goals with local cultural identity. Conservationists who work with little dialogue between themselves and local humans, but still incorporate local cultural beliefs such as resource and habitat taboos into their programs, run the risk of establishing conservation guidelines on local nonessential ritual (Knittel, 1974). As nonessential rituals are those that do not successfully integrate past experience with conceptualizations of the present, they do not constitute a reliable base on which to construct local conservation programs (Knittel, 1974). For example, the Balinese transmigrants in this thesis did not maintain hunting taboos that existed in their collective
past from Bali when they arrived in South Sulawesi. If a conservation program had been developed with Balinese transmigrants in South Sulawesi that utilized existing Balinese taboos protecting macaques in temple spaces in Bali, it would run the risk of becoming nonessential ritual to the local Balinese transmigrants due to the lack of cultural preference for applying these taboos to the booted macaques. Ethnoprimateologists that work closely with human populations can help sort essential ritual from nonessential ritual as it relates to local nonhuman primates, and therefore inform conservation programs that are culturally relevant and more likely to become incorporated into preexisting essential ritual.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

My research may have been affected by a few limiting factors. Although Bahasa Bali is the primary local language of Bali and is still used in the Balinese transmigrant communities I conducted interviews in Bahasa Indonesia for several reasons, both theoretical and practical. Due to the multi-ethnic transmigrant village and sub-district level communities, as well as the Indonesian government’s push for use of a single national language, Bahasa Indonesia has become normalized in the everyday lives of Balinese transmigrants. Hindu texts, which were prioritized after the imposition of Suharto’s New Order, also appear primarily in Bahasa Indonesia, Sanskrit and/or English, rather than in Bahasa Bali. Furthermore, as demonstrated by Howe (2005), words such as sacred (suci; sacral) and culture (budaya) are recently introduced colonial concepts that do not exist in the Balinese language and are therefore borrowed from their usages in Bahasa Indonesia. Regarding practicality, I had previously decided against using a translator at all due to the absence of fluent English speakers in the transmigrant communities who could translate from Indonesian to English or from Bahasa Bali to English. Additionally, the participant observation model of living in each community where I conducted interviews allowed for more organic interview sampling and stronger relationship development that would not have been feasible with a translator who I would only be able to work with on certain prearranged days and times.

Regarding the sample, I was not able to control for gender while analyzing my dataset. If I had been able to interview a substantially larger number of female Balinese transmigrants then I may have been able to explore another dimension of the transmigrant
experience and their relationship with local macaque populations. Another potential influential factor worthy of examination in future research projects is affluence. I was unable to control for affluence within my sample but this factor may well have been of importance for understanding differences in perceptions of macaque sacredness between Bali and Sulawesi. The affluence of Balinese monkey temple sites, based largely in tourist money, compared to the non-affluence of the transmigrant farming communities is worth noting. It would have been interesting to see if there are differences in transmigrant opinions regarding macaque sacredness between economic strata (cf., Chalise & Johnson, 2005). It would also be interesting to compare perceptions of macaque sacredness in Bali among different economic classes or socio-religious castes. Further research regarding the influence of economic factors within the human-macaque interface is worthy of consideration.

Future studies should also seek to more systematically assess the macaque population sizes and other demographic information. Data regarding the macaque home ranges, diet and social systems would be helpful in understanding the degree to which the macaques are being affected by humans as well. A systematic analysis of macaque diet in the area would also assist researchers in finding the amount of actual macaque crop raiding. Future projects should aim to understand the relationship between macaques and humans in Sulawesi from an historical context by discussing the local macaques with native residents and other long-term migrants.

**CONCLUSIONS**

The concept of macaque sacredness can be regarded in two main ways: as belief (Radcliffe-Brown, 1964) and as practice (Peña, 2011). Wheatley (1999) conceptualized macaque sacredness in Bali as a belief originating in the Hindu epic, the Ramayana, and manifesting currently in the philosophy Tri Hita Karana. This perspective was supported by some of the transmigrants in this study regarding their understanding of macaque sacredness in Bali. Other respondents suggested that macaque sacredness in Bali is a product of their perceived participation in (i.e., observation of) religious rituals at the temple sites they inhabit. These responses situate long-tailed macaques in Bali as helping confer sacredness onto themselves through ritual practice. Therefore, inhabitance of temple spaces is an important facet of macaque sacredness in Bali (Fuentes et al., 2005), but only in its capacity
to apply symbolic value onto local macaques via ritual performances at which they are present (cf., Peña, 2011) as well as their association with economic value through monkey temple tourism (Fuentes et al., 2007; Loudon et al., 2006; Schillaci et al., 2010).

Respondents who indicated that macaques in South Sulawesi were sacred upheld Wheatley’s (1999) explanation that macaque sacredness stems from a belief in particular animals or aspects of nature being sacred according to Balinese Hindu philosophy. These respondents, however, were in the minority. Most transmigrants did not associate local macaques with philosophical conceptualizations of sacredness. Instead, the majority of respondents provided pragmatic reasons for the lack of macaque sacredness in South Sulawesi, such as macaque behavior and living space. Destructive macaque behavior not only contributes to negative perceptions of them in general, but it also situates the macaques as obstructions to increased economic value (cf., Fuentes et al., 2007; Loudon et al., 2006; Schillaci et al., 2010). Furthermore, the spatial separation of local macaques from sacred temples in the transmigrant communities prevents the specific application of sacredness onto the macaques through ritual practices. ‘Practicing’ macaque sacredness is therefore not applicable for the Balinese transmigrants in South Sulawesi due to the lack of ritual inclusion for the local macaques, as well as the lack of overall interactions between macaques and humans in the context of sacred space. Although sacred temple sites are present in the Balinese transmigrant communities, these sites do not share a deep connection with the surrounding flora and fauna as they do in Bali.

The relationship between the Balinese transmigrants and their surrounding environment in South Sulawesi, including the local macaques, can best be understood in reference to their overall adjustment to this new environment. Upon arrival, the Balinese transmigrants were forced to modify the local ecology for subsistence purposes as well as symbolic purposes. Subsistence based ecological changes occurred through the implementation of wet rice agriculture and agroforestry. Modification of the local ecology for the purpose of applying symbolic cultural meaning to those spaces occurred through events like temple construction or, as with Alam Buana, moving a sacred beringin tree out of the forest and planting it near the Pura Dalem (i.e., in village space) for ritual purposes (Peterson, field notes). Local Sulawesi macaques, rather than be conceptualized as a religious facet in the new symbolic sphere of cultural adjustment, were thought of as an
ecological entity due to the lack of historical cultural associations with the macaques, as well as the macaques’ destructive behavior towards the transmigrants’ mode of subsistence.

The respondents in my study indicated that the long-tailed macaques in Bali were primarily regarded as occupying a symbolic conceptual sphere in which they are associated with religious ritual practices and form ephemeral bonds with individual humans who visit the temples in which they are located. Distinction between the symbolic sphere and ecological sphere, however, is quite dynamic and the nature of macaque behavior can move them between these conceptual spheres. For instance, if macaques in Bali begin to damage crops, and therefore create disturbances in the ecological sphere, they can be regarded as any ecological pest and chased away, captured or shot (Peterson, field notes; Shillaci et al., 2010). Therefore, instead of thinking in terms of macaque sacredness in Bali, or lack thereof in Sulawesi, it may be more appropriate to refer to the relationship between the Balinese and long-tailed macaques as one of conditional tolerance. The symbolic value attributed to temple macaques in Bali through their association with ritual performances is augmented by the additional economic benefit through monkey temple tourism in certain areas (Loudon et al., 2006). These macaque populations also receive benefits by means of a stable habitat and food source, which alleviates conflict with farmers in the ecological sphere. By contrast, the macaques in Sulawesi do not have ritually conferred symbolic value and do not contribute to local economic value as tourist objects. Instead, these macaques are seen largely as harmful and disruptive due to their consumption of local crops. Perceptions of macaque sacredness (i.e., symbolic value) among Balinese transmigrants, therefore, are hindered by the absence of three main factors. These missing factors include: (1) Macaque behavior that is not destructive to local livelihoods; (2) macaques living in a sacred spatial context in which they can be associated with religious ritual practices and also one that maximizes opportunities for habituation; and (3) historical associations with macaques to provide a basis for their inclusion in the symbolic sphere of local humans. Until these factors are satisfied, local macaques may not be able to move out of the ecological sphere and gain symbolic value in the minds of Balinese transmigrants.
REFERENCES


Crate, S. A. (2008). Gone the bull of winter?: Grappling with the cultural implications of and anthropology's role(s) in global climate change. Current Anthropology, 49(4), 569-595.


APPENDIX A

INTERVIEW QUESTIONS IN ENGLISH AND INDONESIAN
Interview Questions in English:

A) 1. Age
A) 2. Sex
A) 3. Place of birth
A) 4. Age when moved to Sulawesi
A) 5. What year
A) 6. Address (village) here
A) 7. Employment

B) 1. What species of monkey lives in the forest near here?
B) 2. How many monkeys live in the forest near here?
B) 3. How many times have you seen or come across monkeys?
B) 4. Can you list the types of food that the monkeys can eat?
B) 5. What types of food have you seen the monkeys eat?
B) 6. Where do these monkeys group together?
B) 7. Do these monkeys ever enter the temples?
B) 8. If so, how do people feel about it? What is their reaction?
B) 9. What is your opinion about monkeys here?
B) 10. What is the origin of monkeys here?
B) 11. Do you know any stories about the monkeys here?

C) 1. Is there a difference in opinion between Balinese people here and other people regarding the forest and the monkeys that live there?
C) 2. Are there monkeys here considered sacred by Balinese residents? Why?
C) 3. Are there government restrictions here for land use and hunting activities in the forest?
C) 4. Are there people here, other than the Balinese, who have taboos or prohibitions regarding land use or hunting activities in the forest here?
C) 5. How do the Balinese feel about that taboo or prohibition?
C) 6. What Hindu symbols are important in Sulawesi?
C) 7. How do Balinese people here feel about the philosophy of Tri Hita Karana?

D) 1. Can you tell me about the opinion or perspective of Balinese people regarding monkeys in Bali?
D) 2. Do you think that the monkeys here are different from the monkeys in Bali?
D) 3. Do you think monkeys here are treated differently than monkeys in Bali?
D) 4. Do you think there’s been a change in the practice of Hinduism by the Balinese here?
D) 5. How do you think the perspective of Balinese residents towards nature or the surrounding environment has changed since moving to Sulawesi?
D) 6. From Hinduism what is most important to be taught to children from their families here?
D) 7. Is there anything else that I need to know so I can understand Hinduism in Sulawesi better?
Interview Questions in Indonesian:

A) 1. Umur
A) 2. Jenis kelamin
A) 3. Tempat lahir
A) 4. Umur waktu pindah ke Sulsel
A) 5. Tahun berapa
A) 6. Alamat di sini
A) 7. Pekerjaan

B) 1. Monyet jenis apa yang tinggal di hutan dekat dari sini?
B) 2. Berapa jumlah monyet tinggal di hutan dekat dari sini?
B) 3. Berapa kali anda pernah melihat atau berhadapan dengan monyet?
B) 4. Anda bisa mendaftari jenis makanan yang bisa dimakan oleh monyet-monyet itu?
B) 5. Jenis makanan seperti apa yang dimakan monyet-monyet itu, yang pernah anda lihat?
B) 6. Monyet-monyet tersebut berkerumun di bagian mana?
B) 7. Apakah monyet-monyet pernah memasuki daerah pura?
B) 8. Kalau begitu, bagaimana pendapat para orang? Apa reaksinya?
B) 9. Apa pendapat anda tentang monyet-monyet di sini?
B) 10. Dari mana asli monyet-monyet di sini?
B) 11. Apakah anda tahu cerita tentang monyet-monyet di sini?

C) 1. Apakah ada perbedaan pendapat antara orang Bali di sini dan para orang yang lain mengenai hutan dan monyet-monyet yang tinggal di sana?
C) 2. Apakah ada monyet-monyet di sini dianggap suci oleh penduduk Bali? Kalu tidak, kenapa?
C) 3. Apakah di sini ada pembatasan dari pemerintah untuk penggunaan lahan dan kegiatan berburu di hutan di sini?
C) 4. Apakah penduduk lain di sini, selain orang Bali, mempunyai tabu atau larangan mengenai penggunaan lahan dan kegiatan berburu di hutan di sini?
C) 5. Bagaimana pandangan penduduk Bali di sini terhadap tabu atau larangan itu?
C) 6. Lambang-lambang (bentuk pratima) agama Hindu apa yang penting di Sulawesi?
C) 7. Bagaimana pandangan orang Bali di sini tentang filosofi Tri Hita Karana?

D) 1. Bisakah anda bercerita tentang pendapat atau pandangan orang Bali terhadap monyet-monyet di Bali?
D) 2. Apakah menurut anda monyet-monyet di sini berbeda dengan monyet-monyet di Bali?
D) 3. Apakah menurut anda monyet-monyet di sini diperlakukan secara berbeda dengan monyet-monyet di Bali?
D) 4. Apakah menurut anda perubahan dalam penerapan agama Hindu oleh penduduk Bali di sini?
D) 5. Bagaimana pendapat anda tentang pandangan penduduk Bali di sini terhadap alam atau lingkungan alam yang berubah sejak mereka berpindah ke Sulawesi?
D) 6. Dari agama Hindu apa yang paling penting untuk diajarkan kepada anak-anak dari keluarganya di sini?
D) 7. Apakah ada hal yang lain, yang perlu saya ketahui supaya dapat memahami agama Hindu di Sulawesi dengan lebih baik?
APPENDIX B

RESPONDENT IDS
Respondent IDs were constructed based on the name of the respondent’s sub-district, village and interview order in that village. For example, the first interview I conducted was in the sub-district of Tomoni Timur and village of Alam Buana. Therefore, this respondent’s ID is TTalamb01. The 100th interview I conducted was in the sub-district Angkona and village Balirejo, resulting in the respondent ID ANKbali40.
APPENDIX C

VILLAGE TEMPLE SURVEY
The following survey was administered for each public temple in the three transmigrant communities in which I conducted research. Answers were obtained in face-to-face interviews with the village heads of Alam Buana and Cendana Hitam. In Balirejo the village administrator filled out the temple information on his own. Distance to forest from each temple was estimated by the respondent.

The survey questions were as follows:

(1) Temple name:
(2) Year constructed:
(3) How many times do people pray here in a year?:
(4) What is the distance from this temple to the forest?:
(5) Do monkeys ever enter this temple?:
   a) Never; b) Rarely; c) Sometimes; d) Often; e) Daily
(6) If the monkeys enter the temple, what do they do?
(7) If the monkeys enter the temple, what do people do
APPENDIX D

CONCEPTUAL MODEL FOR HUMAN-NONHUMAN PRIMATE INTERCONNECTIONS IN SYMBOLIC AND ECOLOGICAL SPHERES
This diagram presents the relationship between Balinese transmigrants and booted macaques in South Sulawesi in reference to the transmigrants’ symbolic and ecological conceptual spheres. From the top, left: As suggested by the respondents, macaque sacredness in South Sulawesi, although rare, is based on Hindu texts and aspects of macaque morphology, all of which occupies their symbolic sphere. Different aspects of macaque morphology were also linked to the absence of macaque sacredness, along with the lack of historical associations with macaques and their distance from sacred temple spaces, each of these facets also occupying their symbolic conceptual sphere. The ecological sphere, motivated primarily by subsistence, also includes the absence of a temple habitat for macaques as one of its facets due to the agriculturally-motivated separation of village space and forest space into which the temples were constructed. Macaque behavior that is destructive to local crops was one of the most salient causal factors for the lack of macaque sacredness and is located in the transmigrants’ ecological conceptual sphere.